Towards Transformative Climate Justice: Key Challenges and Future Directions for Research

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Summary

From forest fires in Australia and California to record floods in Jakarta and the UK, it is clear that no area of the world is immune from the effects of climate change. Many countries and cities have woken up to this fact and have declared climate emergencies. We have witnessed unprecedented social mobilisation around the issue, including the school strikes and the rise of direct-action movements such as the Extinction Rebellion.

Mainstream discourses are increasingly framed around the recognition that climate change is fundamentally a question of justice, in terms of the responsibility for the problem and its mitigation; that vulnerabilities to the impacts of climate change are both a reflection of, and exacerbate, structural injustices; and that there will be residual impacts beyond the capacity to mitigate and adapt or what might be deemed 'tolerable' impacts. Climate justice is understood in a multitude of ways and reflects the fact that the causes and effects of climate change, as well as efforts to tackle it, raise ethical, equity and rights issues. The language of climate justice is increasingly omnipresent in the discourse of academia, civil society, social movements, some governments, cities and even some businesses. But the mechanisms for delivering it are weak and under-developed. This paper shows that definitions of what is covered by climate justice, at what scales, how it can be measured, and which are the best means to deliver it are all heavily contested.

These differences in the understanding of climate justice matter because they have serious implications for those countries, regions and communities on the front line of the impacts of climate change and are increasingly apparent in efforts to accelerate decarbonisation. Given the closing window for effective responses to avoid the worst effects of climate change, we have to work with the institutions, policy processes, and economies we currently have to secure the best outcomes possible, while simultaneously advocating for and building alternatives that address deeper structural concerns.

Towards this end, we suggest that transformative climate justice is a useful concept to focus attention on the need to disrupt power relations and shift decision-making processes which lock in and reproduce climate injustices. We propose it as a way of, first, moving beyond the 'silos' of mitigation and adaptation and, second, of bridging the gap between justice concerns in climate change funding and actual interventions on the ground. We argue that addressing structural root causes (historical injustices, land rights, political participation and governance) are key to achieving climate justice goals in the long term.

Authors

Peter Newell is Professor of International Relations at the University of Sussex. He is a social scientist with more than 25 years' experience of working on climate change. He has authored and co-authored four books on the topic of climate change and edited several others. He has also published in a wide range of leading journals such as *Nature, Science, Nature Climate Change, Global Environmental Change, Climate Policy, Global Environmental Politics,* and many others. He has worked on different aspects of climate justice including the 'just transition' (Newell and Mulvaney 2013), global environmental justice (Sikor and Newell 2014), and issues of energy justice.

Shilpi Srivastava is a Research Fellow at IDS. Her research focuses on examining cross-sectoral relationships and impacts around water, health and climate; political economy of climate change adaptation and resource justice; and decision-making under conditions of climatic uncertainty. She has published on water resource management, climate change policy and adaptation in journals such as Regional Environmental Change, Nomadic Peoples and Transition Studies Review. She is currently co-editing a book on uncertainty and climate change in India for SAGE (India).

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Executive Summary

This study was commissioned by the International Development Research Centre (IDRC) to help identify gaps and future entry points for Southern-led research on climate justice. The report is written at a time of growing acknowledgement of the climate crisis. From forest fires in Australia and California to record floods in Jakarta and the UK, it is clear that no area of the world is immune from the effects of climate change.

Many countries and cities have woken up to this fact and have declared climate emergencies. We have witnessed unprecedented social mobilisation around the issue, including the school strikes and the rise of direct action movements such as Extinction Rebellion. Mainstream discourses are increasingly framed around the recognition that climate change is fundamentally a question of justice, in terms of the responsibility for the problem and its mitigation; that vulnerabilities to the impacts of climate change are both a reflection of, and exacerbate, structural injustices; and that there will be residual impacts beyond the capacity to mitigate and adapt or what might be deemed 'tolerable' impacts.

Yet the United Nations Environment Programme **(UNEP) Emissions Gap report** for 2019, which was released during the writing of this report, outlined once again the yawning gap between actions that parties have committed to under their Nationally Determined Contributions (NDCs) and what the best available science suggests is necessary to keep the world average temperature rise below 2 degrees Celsius (°C), let alone the more ambitious 1.5°C target. The 25th Conference of the Parties (COP 25) in Madrid failed to make any progress in areas such as loss and damage, an issue of vital concern particularly to least developed countries. Moreover, key decisions about the rules governing future carbon markets have now been postponed until the 2021 COP in Glasgow. Resources and commitment to climate action also now need to compete with global responses to the Covid-19 pandemic. As efforts ramp up to deliver a 'just recovery', it is vital that climate considerations also guide decision-making and priority-setting.

We face a series of conundrums. Unless we get the world on a path to rapid and deep decarbonisation, climate injustices will multiply exponentially. At the same time, unless responses to the crisis are underpinned by a sense of fairness and equity, they will encounter resistance and rejection, further delaying action. Likewise, getting near term action implies going with the grain and persuading those who currently wield power to accelerate just transitions. Yet those same actors are often beneficiaries of the status quo and if more transformative understandings and practices of climate justice are to take hold, as we argue they must, we need to challenge and disrupt existing configurations of power.

What do we mean by 'justice' in climate justice?

Climate justice is understood in a multitude of ways, and reflects the fact that the causes and effects of climate change, as well as efforts to tackle it, raise ethical, equity and rights issues. The language of climate justice, as we show in this study, is increasingly omnipresent in the discourse of academia, civil society, social movements, some governments, cities, and even some

businesses. But the mechanisms for delivering it are weak and under-developed. We also show that definitions of what is covered by climate justice, at what scales, how it can be measured, and which are the best means to deliver it are all heavily contested. In many ways, as Saleemul Huq observed, it is easier to identify injustices than to define and act upon more abstract notions of what justice looks like.[1]

These differences in the understanding of climate justice matter because they have serious implications for those countries, regions and communities on the front line of the impacts of climate change and are increasingly apparent in efforts to accelerate decarbonisation. Given the closing window for effective responses to avoid the worst effects of climate change, we have to work with the institutions, policy processes, and economies we currently have to secure the best outcomes possible, while simultaneously advocating for and building alternatives that address deeper structural concerns.

Towards this end, we suggest that transformative climate justice is a useful concept to focus attention on the need to disrupt power relations and shift decision-making processes which lock in and reproduce climate injustices. We propose it as a way of, first, moving beyond the 'silos' of mitigation and adaptation, and, second, of bridging the gap between justice concerns in climate change funding and actual interventions on the ground. We argue that addressing structural root causes (historical injustices, land rights, political participation, and governance) are key to achieving climate justice goals in the long term.

Procedural and distributional climate justice

The report reviews existing literatures on climate justice and identifies gaps in our understanding. It is broadly divided into procedural and distributional dimensions while also covering issues of recognition and intergenerational justice.

Regarding procedural climate justice, though some important work has been done, there is scope for significant interventions aimed at researching and improving the participation of least developed countries in the climate negotiations around issues of climate justice, relating to ongoing discussions on loss and damage, as well as climate finance through the Green Climate Fund and Adaptation Fund, for example. There is also scope for further Southern-led research on how to concretely boost the capacity of local organisations and civil society groups to engage directly in the governance of adaptation finance in different settings. This may have to be pre-figured by training leaders in the intricacies of climate finance to raise meaningful levels of engagement. More transformative approaches could explore how funding to support adaptation and resilience can address the structural drivers of vulnerability.

Bringing climate justice issues into discussions about bilateral, as well as regional and international trade and investment agreements is a key task that has been neglected to date. An important area of work for IDRC might be how to integrate or mainstream issues of climate change and human rights into economic governance around trade and investment law. Further Southern-led research and advocacy on how best to strengthen the normative and institutional

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1   Comment during a public webinar 14th May 2020 organised by IDRC to discuss the findings of this report.

frameworks to hold corporations to account for the climate-related impacts of their operations would also be welcome. This could involve helping to define near-term entry points for legal reforms and innovations, as well as bolder longer-term proposals. More generally, work on the 'vernacularisation' of laws or hybrid frameworks could provide a useful entry point to study how local communities and organisations can be empowered to mobilise for climate justice.

On the distributional side of climate justice, there is a growing body of work on 'just transitions' to a zero-carbon economy: transitions which, as well as pursuing decarbonisation, also attend to issues of social justice. But there is a need for further Southern-led research on just transitions. This includes further research on strategies for defending the legal rights of existing users of the land from land grabs, and proper compensation for those whose land is acquired (for biofuel projects for example), to prevent some of these injustices from occurring. Relatedly, there is a need to ensure that renewed interest in carbon trading under the Paris Agreement does not reproduce social and environmental injustices. Research could also look at justice issues along supply chains in key sectors such as energy and transport, but hone in on how new investments interact with place-specific social inequalities with a view to thinking about safeguards and governance innovations that might be required to ensure poorer groups do not pay the price for decarbonisation efforts. More broadly, there is also a need to bring a wider range of interests and voices into energy policymaking, and the need to deal with the procedural and distributive justice dimensions of decision-making about transitions. In terms of future research agendas, it suggests the value of more Southern-focused work on reforms to regional and global energy governance to strengthen policy architectures around energy access and poverty in moves to decarbonise energy systems.

Thematic entry points for research to support transformative climate justice

It is clear from this study, and the reality of contemporary climate politics, that justice questions will play an increasingly important role in activism and policy as well as academic debates and, importantly, for the realisation of the Sustainable Development Goals (SDGs). As demands to accelerate and deepen mitigation actions intensify, alongside the creation of new opportunities, there will be opposition, dislocation, and disruption (particularly among the poorest and most vulnerable). Efforts to ensure that transitions are just in the provision of food, transport and energy, for example, as well as deeper transformations, are critical.[2]

Our review suggests significant scope for IDRC and other funding organisations to improve our understanding of the tools and processes by which we can anticipate, better manage and avoid situations in which the poorest in society bear the brunt of the urgently required transition to low-carbon and resilient economies.

Section 5 of the report identifies the following potential directions for Southern-led research and IDRC programming organised under three broad headings:

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[2]   Many scholars draw a distinction between narrower sociotechnical transitions which imply shifts from one system of energy or food production, for example, to another, and transformations which also imply shifts in the distribution of power and control over development pathways (Newell 2018; Stirling 2014).

Governance for climate justice

1. **Climate justice law centres and clinics:** Funding and building a network of researchers and practitioners working at the frontier of legal innovations for accountability, justice and redress in relation to climate change could make a real difference. This could deal with site- and context-specific legal struggles as well as issues within the UNFCCC around loss and damage.

2. **Strengthening and deepening democracy for climate change:** Some comparative work looking at opportunities for deepening and strengthening democracy for climate justice in different contexts would fill an important gap. Tools and procedures for access to climate justice will take different forms in different parts of the world depending on the nature of the democracy, the strength of civil society and the existence or not of a free media for freedom of expression. It will be important to analyse and research these issues across projects and sectors to gain an understanding of national-level challenges and how to address them.

3. **Climate justice beyond the state:** Thinking more clearly, systematically and strategically about who bears rights and responsibilities and for what in the climate arena in ways which go beyond the state, is clearly vital. There is some important convening work to do on facilitating 'first mover' coalitions of business actors that have done some 'climate justice' profiling of their current and future operations as part of a reappraisal of their business model in a warming world. Building such 'coalitions of the willing' and researching and exchanging case studies of best practice will have to occur alongside investigations into what other models might be required to tackle business laggards and those not willing to move first.

4. **Climate, conflict and migration:** There is already a large body of work on climate change and conflict, but there is a real need for more Southern-driven and context-specific accounts of potential scenarios and their contexts. An innovative research programme in this area, going beyond the limiting debates about how far climate change is a 'primary driver' or 'threat multiplier', could look at how responses to conflict situations through cooperation, sharing of resources and new governance mechanisms could be designed in such a way to address climate injustices and embed more just outcomes.

Inclusive climate justice

5. **New alliances for climate justice:** New international alliances among disparate actors and social movements will be required to deliver more transformative versions of climate justice. More research and support are required to facilitate the development of such alliances that share common climate challenges focused on case studies of effective climate justice campaigns aimed at identifying key enabling conditions and assessing the extent to which they might be replicable or generalisable to other contexts.

6. **Social movements and climate justice:** There are strong traditions of indigenous activism in Latin America, tribal activism in India and parts of Africa, highlighting the important role of environmental defenders the world over. But under what conditions might climate justice concerns be the basis for broader social mobilisations that cut across regional, class, race and gender divides? Are there spaces and places in which this is already happening? If so, how

can this activism be supported through engagement activities, research and toolkits for advocacy, legal activism and the like?

7. **Vernacular climate justice:** A fertile area of work would be comparative studies on the meanings and practices of climate justice. This will be useful to understanding which framings resonate in which contexts. Advancing understandings and practices of climate justice requires greater attention to where the leverage and traction points are across societies and different social groups.

8. **A gendered analysis of climate change impacts and responses:** More research is required to examine the intersectional effects of climate change adaptation as well as mitigation. For example, a nuanced gendered analysis that cuts across the axes of social differentiation is required to assess low-carbon pathways at the global and local levels to understand the costs of these transitions, including more research on intra-household carbon footprints, energy poverty and burdens or value chain analysis of global supply chains.

9. **Building inclusive climate knowledge:** There is scope here for comparative work building on areas such as traditions of citizen climate science, indigenous environmentalism and alternative cosmologies. Engagement with diverse systems of knowledge and value can improve modelling and open up ways to communicate more effectively with communities often on the front line of climate injustices.

Deepening climate justice

10. **Just transition pathways:** In the context of growing recognition of the importance of ensuring that low-carbon transitions are attentive to justice issues, there is a pressing need to innovate participatory scenario-building exercises about climate futures. Work with the modelling community on different energy, transport, food and other futures should encompass the development of tools that are more participatory, and should include the deliberative development of scenarios for change. These should be driven by citizens' own values, concerns and priorities. This would help to develop tools and procedures for integrating climate justice concerns into planning for different climate futures.

11. **Climate justice through supply-side climate policy:** There is growing activist interest in this area, but as yet few research projects analysing the possibilities and challenges of developing supply-side international law to develop a global legal framework for equitably agreeing how to leave remaining reserves of fossil fuels in the ground. Supply-side here refers to measures to limit the production and extraction of fossil fuels rather than seeking merely to regulate the emissions that result from them.

12. **Just responses to climate-related disasters:** Given that climate-related disasters can be expected to become the 'new normal' whatever else happens on the mitigation side, mainstreaming justice concerns into climate disaster relief efforts will be vital. Research on what has worked well and less well and what might be learned from related crises to help inform concrete strategies required in the face of climate change would be very welcome. This might include work that looks at whether it is necessary to develop new institutions and

frameworks for recognising the rights of climate refugees and the duties of those that ought to help them, or for assessing claims that climate change is a humanitarian crime.

13. **Climate justice for nature**: We need to consider not just inter-human and intergenerational, but also inter-species perspectives, when building the foundations for climate justice. Research from legal scholars, philosophers and practitioners on the principles, procedures and mechanisms that could support innovations in this area would help to clarify thinking about the potential and the limitations of approaches which give legal standing to rivers, forests and other ecosystems. This could potentially help to protect the livelihoods of forest dwellers and indigenous peoples that inhabit these areas, as well as potentially put them beyond the realm of commercial exploitation, so making a contribution to climate justice through preventive mitigation.

How to build research processes for climate justice?

The review suggests that IDRC is well placed to support advancements in theory and methods, and to enhance the impacts of climate justice research. We have noted throughout the study a growing number of *place-based studies* on climate justice and injustice. These have provided rich and important insights on how people and places unevenly experience the effects of climate change, which intersects with different social axes (race, caste, class and gender), and measures to address climate change. This will continue to be important. But to promote transformative climate justice, such studies need increasingly to be tied to the underlying drivers of injustice and to comparative work on how those injustices can most effectively be prevented and contested. In other words, how can we better understand the enabling conditions for effectively contesting structural climate injustice? Which combinations of strategies (state-based, legal, financial, activist) seem to succeed in addressing injustices and which ones are potentially transferable?

As more and more places and communities encounter the impacts of climate change, it will be critical to understand the justice implications of efforts to cope with and adapt to changes among different social groups, and the limits to adaptation. We are suggesting here the need for research which informs and disseminates in an accessible manner (e.g. via handbooks, videos, participatory videos, shared web platforms, toolkits or case studies), as well as guides on what works, when and for whom in addressing particular features of climate injustice. This could be when contesting a planning application, submitting evidence to inquiries and hearings, engaging in litigation or just having access to like-minded civil society organisations working in this space.

As noted above, climate justice cannot be delivered in isolation from the pursuit of other justice claims, perhaps especially so in the context of needing to address the SDGs. Understanding the processes by which states, corporations, cities and communities are seeking to align climate justice with the pursuit of these other goals in practice is critically important. How, by whom and for whom efforts are made to square climate justice with related issues such as gender justice, water and food justice, or conflict prevention, presents a wicked governance problem. Most policy and decision-making processes were not designed to deal with all these issues simultaneously. Research with and by communities on the front line of seeking to navigate this complex terrain in inclusive and just ways would be very valuable indeed. We suggested above, in particular, the

need to engage with novel and innovative participatory approaches to doing this. This has to go beyond the temptation to present attractive, but sometimes spurious, 'win-win' scenarios, to honestly analyse the gains, losses and trade-offs – even where positive outcomes were nevertheless achieved. As with other areas of the SDGs, there is a danger with climate that compliance will be demonstrated through tick-box exercises and that the potential for more transformative responses that address the needs of the poor is lost in favour of repackaging business as usual.

The failure to contain emissions growth means dramatic efforts are now required to be able to live with the accelerating effects of climate change, particularly for the poorest and most marginalised social groups. Adapting ecosystems, infrastructures, service provision and people to a warming world brings with it a cluster of justice issues – procedural as well as distributive. There is an important role for IDRC (and other funders) in showcasing how to tackle climate justice elements in ongoing and new forms of interventions that IDRC and other donors are involved in, including financing, creative institutional designs and facilitating alliances that manage to involve affected groups in the design and delivery of response measures, disaster risk reduction or resilience-building interventions that reduce or manage uneven exposure to the effects of climate change. There are a number of Southern-based networks that might help in this endeavour such as the Ibero-American Network of Climate Change Offices (RIOCC) and RIMD (Red Interamericana de Mitigación de Desastres)[3]: the Inter-American Network for Disaster Mitigation which IDRC has supported in the past.

This report contributes to an analysis of potential areas of action to support climate justice and avoid the risk of initiatives that do not support, or at worst, reinforce and exacerbate current injustices. We note that by default, climate mitigation and adaptation initiatives do not necessarily improve justice, and hence integration of justice requires careful consideration. We also note some emergent dangers in the growing financialisation of adaptation responses, such as through forecast-based financing, crop insurance, weather derivatives and other financial instruments being brought to bear on the livelihoods of some of the poorest. The effects of these and the safeguards that may be necessary to ensure 'no one is left behind' warrant further attention, with a particularly important role for researchers in the global South.

This is clearly an increasingly crowded policy, donor and academic field. Yet there is so much work left to do because of the scale of the challenge and the intimate relationship between climate change and all other aspects of human development. Our conclusion is that with strong global and local connections and partnerships, and experience of working in many of the key sectors and regions we have touched upon here, IDRC is well placed to be at the forefront of efforts to advance research, practice, advocacy, and policy around diverse Southern-led visions of climate justice.

We intentionally use the plural here: visions. There are competing 'Southern' visions depending on whether they are articulated and advanced by different state or business actors, civil society or community groups and academics. Many of them are in tension and conflict with one another

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[3]   www.rimd.org/index.php.

about the best way to mitigate and adapt to the effects of climate change. While Southern governments may articulate visions of climate justice in international arenas around 'climate debts' and historical responsibilities, for citizens of those states, access to climate justice is denied by their state when they live in polluted 'sacrifice zones' or are expected to bear the costs of transition pathways about which they had no say. Throughout the report, therefore, recognising these tensions, we try to identify entry points for engaging with a range of governmental, corporate, civil society and community actors in co-producing innovative and impactful research on climate justice. Priorities also differ by region and level of development that determine capacity to benefit from the opportunities of a low-carbon economy as well as vulnerability to the effects of climate change. We have, however, tried to highlight commonalities and cross-cutting themes that pertain to large parts of Africa, Asia and Latin America.

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Acronyms

AJWS	American Jewish World Service
CBD	Convention on Biological Diversity
CBDR-RC	Common but differentiated responsibilities and respective capabilities
CDM	Clean Development Mechanism
CJRF	Climate Justice Resilience Fund
COP	Conference of the Parties to the Climate Convention
CSA	Climate Smart Agriculture
CSR	Corporate Social Responsibility
EJ	Environmental Justice
EU ETS	European Union Emissions Trading Scheme
FPIC	Free, Prior and Informed Consent
GCF	Green Climate Fund
GDR	Greenhouse Development Rights
GEF	Global Environment Facility
GHG	Greenhouse gas
IACHR	Inter-American Commission on Human Rights
ICTSD	International Centre for Trade and Sustainable Development
IDRC	International Development Research Centre
ILO	International Labour Organization
IPCC	Intergovernmental Panel on Climate Change
IPRs	Intellectual Property Rights
LGBTQI	Lesbian, gay, bisexual, transgender and queer people
MASS	Machimar Adhikar Sangharsh Samiti
NAFTA	North American Free Trade Agreement
NDC	Nationally Determined Contribution
NGO	Non-governmental organisation
PV	Photovoltaic
REDD	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
SDG	Sustainable Development Goals
SR15	IPCC special report on the impacts of global warming of 1.5°C
TPP	Trans-Pacific Partnership
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNRISD	United Nations Research Institute for Social Development
WHO	World Health Organization
WIM	Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts
WMO	World Meteorological Organization
WRI	World Resources Institute
WTO	World Trade Organization

1. Introduction

Justice issues have underpinned climate change discussions since before the United Nations Framework Convention on Climate Change (UNFCCC) was established in 1992, but attention to climate justice has expanded significantly over recent years. Discourses of climate justice are now omnipresent: activists, community leaders, cities, governments and even some businesses increasingly adopt the phrase to frame a range of (often competing) demands for social and historical or intergenerational climate justice. This makes it pertinent to take stock of current understandings and analyses of the meanings and practices of climate justice as we enter a critical decade for responding to the problem in a timely and just fashion.

Unsurprisingly, there is now a vast academic literature on the topic. From being a relatively rare topic in book-length literature on climate change in the 1990s, it is now commonplace for climate justice to be given at least some attention in most books about climate change (see Annex A1). Against this background, the objective of this scoping review is to assess gaps and explore possible entry points for a programme of Southern-led research on climate justice. We frame this around the concept of transformative climate justice, reflecting the need to bridge gaps between climate justice processes (under the UNFCCC) while addressing unjust and inequitable structures that put some social groups at a disadvantage. We argue that there is significant scope and need to develop and realise Southern-led research on all aspects of climate justice: its procedural, distributive and intergenerational dimensions and across policy domains, from energy and food to water and conflict.

The report is structured as follows: in the next section (Section 2) we lay out the background and methodology for the study. Section 3 maps the understanding of climate justice, its antecedents, current situation and trends. Section 4 identifies gaps and thematic entry points, while Section 5 discusses research processes on climate justice. The final section (6) includes concluding remarks and reflections.

2. Study background and methodology

2.1 Background

The purpose of this study is to support the International Development Research Centre (IDRC) in identifying research gaps, entry points and approaches for potential new IDRC support for Southern-led research on climate justice in the global South. This builds on IDRC's existing track record on issues of governance, justice and climate change, and aims to contribute to IDRC programming directions for the 2020–30 period, related in particular to climate change, governance, fragility and conflict.

This report recognises that new and unpredictable global challenges are associated with climate change, such as the growing internal migration of vulnerable populations, increasing conflicts over natural resources, as well as increased risk of death, injury and loss of infrastructure due to extreme weather events. Climate change also highlights and exacerbates impacts on the human rights of poor and vulnerable people in the global South, both in terms of disproportionate climate risks to human rights (e.g. the right to life, health, food and water) and risks or concerns related to climate action (e.g. how large-scale clean energy projects can threaten people's rights related to land, security and livelihoods, or the politics of vulnerability analysis and priority-setting for adaptation policy and action).

More positively perhaps, these challenges are also accompanied by new policy openings at the global level, such as the government commitments (Nationally Determined Contributions, NDCs) to develop mitigation and adaptation plans under the UNFCCC, or provisions for integration of climate change concerns under the Global Compact for Migration (UN 2018). Those commitments, in turn, have translated into new forms of national-level policy action and to an upsurge in civil society and social movements around climate change. Climate justice elements figure prominently in the schools strikes and the Extinction Rebellion movements that have taken hold in the global North in particular. These new forms of action may also provide potential opportunities for engagement by poor and vulnerable populations through transnational civil society networks.

The study focuses on areas of greatest urgency or potential need, especially in terms of knowledge gaps: where best to focus efforts to generate evidence and feed into policy debates to ensure affected groups can achieve just outcomes means identifying gaps in research, but also to some extent capacity gaps. This is so because of the gulf that often exists between where knowledge lies and who generates it, and who has access to it and where it is most needed. We pay

particular attention, therefore, to examples of participatory research on climate justice where those involved in particular processes or conflicts are involved in the design, conduct and use of the research.

2.2 Methodology

Climate justice issues are addressed across a range of literatures and disciplines, and by a wide range of actors. Climate cuts across several other issues that determine collective and individual wellbeing, such as land, water, health and food. In order to provide a comprehensive review of existing literature, we have drawn on the methodological approach of Arksey and O'Malley (2005) and Levac, Colquohon and O'Brien (2010). We have undertaken the following stepwise process:

Step 1. Identifying and framing questions. Each of the three key research themes (conceptualising climate justice; thematic entry points for climate justice research; and building the research process) were broken down into constituent sub-themes. These were specified into clear terms to guide the literature search.

Step 2. Identifying relevant literature. We have undertaken an extensive literature search of online and print sources from the mid-1990s onwards, from when climate justice and related issues were gaining greater traction. This was done with the help of a research assistant who worked closely with the team throughout. For the review, we followed a three-fold process that started with the identification of key variables associated with procedural, distributive and intergenerational justice, and finished with the identification of relevant gaps in the scholarship. We identified and collectively agreed to a series of key words that were related to each dimension of justice (see Table 2.1).

Table 2.1: Concepts and keywords for literature review

Concept	Keywords
Procedural justice	Gender, participation, indigenous people, race, disability, children, knowledge, access to justice, access to law, information, institutions, exclusion, marginalisation, policy process, governance, corruption, inclusion
Distributive justice	Human rights, loss and damage, indigenous people, compensation, uneven distribution of goods and bads, equity, social access, gender, resource access, marginalisation, vulnerability, just transition
Intergenerational justice	Climate justice, equitable, fairness, climate debt, next generation

Source: Authors' own

Following this process, guided literature searches for both academic and practice-based papers were undertaken using search engines (Google and Google Scholar; ProQuest; Jstor; Scopus; Academia). Searches were undertaken in English, French, Spanish, Portuguese and Hindi. Literature was collected systematically and the reasons for inclusion/exclusion were recorded during the literature review. These criteria included: (i) relevance for the global South and materials produced by scholars, practitioners and activists from the global South to help rebalance the dominance, to date, of Northern scholarship on climate justice; (ii) relevance to the key themes of the Terms of Reference; (iii) accessibility and practicability; and (iv) rigour and quality of the research. We were particularly attentive to literatures that speak to critical aspects of intersectionality (race, class, gender, sexuality, etc.). For this, we conducted advanced searches using a combination of keywords and terms. For evidence-based studies, we used the UK Department for International Development (DFID) guide on study quality (2014).

We employed 'snowballing' from bibliographies of key texts (academic, grey, policy (e.g. IPCC)) and existing reviews of relevant related literatures. We also broadened our searches to ensure we captured a range of relevant literatures and methodologies that address issues of rights, conflict, displacement and violence, and also focus on different resources (water, food, agriculture, forestry). We did this by searching well beyond those journals that explicitly deal with climate change and environmental questions, to encompass a broader range of literature in development, political science, geography and anthropology.

The most relevant papers and works for each combination of keywords according to the number of citations were added to an excel spreadsheet by identifying the main argument and the geographical focus (see Annexes A2, A3 and A4). This process helped us to identify any potential gaps in terms of approaches, methodologies and geographical coverage.

In order to ensure that grey literature and practice-based studies were captured within our review, we also drew on our existing networks (academics, NGOs, donors and others) to help in identifying relevant literature and to assess the robustness of findings. We contacted key individuals by email as well as set up telephone calls or web conversations where necessary. This included specialists in the theory of climate justice, Southern researchers and activists, NGOs and other funders (see Acknowledgements).

Step 3: Charting and assessing relevant literature. Once the relevant literature was identified, we reviewed it. A data charting form was developed for description and analysis of the collected resources. The data charting form was maintained as an excel spreadsheet and was categorised according to the typologies of justice – distributive, procedural, intergenerational.

Step 4. Summarising and synthesising. As noted above, we recognise the need to locate climate justice within broader literature on environmental justice and access to justice issues more broadly. A qualitative content analysis was undertaken to analyse the literature. Following an iterative approach, we came up with a thematic framework to synthesise the data. For example, conceptual literature was synthesised focusing on aspects of distributive, procedural and intergenerational justice in addition to any other aspects that emerged from the literature review, the results of which are summarised below and in Annex A4. We used tables and typologies to allow for ease of use, accessibility and comparability. Separate sections for key work or illustrative case studies were created for each question/theme. In total, 98 papers were associated with procedural justice, 49 with distributive justice and eight with intergenerational justice. The search combination with the highest number of results was 'climate justice AND participation AND procedural' with 97 results and 'climate justice AND equity and distribution' with 178 results (see Annex A2 for detailed results).

In order to identify current gaps in evidence or theory-building on questions of climate justice, especially from the perspective of the global South, we trawled Southern-based and Southern-facing development journals, research networks, grey literature and policy reports looking at climate justice issues. We also built on the research findings emanating from our own projects in Asia and Africa on climate adaptation and transformation, providing a grounded theory perspective. This drew, for example, on Srivastava's extensive ethnographic work conducted with marginalised communities (women, pastoralists, subsistence farmers) in India, and on previous work of Newell in Argentina, Kenya, South Africa and India (Newell 2014; Phillips and Newell 2013; Newell and Phillips 2016; Srivastava and Mehta 2017; Mehta and Srivastava 2019; Srivastava 2015).

As part of the typology approach, we sought to identify gaps by highlighting those aspects of climate justice that are better researched and understood in relation to specific social groups in particular sectors and regions – and which are less well studied and where further work is needed. For instance, when conducting searches on procedural justice and indigenous people, we identified that most of the sources engage with consultation processes related to oil extraction in Canada. As a consequence, we opened the search to other consultation processes in Latin America and Asia.

Step 5: Interpreting the findings and identifying gaps. The final step involved presenting the implications of these findings for the key research questions on theory-building, thematic entry points and building the research process which we present in the subsequent sections.

Entry points were identified building on the review findings, especially those that are emerging from applied research (such as practice-based papers, evidence reports, and from ongoing projects) that highlight the drivers and challenges of

scale, policy feedback loops and co-production, and bottom-up processes of mobilisation and collective action. An important element in our review was to link up with activists and practitioners working on the intersection of climate change and justice in Asia, Africa and Latin America. For example, we drew on the experiences of our research collaborators in the global South who are leading such alliance-building processes (such as Saleemul Huq in Bangladesh, Mihir R. Bhatt in India, Patrick Bond in South Africa, and Chuks Okereke in Nigeria).

2.2.1 Scope and limitations

Our emphasis here has been on avoiding duplicating existing work as well as seeking to identify areas of innovation from the global South. We used our global networks, knowledge of existing literatures, and research collaborations and ability to search for items in multiple languages that dominate in Asia, Africa and Latin America (see above), to capture emergent and established traditions of work from the global South. In most cases, issues related to climate change and climate justice were couched in the language of social and/or environmental justice. This also corresponds with our own experience of doing research in the global South where local people and organisations prefer to use the language of rights, citizenship and social justice to address various forms of resource injustice (Srivastava *et al.* forthcoming).

Hence our review is not just limited to the geophysical impacts of climate change on marginalised groups, but also how solutions to climate change might either help to overcome or entrench these forms of marginalisation.

3. Analysing climate justice

This section traces the historical trajectories of the concept of climate justice and outlines existing and emerging conceptual debates about climate justice. The discussion is guided by bigger questions of justice for whom, for what, and how? It concludes by setting out a suggested framework for a transformative, Southern-led climate justice research agenda, which will be applied to a review of the current status of research, identifying key gaps and potential areas for future research (Section 4).

3.1 Origins and historical trajectories

Climate justice is typically understood either as justice in relation to the responsibility for climate change and its impacts, or as justice regarding the effects of responses to climate change (see Box 3.1). Some point to the 'triple injustices' of climate change: that the people least responsible for carbon emissions are also those most vulnerable to its impacts, while at the same time are often further disadvantaged by responses to climate change which may either reproduce or worsen current inequalities (UNRISD 2016; Krause 2018).

The term 'climate justice' was first coined in 1989 (Schlosberg and Collins 2014), but its precursors go back much further. Contemporary climate justice debates are building on a number of different (and sometimes conflicting) areas, including environmental justice, basic human rights, and fairness in the formation and implementation of international regimes. A commonly cited historical event is the United Nations Conference on the Human Environment in Stockholm (1972) since its Preamble defines the environment as essential to human wellbeing and the enjoyment of basic human rights.

Struggles over the definition and meaning of climate justice are intrinsic to climate policy debates, whether about mitigation, adaptation or the increasingly prominent policy area of loss and damage. There can be no discussion of rights, risks and responsibility for climate change that does not employ, consciously or not, ideas about justice. It is – as social scientists like to say – an essentially contested concept.

At the same time, it is often suggested that there is something about the problem-structure of climate change which makes the pursuit of justice particularly challenging. This includes the complexity of climate change, the difficulty of assigning blame and the different principles for sharing burdens of climate action, and our collective (though unevenly distributed) complicity in causing it (Markowitz and Shariff 2012). The abstract, complex and non-linear characteristics of the problem make it difficult to assess the future trajectories of

emissions, let alone connect them to actual impacts on the ground. Some of the worst impacts are temporally distant, especially for elite populations with decision-making power, and the asymmetric nature of these impacts affects mostly those with the least political power and resources to adapt or cope. Lines of responsibility are often blurred. At least historically speaking, climate change did not result from intention to do harm nor awareness of future consequences, hence lacking clear lines of moral transgression and ethical violation (Sovacool and Dworkin 2014).

A key divide underpinning climate justice discussions is that between, on the one hand, the fair allocation of burdens for emissions reductions and tackling climate impacts under the UNFCCC, and on the other, the broader justice discussions focusing on global North–South relationships rooted in issues of uneven responsibility, carbon debts and historical inequalities. This divide – with its associated tensions around what the problems are and what actions are required, and by whom – continues to this day, albeit with signs of convergence across them.

Box 3.1: What is climate justice?

Harris (2019: 3) notes that:

> Justice is about fairness, equity, impartiality and doing what is morally right. If something is unfair, inequitable, immoral or unreasonably partial (especially against those who are weak or towards those who are powerful or otherwise advantaged), it may be deemed to be unjust… we conceive of climate justice broadly in terms of the fairness, equity and rightness of responses to climate change.

There are justice dimensions to the three major climate policy areas: mitigation (emission reductions), adaptation (tackling the impacts), and loss and damage (dealing with the residual adverse impacts after adoption of mitigation and adaptation). For all these, it is clear that climate change is fundamentally a problem of justice: injustice is at the root of its causes, at the heart of its impacts and vital to whether and how effective policies will be devised and implemented to mitigate the associated risks. Stated most strongly, the author argues, 'It would not be far-fetched to say that climate change is rapidly becoming the greatest injustice ever witnessed, experienced and indeed perpetrated across all of human history' (Harris 2019: 13).

The first area – justice in the international regime on climate change – is embodied in the UN Framework Convention on Climate Change (UNFCCC) from 1992 through its adoption of a 'polluter pays' principle as well as the inclusion of the principle of 'common but differentiated responsibilities and respective capabilities' (CBDR-RC), in Articles 3(1) and 4(1). CBDR-RC is about the allocation of rights and responsibilities between governments. It recognises that all states have an obligation to avoid dangerous climate change, but also that the responsibility to address them is not equal across countries. Closely related to this is the recognition of the differential vulnerability and impacts of climate change across different countries and social groups, and the responsibility of the main emitters to provide funding to support those that are most vulnerable and have the fewest resources and least capacity to adapt. Thus, while justice concerns have arguably been core to the negotiations, the definition of what climate justice means, and the implementation of justice principles have in large part been left to the international policy processes surrounding climate action.

The second major domain of climate justice discussions emerged over the 1990s among civil society and advocacy groups, centred on concepts such as the climate debts of countries of the global North towards those in the global South (e.g. Smith 1996; Bruno, Karliner and Brotsky 1999). This view on climate justice only gained wider currency after a conference was organised, under the same title, by the New York group CorpWatch, and a Climate Justice Summit was held at the 6th Conference of the Parties to the Climate Convention (COP) in 2001. Since then, climate justice has spawned into multiple areas of research and a wide range of critical social and grass-roots movements for anchoring the right to life and livelihoods, and to address historical inequities across the global North and South.

The activist-oriented understanding of climate justice draws in particular from the long and rich history of practice and theory commonly associated with the concept of *environmental justice* (EJ). Most of the EJ movements and intellectual debates converge around three key ideas or themes: (1) anti-racist environmentalism(s) that characterised the 1980s and 1990s, linking demands of social justice and fairness *vis-à-vis* ecological problems and environmental harms such as pollution; (2) demands in the 1990s to recognise the 'ecological debt' owed by the North to the South, made by groups such as Acción Ecológica (based in Quito, Ecuador), leading up to the Kyoto Protocol negotiations (Simms 2005); and (3) the global justice movement which came to the fore in the 1999 World Trade Organization (WTO) protests in Seattle (Bond 2014). As Pulido puts it, EJ activists are 'as interested in changing the prevailing power relations as they are in reducing pollution or preserving biodiversity' (1996: 29–30).

Thus in this sense, some activist readings of climate justice have defined themselves against the more mainstream climate activism and UN processes,

which are frequently depicted as technocentric, bureaucratic and co-opted by corporate actors, pushing 'false' market solutions and overriding the rights of poor and marginalised groups. What emerges as a result is strong opposition to carbon trading and the commodification of nature, and a clear emphasis on rights (of peoples and nature). As Bond puts it, 'climate justice only arrived on the international scene as a coherent political approach in the wake of the failure of a more collaborative strategy between major environmental NGOs and the global managerial class' (2014: 137).

Arguably, the climate justice movement has played a prominent part in introducing a rights-based discourse into climate debates by drawing attention to the plight of those most affected by climate change and overlooked in the rush to construct a profitable carbon economy (Pettit 2004; Polack 2008; see also Box 3.2). Rights-based approaches bring into focus the way in which climate change has the potential to exacerbate existing social inequalities, both between and within countries, and draw much of their critique from broader challenges to neo-liberal globalisation. For the activists spearheading the movement, climate justice means 'holding fossil fuel corporations accountable for the central role they play in contributing to global warming […] challenging these companies at every level – from the production and marketing of fossil fuels themselves, to their underhanded political influence, to their PR prowess, to the unjust "solutions" they propose, to the fossil fuel based globalization they are driving' (CorpWatch 1999).

The climate justice movement has also worked through popular education and protest, and seeks to provide a space for the articulation of claims by those most affected by climate change, while contributing the least to the problem. Among the climate justice activists that had a strong presence at the UN climate summit in New Delhi (COP 8, 2002) were fishers, farmers and others whose livelihoods are being affected by climate change. The protests at that time raised profound accountability issues about whose voices were being heard and whose interests were being served by advocacy of the sort of marketised solutions being discussed in the formal negotiating arenas. On this basis, activist definitions of climate justice typically focus on structural 'root' causes, and an understanding of climate justice centred on struggles over resources such as land and water by marginalised peoples, as well as ensuring that the same groups have a voice in efforts to tackle climate change (AJWS 2020).

Similarly, academic discussions increasingly focus on structural concerns. This is perhaps particularly visible in recent gender and climate change literature, demonstrating how women in many cases are particularly disadvantaged due to existing cultural and social norms that tend to exacerbate the impacts of climate change on their lives and livelihoods. Women are also subjected to gender-specific threats such as sexual violence, harassment and threats to their children

when speaking out against environmental injustice (Hoare 2018). 'No climate justice without gender justice' was the rallying cry of feminists and activists as early as the Bali COP in 2007, and this has continued to gain traction since then in both development scholarship and activism. Scholarship on feminist theory and feminist political ecology, in particular, has come closer to articulating gender justice as an issue of structural, ideological and discursive power, and has warned us against the homogenising role of women. What women can and cannot do is contingent on their situated context, and their access to resources, which is in turn shaped by other axes of social differentiation such as caste, ethnicity and class (Terry 2009).

Box 3.2: Activist lineage of climate justice

- 1990s: Advocacy by Acción Ecológica in Ecuador around ideas of climate debt

- 2000: Event in the Hague on climate justice sponsored by CorpWatch

- Amsterdam conference organised by CorpWatch on climate justice

- 2002: Bali Principles of Climate Justice established by the International Climate Justice Network

- 2004: Durban Group for Climate Justice formed

- 2007: Founding of the Climate Justice Now! Network

- 2009: Climate Justice Alliance formed in advance of the Copenhagen COP

- 2009: Mobilisation for Climate Justice in the US

- 2010: Bolivian government supports the civil society Peoples' World Conference on Climate Change and the Rights of Mother Earth in Cochabamba. This was attended by 35,000 activists.

Sources: Bond (2012, 2014); Meikle, Wilson and Jafry (2016)

3.2 Typologies of climate justice

As can be seen from the above, climate justice has a diverse historical trajectory, which is reflected in current debates. Understanding the discussions they build on is important in order to frame the review that follows. The understandings that have been used in the literature on climate justice can be summarised under four types of justice:

3.2.1 Procedural climate justice

This aspect of climate justice is fundamentally about processes for making decisions about impacts of and responses to climate change that are fair, accountable, and transparent. Just procedures are important to regulate the distribution of goods and having the transparent and accountable decision-making processes in place. Core to this are issues of public participation, due process, and representative justice (McCauley *et al*. 2013; Sovacool *et al*. 2019a). This can include access to information, access to and meaningful participation in decision-making, lack of bias on the part of decision makers, and access to legal procedures for achieving redress (Sovacool and Dworkin 2014). Procedural justice generally focuses on identifying those who plan and make rules, laws, policies and decisions, and those who are included and can have a say in such processes. It also focuses on seeking to unveil the fairness of the processes through which decisions are made. Relevant to the theories of procedural justice are ideas such as deliberative democracy,[4] as well as dimensions such as accessibility, open participation, transparency, fair representation, impartiality, and objectivity. But what happens when the principle of inclusion allows for unjust outcomes, for poorer groups in particular?

In the context of the recent climate negotiations and the need to dramatically accelerate progress in reducing GHG emissions, there have been calls to limit the participation of states whose sole aim is seemingly to delay progress and therefore undermine the aims of the UNFCCC. This is where adherence to basic principles about equality of representation by all countries, which should generally be upheld, become distorted by the politics of which interests are being represented in practice and by vast resource inequalities which can subvert the goals of international cooperation. Demands to restrict participation have been made in relation to delegations from Saudi Arabia, for example, that largely represent the interests of the oil company Aramco. For example, at COP 25 more than 40 Gulf State delegates were current or former employees of fossil fuel companies (Collett-White 2019). Christiano (2018) suggests that for the process of international law to be legitimate, it must involve state consent, but that when the agreement concerns the pursuit of morally mandatory aims, such as alleviating global poverty or climate change, there must be further constraints on the reasons given for withholding consent (Moss 2018a).

Many of these procedural issues came to the fore at the most recent Madrid COP. Saleemul Huq, long-term adviser to the Least Developed Countries grouping, recently declared the negotiations are no longer fit for purpose for developing countries (Huq 2019). There have been longstanding critiques of process inequalities around the unequal size of delegations and sharp inequities

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4   Deliberative democracy refers to a form of democracy founded on citizen deliberation. Examples include citizens' juries, participatory budgeting and citizen assemblies (Dryzek 2000).

in access to scientific and legal expertise, which manifested themselves again in Madrid as some vulnerable and developing countries were excluded from backroom discussions on the issue of carbon market rules. But added to this is the politics of brinkmanship which entrenches these inequalities in representation. As Huq (2019) puts it:

> COP25 was the longest COP ever, having gone on for two extra days (and nights) beyond the originally planned twelve days. This tendency, now standard practice at COPs, to take the negotiations into overtime for a day or more is not only extremely inefficient, but is also deeply unfair to the most vulnerable developing countries whose delegates cannot stay on. Thus, the decisions made in the last hours of extra time are invariably detrimental to their interests and by the time they get home and see the final text they see their words have disappeared.

Ensuring that future negotiations give adequate and proper voice to those on the front line of climate change, without further privileging polluter elites, is a critical challenge to address if the entire COP architecture is not to risk further jeopardy (Newell and Taylor 2020). There is scope in this regard for further Southern-led research and policy work about changes to processes of decision-making at the COPs that might enhance Southern voice and representation, particularly of least developed countries and more marginalised groups. The **International Centre for Climate Change and Development** in Bangladesh is an example of an institution that would be well placed to lead such work.

3.2.2 Distributive climate justice

This aspect of justice deals with how costs and benefits of climate change are shared. Distributive justice is about how social goods and bads are allocated spatially and temporally across society (McCauley *et al.* 2013; Sovacool *et al*. 2019a). There are three main aspects of distribution: (1) identifying the goods and ills that are being distributed (e.g. food, clothing, water, power, wealth, or respect); (2) identifying the entities between which they are to be distributed (e.g. members of certain communities or stakeholders, certain generations, all of humankind); and (3) identifying the most appropriate mode of distribution as well as what this is based on (e.g. status, need, merit, rights, or ascriptive and social identities). Thus, questions of who gets to use what resources in a carbon-constrained world raise issues of climate justice in the form of responsibility (current versus historical) and entitlement (whose needs are most pressing and who decides who can emit how much). We show how these issues play out in practice throughout the study.

Thus, some of the key areas in which climate justice concerns come to the fore are around allocating burdens from the division of remaining emissions, the costs of mitigation and adaptation, including opportunities foregone and compensating those who have been wrongly harmed (Moss 2018a). We can see in the UN process and broader policy debates how 'fault-based principles' such as 'historical responsibility', 'polluter pays', 'harm', 'contribution' or simply 'fairness' principles require that the costs of action to mitigate or adapt to climate change should fall proportionately upon those who have played the greatest part in contributing to those harms. The 'beneficiary' principle, meanwhile, suggests that whomever benefits from an injustice that causes harm to another bears a duty to compensate those to the value of the benefit gained. Such claims can be increasingly observed in debates about loss and damage (Roberts and Pelling 2019; Roberts and Huq 2015) or carbon debt owed by richer countries to poorer ones (Moss 2018a).

Various climate change policy proposals have sought to address these issues, each placing a different weighting on issues of equity, efficiency and effectiveness, in terms of the ability and responsibility to most rapidly reduce greenhouse gas (GHG) emissions. Proposals have included 'contraction and convergence', an idea promoted by the Global Commons Institute and supported by many developing nations (Meyer 2000). This framework aims to 'contract' overall carbon emission safely below the threshold to avoid runaway climate feedbacks and to keep warming within tolerable limits. At the same time overall per capita carbon emissions would 'converge' by redistributing emissions entitlements. Others have proposed a Greenhouse Development Rights (GDR) framework. This was developed by a coalition of NGOs and research organisations to seek to reconcile the right to development with the need to drastically reduce emissions on the basis of a formula which incorporates population, gross domestic product (GDP) and cumulative emissions contributions (Kartha *et al*. 2009). Different justice principles are invoked in each. Proposals based on so-called 'grandfathering'[5], favoured by the US, take status quo emission profiles as the most legitimate starting point while seeking to maximise the utility of current generations, whereas contraction and convergence and GDR proposals place intra- and intergenerational equity principles more centrally and give different weight to the social and economic benefits accrued from historical emissions. There is disagreement, nevertheless, about the 'right to development' as a core demand that many BRICS countries[6] have emphasised in the climate negotiations. Critics and activist groups such as Greenpeace have seen this as a delaying tactic by elites in those countries by 'hiding behind the poor' whose per capita emissions are much slower and

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[5]   See e.g. Knight (2013).

[6]   Brazil, Russia, India and China.

therefore disguising the very high carbon footprint of elites in emerging economies (Ananthapadmanabhan, Srinivas and Gopal 2007).

What these proposals highlight, however, is the clear need to set limits on an equitable basis: whether it is regarding carbon emissions or production limits as with the supply-side policies discussed further below. Without these, the injustices associated with runaway climate change will continue to grow and worsen.

In recent years, justice issues have also come to the fore around the question of loss and damage in the international climate negotiations. The issue of loss and damage rose to international prominence through the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (Roberts and Huq 2015). Although mitigation and adaptation are meant to address issues of loss and damage that are likely to occur in future, in several cases the damage has already occurred or remains inevitable in the face of extreme weather events.

3.2.3 Recognition climate justice

A third area, recognition justice, is closely related to both procedural and distributional justice, but focuses in particular on the recognition of difference (Fraser 2000). Recognition designates an ideal reciprocal relation between subjects, in which each sees the other as its equal. Nancy Fraser (2000), the most prominent thinker on this issue, claims there has been a move from redistribution to recognition. In practice, it means identifying vulnerable people whose vulnerability may be worsened as a result of a process such as a low-carbon transition, for example. Recognition justice centres on unveiling those who may face intolerance and discrimination and supports the idea that they should be guaranteed a fair representation of their views without distortion or fears of reprisal (McCauley *et al*. 2013; Sovacool *et al*. 2019a). Recognition justice thus places emphasis on understanding differences alongside protecting equal rights for all, especially given uneven capacity to exercise and defend rights.

3.2.4 Intergenerational climate justice

Finally, one of the shared elements of justice claims that most often arises in environmental debates is the significance of *intergenerational* justice. This framing was explicit in the Brundtland report *Our Common Future* (WCED 1987) which conceived of sustainable development as being about the ability of current generations to meet their needs without compromising the ability of future generations to meet their own needs. In climate justice struggles, justice to future generations is a central mobilising claim: holding the current generation of

decision makers and polluters to account now for failing to act and imposing on future generations risks and dangers for which they are not responsible (Page 2006).

As well as protecting future generations from harm, the focus here is also on preserving natural capital for future generations. Again, there are multiple sides to this argument. On the one hand, there are those who argue for frontloading of climate action with a focus on urgency and ambition in the short term in order to hand a viable socioecological inheritance over to the next generation. Hayward (2013), for example, emphasises the importance of ideas of ecological space for dealing with these complex justice issues about obligations to other humans and other species.

Three basic principles of intergenerational equity posit that the legacy passed to the next generation should preserve (1) options; (2) quality; and (3) access for the next generation. 'Options' imply that future generations have the same range of options open to them as current generations. If tropical forests are clear cut, for example, future generations have fewer options for carbon sequestration, generating what Li (2017) describes as 'intergenerational displacement'. 'Quality' refers to the quality of the planet or the environment that is inherited. Future generations are entitled to a planet of comparable quality to the one inherited by previous generations. Current trends mean that future generations will inherit a planet in a poorer state of health than this generation inherited, and this means that future generations will bear the cost of repairing or restoring the planet to better health. 'Access' refers to the need for current generations to provide equitable access to the legacy or inheritance from past generations and to conserve this access for future generations. At present, current generations are accessing the benefits of fossil fuels inherited from past generations, but they are not using these in a way that will allow future generations to have similar access to these resources (Cameron 2014).

Thus, concerns over the future effects of contemporary actions may set environmental and climate justice apart from other justice claims. There has been a growing body of work also focusing on children and climate change, and their lack of voice in climate change negotiations and governance, with climate change representing a form of 'structural violence' (Sanson and Burke 2020). Expressions of intergenerational justice have surfaced in recent youth movements and climate strikes, including court cases brought by youth in the US (such as *Juliana* v. *the United States*), which we discuss further below. A useful line of Southern-led future research, noted below, might be whether emerging precedents for mechanisms for strengthening the (indirect) representation of future generations in places such as Israel and Hungary in the form of ombudspeople for future generations or calls for Future Generations Acts, could be replicated in parliaments in Asia, Africa and Latin America. Work with bodies

such as the **World Future Council** and the **Foundation for Democracy and Sustainable Development** that have been very active in this area suggests one way forward for IDRC.

We have said less about *justice to* the environment, where the environment itself is a recipient of justice and subject of justice claims (Dobson 1999); however, it is noteworthy that in many contexts, rights for nature are gaining ground (see Box 3.3) and can be invoked as a strategy for advancing climate justice by defending livelihoods from fossil fuel-intensive infrastructures. Initiatives are increasingly taking root from the US to India, and Ecuador to Bolivia, Turkey and Nepal, that give rights to nature. They aim to respect and protect the living environment and change how human society relates to its own supporting biosphere. For example, in February 2019, voters in Toledo, Ohio, approved a ballot to give Lake Erie, suffering heavy pollution, rights normally associated with a person. But the story which brought this shift to international attention was the tale of a river in New Zealand (see Box 3.3). In Section 6 we suggest ways in which research exploring these issues could be taken further.

Box 3.3: Rights for nature?

On 20 March 2017, the New Zealand government passed legislation recognising the Whanganui River as holding rights and responsibilities equivalent to a person. The river – or those acting for it – will now be able to sue for its own protection under the law. This was no overnight innovation; it was the culmination of two centuries of physical and legal struggle by the Whanganui people against colonial control of the river and its water, including eight years of intensive negotiation.

The final settlement is considered one of the best examples of using existing legal structures and concepts to protect nature. It also prescribes an unusually advanced form of collaborative governance that may inspire others and prove useful for rapid transition in the face of climate change. Accepting a non-human part of nature as a legal entity requires a conceptual shift away from placing humanity at the centre of everything. This understanding could generate other legal changes handing power to other parts of our natural world.

The Te Awa Tupua (Whanganui River Claims Settlement) Act 2017 recognises the river and all its tributaries as a single entity called Te Awa Tupua, which has rights and interests, and is the owner of its own riverbed. It also acknowledges the river as a living whole that stretches from the mountains to the sea, including both its physical and metaphysical elements.

> Rights to ownership of the riverbed are vested in the river itself, which can sue and be sued as necessary. Te Awa Tupua is represented by a guardian, Te Pou Tupua, who must act and speak for the benefit of the river's health and wellbeing. This guardian consists of two people: one from the Crown and one from the Whanganui people. They serve as legal custodians in the same way that legal guardians represent children today *in loco parentis*. The hybrid system draws on deeply divergent forms of order – Western legal and ancient Maori cultural – in an attempt to weave together a single solution.
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> Source: Rapid Transition Alliance (2019)

3.3 A framework for transformative climate justice

Previous sections have highlighted the broad range of definitions and understandings of climate justice, with strong yet distinct historical antecedents. Figure 3.1 is an attempt at summarising these differing understandings and the evolution of climate justice, looking at the historical trajectories to inform potential future trends. As argued earlier, there are plural ways of linking up different forms of 'injustices' to climate justice. Resource-centric struggles have been at the heart of place-based justice movements. These have been examined through the lens of environmental justice, gender justice or human rights (on the left side in the figure). After the UNFCCC was introduced in 1992 and as climate change has gained ascendancy in global discourses, climate-centric concepts (adaptation, resilience, loss and damage) also emerged (on the right side in the figure). Unlike resource-specific forms of injustice, these concepts tend to cut across various sectors in understanding the drivers of vulnerability. A growing body of literature shows that there are multiple overlaps between the place-based and resource-centric concepts and vulnerability, adaptation and resilience. We therefore argue that the concept of climate justice has the potential to bring them together.

To move forward, it seems clear that there is a need to bridge the gap between, on the one hand, the efforts to work out fair and just climate change response actions which have taken place under the UNFCCC (and continues under the Paris Agreement); and on the other, the engagement with unjust and inequitable structures that either drive vulnerability to climate change or put some social groups (in particular those at the margins) at a disadvantage in carrying the burden of climate responses. These tensions exist at the international level between nations and come to the fore particularly within countries.

To address this, we suggest a framework focused on transformative climate justice. We understand transformative climate justice as including, but going beyond, the immediate and proximate challenges of distribution of costs and

benefits from climate interventions. This echoes Tahseen Jafry's definition of climate justice, which highlights 'humanity's responsibility for the impacts of greenhouse gas emissions on the poorest and most vulnerable people in society by critically addressing inequality and promoting transformative approaches to address the root causes of climate change' (Centre for Climate Justice 2020). We see the reference to 'root causes' as structures that exacerbate vulnerabilities to the impacts of climate shocks and stressors, as well as those that may result in some social groups carrying an unfair burden of climate policy or hinder them from benefiting from climate responses. We argue that a framing of transformative climate justice is a potentially useful way of reducing the tensions described above in a way that tackles both current and practical justice needs for different social groups as well as more strategic, structural causes of injustice, with attention to understanding as well as engaging with the political economy of climate change policy.

Figure 3.1: Conceptualising climate justice
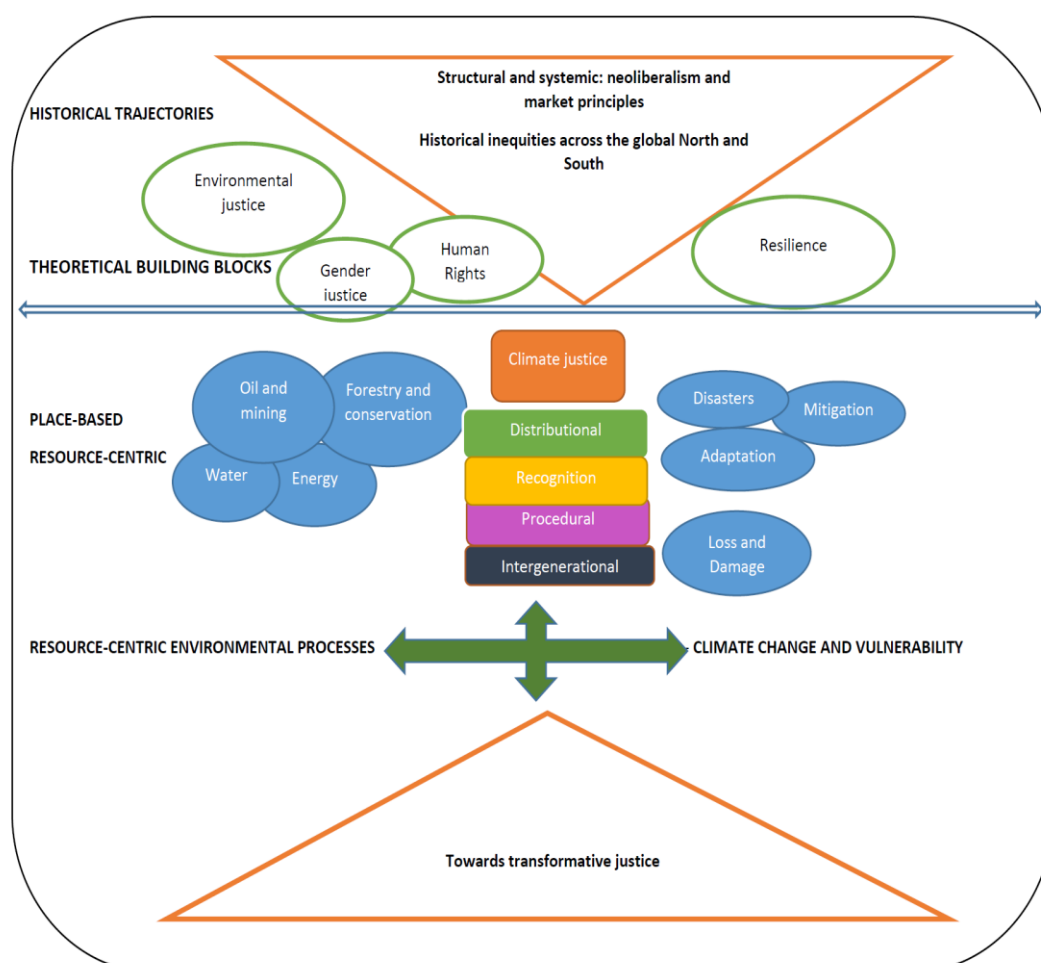
Source: Authors' own

Seen in this way, the challenge of tackling climate change in a just way becomes one closely connected to the need for transformation to low-carbon, climate-resilient societies, going beyond incremental changes. In turn, this necessitates identifying the institutions and structures that cause climate change as well as ensuring that responses – whether for mitigation or adaptation – do not reproduce, reinforce or exacerbate inequalities or injustice (Meikle, Wilson and Jafry 2016; Krause 2018).

Following the above discussion of what constitutes climate justice, we identify the main components and characteristics that would form part of a transformative climate justice research agenda. The elements were selected from key issues discussed in the literature. While organised under the main headings of procedural and distributive justice, it also incorporates recognition justice and intergenerational justice concerns.

3.3.1 Procedural justice (inputs and drivers, processes that affect outcomes)

– *Participation in international policy processes*: A core concern, in particular from the global South, has been the ability to participate equally in international negotiation processes. Major challenges remain in this area, as noted above.

– *Participation of different social groups at national levels*: To date, relatively little focus has been given to climate justice within countries. Beyond the global level, national and sub-national level, decision-making processes have proven vulnerable to capture and abuse by stronger political and economic actors.

– *Ability to make claims for resource access*: A necessary focus of climate justice processes is the proactive agency of marginalised groups in asserting and defending their rights, and making their voices heard. This concerns climate-related interventions, but perhaps equally important, policies and decisions that underpin adaptive capacity, such as land and water rights.

– *Recognition and integration of plural knowledges*: This is a key justice concern. Over recent years there has been a growing attention to local knowledge and its importance in understanding challenges as well as devising solutions. However, as yet there is limited progress on actual integration of knowledge other than scientific or formal knowledges in decision-making processes.

– *Legal empowerment and use of rights*: This concerns the legal recognition of rights of vulnerable groups and their ability to realise those rights. These will be key to any climate justice strategy. For example, integrating women in climate-related interventions is necessary, but not sufficient in strategies to

improve climate justice. If the underlying conditions mean that women are disadvantaged, such efforts could reinforce or worsen their conditions by adding rather than reducing their burden. This underscores the need for more transformative approaches to climate justice.

– *Accountability in government and non-government/private sector climate action*: This concerns to what extent processes that are meant to serve poor and marginalised populations are transparent in their goals as well as processes, and relates to emissions of GHGs as well as their effects on vulnerability to climate-related risks.

3.3.2 Distributive justice (outcome focus, sharing of costs and benefits)

– *Just transitions*: A key justice concern is the extent to which transitions to low-carbon economies are inclusive, recognising the different burdens, costs and the potentials for benefits among different social groups.

– *Just energy access*: This is an important, yet contested area, relating to how benefits and costs on energy services are distributed.

– *Outcomes from mitigation interventions*: While this is linked to issues of just transitions (above), there are added concerns here around how mitigation interventions – typically seen as necessary and a global public good – may have unintended negative (or positive) consequences in terms of human rights, land use (including the potential for 'land grabs'), as well as other implications for livelihoods that may affect vulnerability to climate related shocks and stressors.

– *Just distribution of benefits from adaptation and resilience programmes*: Unlike mitigation projects, adaptation and resilience benefits are primarily local in nature, yet may affect people differently. Decisions over who is prioritised in adaptation finance have strong climate justice dimensions, and there is significant evidence to suggest that not everyone will benefit equally from adaptation interventions.

– *Justice and conflicts over resource use*: There are well known linkages between exploration, extraction and distribution of energy, but also concerns that climate action may reinforce conflicts or introduce new forms of injustices.

– *Justice in efforts to achieve co-benefits or 'triple wins', such as climate-smart agriculture or REDD+*: These are goals and interventions that are promoted for their potential to generate triple wins in terms of mitigation, adaptation and development. Yet while this may be the case at higher scales, at a project or local scale there may be significant differences in who benefits

and who may lose (e.g. access to forest resources) and where there may be significant trade-offs (e.g. between mitigation and food security).

In the next section, we examine these components with regard to literature on climate justice, identifying key strengths as well as gaps in the literature.

4. Examining key areas for Southern-led climate justice research

In this section, we review the elements developed above around transformative climate justice in view of current literature, with a particular focus on the global South. The purpose is to identify key gaps and from there to explore or establish some key entry points for thematic research on climate justice. Suggested areas or questions for further research are highlighted in *italics*.

4.1 Procedural climate justice

4.1.1 Procedural inequities around climate justice at the international level

There are a series of generic procedural barriers to effective participation that reduce the likelihood that developing countries can increase the responsiveness of the climate change negotiations to their core concerns. Inequities in capacity and participation mean most governments from developing countries are not able even to be continuously present throughout the entire negotiation process, let alone adequately represent their citizens' interests in arenas where demands for legal and scientific expertise are high.

At the global level, issues of access, representation and transparency in the climate negotiations particularly came to the fore in the Copenhagen COP (2009). These issues continue to enjoy a high profile in post-Copenhagen debates about the tenability of mega processes and how to improve the voice of developing countries in particular (Newell and Taylor 2020; Huq 2019). There are systemic[7] procedural issues around size of delegations that attend simultaneous meetings, required legal and scientific expertise as well as vast power inequities in terms of ability to shape outcomes (Richards 2001). Disparities in effective representation between industrialised and developing countries do not only affect state parties, however; they are also evident among observer organisations. As one assessment put it:

> Mending the current disjuncture between those involved in the policy formation, negotiating and decision making process, and the citizens

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[7] There are, of course, notable exceptions to the rather low profile of non-Annex I ministers. The South African minister, for example, was highly active at COP 6 (part II) and, especially, COP 7, while the Tanzanian minister played an important role in discussions on the LDC fund at COP 9. The profile of the Nigerian minister at COP 6 (part I), where he held the post of G-77 Chair, was also high.

who are most vulnerable to climate change is thus to a significant extent a matter of closing the accountability gap in global climate governance. Accountability on its own will not be sufficient to adequately address the climate change challenge. It is however a fundamental and necessary condition for building a socially and environmentally effective global climate governance system that delivers for people.
(One World Trust 2009)

There is now a substantial literature on the governance of climate finance and its implications for developing countries and broader climate justice issues (Bracking 2014). Procedural concerns pertain to the funds set up to manage climate finance, including for energy sector mitigation: who pays, how much and which institution gets to set priorities and distribute funds (Nakhooda 2010; Newell 2011). Many developing countries have also felt very little if any ownership over the Global Environment Facility (GEF), for example, which they see as dominated by donor concerns (Young 2002; Ballesteros *et al*. 2009), and inattentive to the UNFCCC COP guidance. This dissatisfaction led, in a first instance, to the adoption of a one-country-one-vote rule and majority representation for developing countries on the governing body. This was a fundamental departure from the previous arrangements for climate change funds, where donors had an implicit veto (Müller and Winkler 2008). It is the Climate Investment Funds of the World Bank, however, which are attracting the most attention. Nakhooda (2008) found, for example, that there was limited evidence of engagement with stakeholders outside government in the design of their Clean Technology Investment plans, missing an opportunity for international public finance to introduce greater government accountability to citizens.

There is still clearly scope for significant interventions aimed at researching and improving the participation of least developed countries in the climate negotiations around issues of climate justice, perhaps in particular relating to ongoing discussions on loss and damage, as well as climate finance through the Green Climate Fund and Adaptation Fund, for example. Groups such as **Oxford Climate Policy** have shown their ability in the past to advance dialogue around these issues among delegates from across the world in a safe setting away from the negotiations, and might be engaged to convene similar dialogues in the future.

Claims of environmental (in)justices are increasingly also deployed within transnational arenas dealing with the issues of trans-border trade and investment, for example, but with consequences for local environmental struggles and political ecologies. Practices of production, trade and regulation at one site increasingly connect with seemingly distant sites elsewhere through extended supply chains, technology diffusion and the internationalisation of

production. In so doing, they transform the dynamics of inequality: reshaping or entrenching existing forms of inequality, and modifying the spaces available for the pursuit of justice (Newell 2007; 2012). Though the significance of such connections is hardly novel, the point of departure here is the confluence of globalising discourses of justice and corresponding institutional arrangements to which these claims are directed, and which seek to address them (Sikor and Newell 2014), bringing new challenges around institutional engagement and reform.

Bringing climate justice issues into discussions about bilateral, as well as regional and international trade and investment agreements is a key task. While there is a large body of work on trade and climate change in general (Leal-Arcas 2019), there is far less which addresses these issues through the lens of climate justice. For example, bilateral investment treaties related to agricultural investments (e.g. palm oil or jatropha) that particularly affect countries of the South would be ripe for such an analysis. As interest grows in the use of other economic levers to accelerate decarbonisation – including trade and investment treaties (border tax adjustments and the like), work with lawyers and researchers from the South on impacts and implications for developing countries could be very important. Partnerships with Southern-based trade policy research centres such as **RIS** or **CUTS** in India or **FLACSO Argentina** might be explored to develop work in this area.

We need to be alert to a legacy of companies using trade deals to undermine domestic environmental regulation as happened with NAFTA (Newell 2007). There is also scope for further legal and policy research on how to avoid scenarios in which trade rules are used to undermine national and international climate change commitments. Alternative proposals include a 'climate waiver' (Bacchus 2018) as part of interventions aimed at making the international trade system work for climate change (Das *et al.* 2018). For example, more critical accounts suggest that the proposed Trans-Pacific Partnership (TPP), covering nearly 40 per cent of the global economy, would benefit high GHG-emitting industries like energy and agriculture, but restrict national and local policies that respond to climate change. A report from the **Institute for Agriculture and Trade Policy** (IATP) found that the TPP expands the reach of past trade deals that have struck down renewable energy programmes supporting green jobs, provided agribusiness with more opportunities to challenge regulations that protect farmers and consumers, and limited the ability of countries to regulate dirty energy production like coal mining, fracking, and off-shore drilling (IATP 2016; Porterfield and Gallagher 2015).

An important area of work for IDRC might be how to integrate or mainstream issues of climate change and human rights into economic governance around trade and investment law.

This recognises that action on climate change needs to be advanced not just through international environmental law, but through trade and investment law and through those regimes that regulate key private actors, to attempt to mainstream climate into business-friendly treaties. Rather than settling all these issues through public international environmental law, the climate obligations of firms could be written into bilateral trade and investment agreements, for example. Under such a scenario, a right to market access would be conditional on concrete obligations regarding responsible investment with respect to climate change, such as the adoption of Best Available Technology, subjecting investments to screening for their possible climate impacts. This would be an indirect approach to advancing the human rights obligations of firms on climate change through climate conditionalities, but it would be one way of legally securing action from companies through arenas and instruments which they value and in which they actively participate.

The role for climate justice claim-making in institutions, bodies and treaty processes dealing with trade and investment is another fruitful avenue for further research. What spaces are there for using existing tools (rights to information and consultation, citizen panels, participatory impact assessments etc.) in institutions of economic governance (regional and global) to pursue climate justice claims by, or on behalf of, affected groups in the global South? This could build on earlier work and collaborations around the role of the environmental, labour and women's movement in mobilising around spaces of participation in trade policy in Latin America, for example (Newell and Tussie 2006).

Likewise, *research and policy work on making the Technology Mechanism work for poorer countries and groups* would be welcome. Since the closure of the International Centre for Trade and Sustainable Development (ICTSD) in Geneva which used to play a vital role in providing guidance to developing countries about how to navigate intellectual property rights (IPR) issues and trade regimes, and improve access to technology on terms beneficial to the poor, a void exists which IDRC might be well placed to help fill, alongside others, by funding research in these critical areas. In Africa collaborations with **ACTS** or **ATPS** might provide a starting point.

4.1.2 National-level marginalisation and exclusion from policy processes

In light of reports such as the UNEP Emissions Gap report and the IPCC Special Report on the impacts of global warming of 1.5 degrees C (IPCC SR15) countries are under increasing pressure to raise the level of ambition in their NDCs. Besides opening up new opportunities, this could intensify some of the procedural and distributional issues highlighted here (Newell and Phylipsen 2018). There is certainly scope to work with the National Adaptation Plan (NAP)

Global Network and the NDC Partnership working in this space to strengthen NDCs in ways that are attentive to justice issues (see Box 4.1).

Box 4.1: Strengthening NDCs in line with SR15

1. **Performing a gap analysis:** The global picture from SR15 could be used as a baseline to conduct a gap analysis at the national level. Translating from the generic baseline to the national context, as well as back-casting from long-term requirements to the current NDC time horizon, would help to identify policy gaps and the steps needed to bridge them in the short and long terms. This would include identifying capacity gaps and legal changes that may be required to raise ambition.

2. **Prioritising actions:** To fill the identified gaps, each ministry will need to consult internally and with relevant stakeholders within and beyond government to produce a revised list of actions and contributions around accelerated and deeper sectoral and economy-wide interventions. Priorities should include systemic actions that support transitions spanning mitigation and adaptation, and attainment of the UN SDGs. This may require comparing very different options, including policies across several sectors with varying costs and benefits for diverse stakeholders along distinct timelines. A common base for such a comparison will be needed to assess the (net) costs and benefits of the different options and the associated resource needs, as well as to effectively communicate with stakeholders and decide on the prioritisation and sequencing of actions, given resource constraints.

3. **Addressing the social dimensions of accelerated action:** Building ownership, inclusion and civic participation is vital to make sure that promising new pathways in line with SR15 are not subsequently abandoned or subject to rollback. Targeted 'big win' interventions that generate a series of co-benefits are useful in this regard. For example, improving air quality brings health and local environmental benefits, as well as reductions in GHGs, helping to address a number of SDGs.

4. **Assessing resource needs:** It is important to clearly identify the level and type of financing (public and private) that will be required to enable enhanced ambition, as well as short-term strategies for securing those funds. This might include revisions to climate investment plans which outline budgetary support to climate initiatives across government. Given the need for enhanced levels of private finance, dialogue with private actors will be critical, and additional requests for multilateral funding may be required, for example, from the Green Climate Fund (GCF), the Adaptation Fund (AF) or the Global Environment Facility (GEF).

5. **Improving governance frameworks:** There is a clear need for greater policy integration and alignment with climate change policy objectives. Such mainstreaming involves the integration of climate change considerations in planning, budgeting, implementation and monitoring processes for all sectors of the economy. The majority of implementation activities are also likely to be undertaken at the sectoral and subnational level, and many actions that can help to significantly scale up ambition will need to be delivered by non-state actors.

Source: Newell and Phylipsen (2018)

Marginalisation and exclusion from policymaking processes create and sustain existing inequalities within a country. For example, Newell *et al.* (2019) found that in discussions around climate-smart agriculture in sub-Saharan Africa, affected groups have not been an effective voice in policy discussions. They found patterns of exclusion more pervasive in those groups that are most vulnerable to climate change, as well as the policies set up to address it. Many of the policies affect the smallholder farmers, fisher communities as well as pastoral and agro-pastoral communities, but they themselves are not part of the decisions. Controversial evictions of pastoralists in Usangu plains in Tanzania during the 2000s are a case in point. While the official reason was to protect water sources and the environment in the area (which is in itself contested), pastoralists themselves were not involved in the decision, and the evictions were widely criticised for legal and human rights violations (Walsh 2008; IWGIA 2016).

A Nigerian scholar contacted as part of this work stated: 'it is hardly possible to exaggerate the role of institutions in Africa in inducing, aggravating or addressing climate justice within communities and nations'.[8] He gave the following example: the World Bank has been funding a multi-million US dollar erosion and watershed management project in Nigeria, which has a strong climate component. However, the agency supervising this project is weak and compromised, the result of which is abuse of power, land dispossessions, cover ups, and poor project implementation.

Similar patterns can be observed concerning local adaptation finance. Scholars like Colenbrander, Dodman and Mitlin (2018) have explored the processes by which local organisations are marginalised from adaptation funding access, drawing on findings from studies of cities across Asia and Africa. The authors argue that the social, political and economic processes that create and sustain inequalities within a country will be the same processes that determine how adaptation finance can be used, and who will ultimately benefit. At the same time, they cite examples of community saving groups in Zimbabwe and Thailand

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8   Personal communication with Chuks Okereke as part of the research for this report.

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to show how, under certain circumstances, even small amounts of adaptation finance can have a catalytic effect on procedural justice by increasing the capacity of local organisations to participate in decision-making processes.

This suggests there is scope for further Southern-led research on how to concretely boost the capacity of local organisations and civil society groups to engage directly in the governance of adaptation finance in different settings. This may have to be pre-figured by training of leaders in the intricacies of climate finance to raise meaningful levels of engagement. Such training would need to be tailored to the national and local context in which these decision-making processes are situated.

Social inequalities that we observe in the adaptation domain are also pertinent to subsidy changes or tax increases to transport fuels. These often provoke controversy, and blockades and strikes can hold governments to ransom because of the potential disruption they cause to these circuits of exchange. Lockwood (2015: 475), for example, cites the case of Nigeria's attempt to remove subsidies on petrol and diesel; after little more than two weeks of violent protests, 'the government reduced prices again by 60%, reversing a large part of the reform. Over a year later, subsidies for road transport fuels in Nigeria remain in place'.

Securing procedural justice in how decisions about energy are made by key actors in energy governance is vital. Decisions to allocate, use, and consume energy in particular ways, for particular purposes, by certain social, political and economic groups (and by implication to deny access to others) are mostly made out of the public eye and rarely in democratic forums. For reasons of commercial confidentiality, when dealing with private companies, or because of geo-strategic sensitivities about revealing available energy supplies, public participation and deliberation around questions of energy policy have traditionally been very weak. Consultations that provide limited or incomplete information, that do not consider equity and impact assessments, or that fail to effectively report the results of consultations, lead to high levels of public dissatisfaction with such processes. Even where public participation or comment is formally invited by the state, it often serves more to legitimate prior choices and decisions than to actually involve stakeholders in shaping policy choices (Lehtonen and Kern 2009; Stirling 2009; Newell, Mulvaney and Philips 2011).

By default, the day-to-day governance of energy is largely determined by producer or consumer (purchasing and bargaining) power where questions of justice and equitable access and distribution are easily marginalised in the context of market transactions. This is especially the case where, as in large parts of the world, states have either relinquished control over, or been required to liberalise parts of their energy sectors as part of power sector reform programmes supported or overseen by multilateral development banks that

leave large elements of energy generation and distribution in private hands (Tellam 2000). What is particularly alarming is the apparent weakness and under-development of institutions of global or even regional energy governance: arenas in which key priorities might be set and pursued, conflicts identified and mediated, and issues of justice and injustice handled and resolved (Florini and Sovacool 2009; McGowan 2009).

This highlights the need to bring a wider range of interests and voices into energy policymaking, and the need to deal with the procedural and distributive justice dimensions of decision-making about sustainability transitions. In terms of future research agendas, it suggests more Southern-focused work is needed on reforms to regional and global energy governance to strengthen policy architectures around energy access and poverty in moves to decarbonise energy systems. Universities such as the National University of Singapore (NUS) have led research collaborations on questions of global energy governance before, with a particular focus on implications for Asian countries such as India and China.[9] The **Energy Studies Institute** at NUS might be a good collaborator on such work in future.

4.1.3 Rights-claiming and coalition-building over resource access

A lot of research has been carried around over recent years around climate change and forests, notably in discussions around REDD+. This includes research on links between conservation forestry and carbon markets, and their impact on local processes and resource access. In most cases, forests and forestlands are governed by powerful incumbent actors with strong interests in how they are exploited or protected, and on whose behalf (Ding *et al*. 2016; Stevens *et al*. 2014; Sunderlin, Hatcher and Liddlel 2008). Distinctions between state and capital, public and private often poorly describe the everyday governance of forests by tightly knit social and economic networks of actors that transcend these categories.

Research on forests in South-east Asia (Dauvergne 1998) and globally (Humphreys 1996) shows a murky political economy at work where corruption, lack of transparency, violence and dispossession are the norm. This is often sustained by family-based, clientelist and patronage networks where timber industries are either owned by state officials ostensibly charged with their regulation and management, or payments are made by private actors to those with responsibility for forestry stewardship to influence their decisions.

Conservation programmes also end up promoting commodification of nature and marginalise the identity and livelihoods of resource-dependent communities, thus

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9   See special issue: **www.globalpolicyjournal.com/journal-issue/special-issue-global-energy-governance**

entrenching recognitional injustice. For example, Srivastava and Mehta's work (2017) in north-western India shows how state-based and market-based conservation programmes have systematically dispossessed the fishing and pastoral communities on the coastline who depend on mangrove ecosystems for their livelihoods. They document how this systematic dispossession has facilitated alienation and loss of identity (distributive and recognition injustice). Fortress-style conservation undertaken by the state authorities has declared swathes of mangrove islands off-bounds for pastoral communities, pushing them towards sedentarisation. In addition, the state has actively promoted aggressive industrialisation in the name of 'development' leading to the reallocation of commons, denudation of mangroves, and rampant soil and water pollution (Srivastava and Mehta 2017). Loss of access to the coast and coastal resources has meant that pastoralists and fishers are now taking up casual jobs in the adjacent industries. Hence these communities are not only up against the corporates but also the state, which is working in alliance with powerful corporates.[10]

The governance problems described above are often particularly acute in many developing country settings, which presents challenges for initiatives such as REDD+ (Kronenberg *et al*. 2015); the concentration of land in the hands of elites/corporations is a worldwide phenomenon that creates huge challenges for the pursuit of equitable and sustainable forest governance in relation to the SDGs. A recent initiative by the PARAN Alliance (mainly in Northern Kenya) is trying to realise land rights among pastoralists as a way to strengthen resilience.[11]

These issues extend beyond intra-elite transactions at the national and international level to the conduct of consultations and the exercise of supposedly free, prior and informed consent (FPIC) at the local level regarding land acquisitions for plantation agriculture and consent to participate in forestry projects. In the case of the Clean Development Mechanism (CDM), REDD+ specifically and carbon forestry more broadly, this has resulted in conflicts in places as diverse as Uganda (Bachram 2004; Cavanagh and Benjaminsen 2014; Edstedt and Carton 2018), Mexico and Bolivia (Leach and Scoones 2017), and South-east Asia (Howson 2018; Milne *et al*. 2018; Corbera, Hunsberger and Vaddhanaphuti 2017).

In contexts of high inequality, low levels of literacy and an absence of accountability to and within communities, scope for corruption, misinformation and appropriation of forest land is rife. Although REDD+ has been found to draw attention to local and customary tenure rights, interventions have been largely

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[10] A relevant example of ongoing work here is a coalition in Bangladesh that is trying to reclaim common pool water resources in the face of elite capture of water, which has worsened salinisation problems in the area (see: **www.cjrfund.org/news**).

[11] **https://namati.org/news-stories/communities-in-kenya-push-for-recognition-of-their-land-rights/**

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piecemeal and insufficient in the absence of broader land tenure reform. By recognising the rights of women, and indigenous and marginalised people in accessing and governing forests, REDD+ projects often claim to involve communities in decision-making. However, the ways in which such participation is conducted in practice – without being part of a wider political project – may pose new risks and exclusions, and make local people responsible for the most difficult decisions and trade-offs (Airey and Krause 2017; Collen *et al*. 2016; Krause and Nielsen 2014).

Thus, despite recognition of tokenistic processes of 'participation' in natural resource management, exclusions continue to occur, risking the further alienation of already marginalised communities and indigenous peoples (Airey and Krause 2017) and social groups, foremost women (Larson *et al*. 2015; Khadka *et al*. 2014; Stiem and Krause 2016; Westholm and Arora-Jonsson 2018). Hence, while there is a substantial body of evidence on how such exclusions emerge, there is a gap in understanding sub-national processes of decision-making and governance. In particular, there is a need for a more granular understanding of how these scales interact and sustain such marginalisation processes.

There are also a number of procedural issues around FPIC which affect 'clean energy' projects, sometimes defined to include hydroelectric projects as well as forest carbon projects, for example (Corbera, Hunsberger and Vaddhanaphuti 2017; also see Box 4.2). These arise also around CDM projects amid evidence of lack of consultation with host communities, poor dissemination of information about projects and meetings (Newell and Bumpus 2012; Phillips and Newell 2013). Increasingly project developers have resorted to videos and photos, and to collecting signatures or thumb-prints to demonstrate public engagement has taken place. This has also given rise to stakeholder consultation toolkits from Transparency International and Carbon Market Watch (Carbon Market Watch 2018).

It is hardly a new insight to suggest that processes of participation, consultation and good governance matter. But they matter increasingly as market-based mechanisms to tackle climate change are scaled up through the Paris Agreement's Sustainable Development Mechanism, as well as through private initiatives such as the aviation industry's **CORSIA** scheme which envisages a big role for forestry offsets.

Given this, *new Southern-led research on governance **supply** and **demand** would be highly useful in our view: how spaces are being claimed and used and to what effect and by whom, but also what governance shifts will be required around community consent, engagement and monitoring as well as transparent procurement and reporting procedures as interventions such as these are rolled out. We suggest below how community monitoring, toolkits and platforms for*

sharing information on access to information, rights to participation and consultation could help in this endeavour.

4.1.4 Valuing plural knowledge systems

There are also procedural justice issues around climate change knowledge production. Several authors have suggested that climate change and other discourses affirm the centrality of expert knowledges, as reflected in the global organisation of expertise through bodies such as the IPCC or the creation of global 'rosters of experts': 'epistemic communities' (Haas 1990) that are conferred a privileged and powerful position in global environmental decision-making.

Despite the attention given to equity and other justice issues (for example, in the latest IPCC Fifth Assessment Report), the central role attributed to particular scientific disciplines raises concerns about the implicit privileging of some ways of knowing over others in knowledge production about the Anthropocene. The discursive power concentrated around a few organisations and particular kinds of knowledge and expertise has profound implications for the generation of knowledge about environmental issues. It raises issues of 'cognitive justice' in the sense of whose knowledge counts: who participates in agenda-setting and to whom are the creators and disseminators of knowledge accountable for the effects of their knowledge (Visvanathan 2005; Forsyth and Sikor 2013). For example, the notion of cognitive justice has been particularly applied to indigenous groups in Latin America (Rodriguez 2017; Rodriguez and Inturias 2018).

The asymmetries in terms of the generation of environmental knowledge are also observed in local spaces. Such dynamics have been long observed in relation to knowledge about forest conservation and degradation (Leach and Mearns 1996). For scholars like Hillman (2006), for instance, river management in the Hunter Valley is the result of a colonial approach that excluded particular stakes from the decision-making process. This provoked a narrowly defined community of justice that excluded other voices and that became institutionalised in the local space. To put it another way, there has been an ongoing Anglo-centric misreading of the landscape at both biophysical and sociocultural levels. In effect, colonisers refused to recognise that there was a long pre-colonial history of management by tribal groups. As Hillman highlights, the exclusion of indigenous perspectives limited knowledge of ecosystem services and left a legacy of misunderstanding and environmental degradation that has continued to promote procedural injustice (Hillman 2006: 11). The question of who participates in this process is dominated by the power and the imposition of knowledge of a few riparian landowners. This line of query is complemented by Hillman's insights in relation to stream rehabilitation. For him, a key dimension of

justice is the co-existence and co-evolution of knowledge systems rather than the dominance of only one view (Hillman 2004: 35). He argues that a key to achieving a plurality of knowledge is a more complex and holistic understanding of practice in areas such as stream rehabilitation, rather than just relying on technical solutions. These insights could not be more timely given the disregard of aboriginal knowledge about managing bush fires in Australia, which has recently come to the fore amid the catastrophic devastation reaped by high temperatures, drought and poor land management in Australia.

In a similar vein, the work of Martin, McGuire and Sullivan provides theoretical insights on the need to move beyond dominant liberal conceptions of fairness in order to include local and autonomous constructions of different ways of knowing nature. By considering status hierarchies that result in bias for different groups in terms of procedure or distribution, the authors emphasise the domination of certain ways of knowing that overlook cultural diversity (Martin, McGuire and Sullivan 2013: 124). The dominant framing of society–nature relations according to conservation, economic growth and social justice denies prospects for spatial difference, for self-determination, for autonomy, and for nurturing non-modern socioecological values and practices. These neglected practices could bring about radical forms of justice in procedural terms by bringing awareness in terms of local differences and by reconciling social justice and environmental sustainability. Again, the question of whose voices count should be open to a variety of knowledges that have to do with society–nature relations.

This space for alternative voices in the decision-making process resonates with the searches of indigenous people and procedural justice undertaken during the literature review process. One of the most relevant ways in which indigenous voices have been included in the decision-making processes is through their participation in FPIC procedures. Although the literature in English is heavily biased towards cases from the global North, there are studies that can provide insights on this regard.[12] Heydon's work, for instance, shows that indigenous voices have been marginalised and their Treaty rights mis-recognised in the consultation process that was meant to decide a project on Canadian oil sands (Heydon 2018). This is the result of a consultation process that marginalised and misrecognised indigenous populations. For instance, even before the consultation process started, land had already been divided among oil industry proponents. This meant that indigenous populations did not have a say on the project placement (*ibid.*: 78). Similarly, this echoes the idea that the consultation process overlooked the importance of land in indigenous peoples' identity. In this sense, the two components of procedural injustice – misrecognition and marginalisation – underpin issues with distributive justice resulting from the

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[12]   For example, see
    http://burawoy.berkeley.edu/Public%20Sociology,%20Live/Rodriguez.Global%20Governance.pdf

project. As this example shows, even if indigenous people are granted a space at the negotiation table, there might be issues in terms of procedural justice that limit their ability to influence the decision-making process.

Along the same lines, Hurlbert and Reiner (2018) emphasise that the procedural innovations in Canada for indigenous people did not advance their case against pipeline construction and against the distributional problems resulting from environmental harms. While these procedural innovations, the environmental assessment and the right to be consulted involve defined rules for participation, consultation and specific legal questions in spaces where indigenous peoples have specific interest, they have not made a difference because of two reasons. On the one hand, there was a failure to provide substantive information concerning what might happen if a pipeline were to rupture. On the other hand, the Supreme Court of Canada concluded that a deep consultation was not required and that written reasons necessary to permit indigenous groups to determine their concerns were adequately considered and addressed. These two elements undermined indigenous people's rights to participate in the procedures in a fair way. In this sense, there was a lack of procedural information that materialised in other kinds of injustice. This is because, as the authors put it, due process does not necessarily translate into full procedural justice (Hurlbert and Rayner 2018: 1326). In this sense, procedural justice is considered a key element for the articulation of other kinds of justice. Distributive and recognition justice can only be achieved by unique procedural innovations that accept the special status of some parties as a matter of justice and not as an exercise of political bargaining to resolve a dispute.

Box 4.2: Dams and development: Using FPIC to resist hydropower dams in the Brazilian Amazon

The World Commission on Dams (2000) helped to establish procedures to respect the right of indigenous peoples to give or withhold their 'free, prior and informed consent' (FPIC) to development projects that will affect them. It advocated for procedural safeguards in water and energy planning processes in order to protect the rights of those people who have and will disproportionately suffer from the negative impacts of large dams such as indigenous people, small-scale farmers, women and resource-poor communities. Although FPIC has been affirmed as a right of indigenous peoples under international human rights law, it is not legally binding on the member states.

The case of Brazil is instructive in this regard. There are more than 12,000 Munduruku living in the Tapajós basin. They depend on the river for food,

transport and the survival of their cultural and spiritual practices. The Munduruku people have been fighting to protect their traditional land for more than three decades. From 2012 onwards, the Munduruku people organised resistance against the São Luiz do Tapajós Dam, which was slated to flood their territory, known as Sawre Muyubu. They also submitted protocols to the Brazilian government on how to conduct a culturally appropriate FPIC process as enshrined by the Brazilian Constitution and International Labour Organization (ILO) Convention No. 169. In the face of stiff opposition and international visibility and solidarity for the movement, the Brazilian environmental agency denied clearance for the project. This was a short-term victory as the Munduruku people along with other indigenous communities continue to fight against 40 other hydropower projects planned on the Tapajós river.

Sources: Cariño and Colchester (2010); Millikan and Porrier (2015); Gonzaga (2018)

What this literature and these experiences suggest is that due process is not enough for indigenous people to achieve justice; there needs to be further consideration of a special status that allows them to give consent (or not) for a given project. *Another aspect requiring exploration is how 'projectisation' could detract from larger questions of distributive justice: (i) from a climate perspective, what the cumulative impact is of many projects on specific groups; and (ii) how far projects reflect policy directions that already are 'cooked' and that project-level consultation cannot later shape or influence.*

4.1.5 Legal empowerment, legal pluralism and use of rights

Legal empowerment and rights operate as a cross-cutting set of strategies to promote accountability and stronger voice and participation of vulnerable groups in feeding into national and community-level decision-making, and in addressing threats and conflicts related to climate action and impacts. Research institutes such as the World Resources Institute have done a lot of pioneering work in this area including the development of useful toolkits for communities.[13] As they put it:

> Communities everywhere grapple with environmental injustices that
> leave them without a say in the decisions that impact their lives and
> the natural resources on which they depend. Indigenous Peoples are
> losing forests that have sustained their way of life for generations,
> and are increasingly finding that local knowledges are not sufficient
> or no longer relevant to the challenges of adaptation to climate

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[13]   Open, accessible data platforms created in partnership with WRI, like PREPdata and LandMark, make it easier for people everywhere to understand the threats facing their communities, track governments' response to these risks and hold officials to account. See: **www.wri.org/our-work/topics/governance**.

change. City residents don't know if their water is safe to drink. And farmers are struggling to protect their crops from an onslaught of climate impacts – droughts, floods, fires and rising seas – that they had little hand in creating. Governments are trying to tackle these challenges, but many lack the knowledge, capacity or funds to advance just, sustainable solutions. (World Resources Institute 2020)

As well as interest in strengthening access to justice through existing institutions and legal remedies, there is also interest in extending the law in new directions and establishing new precedents and applications. There has been a great deal of interest in the potential of the law to generate protection for human rights threatened by climate change. In this light, rights-based approaches to tackling climate injustices are gaining increasing attention (Humphreys 2009). One interesting source of momentum has come from groups adopting a range of legal-based strategies to hold governments to account for their obligations to act on the issue. A few examples will serve to illustrate the potential and the limitations of these legal cases as accountability strategies.

Box 4.3: Using legal routes and building coalitions: 'Nudging' corporates to address environmental harm in Kutch, India

Following the 2001 earthquake in Kutch, a remote border district on the north-west frontier of India, the region has been transformed into an industrial hub with thermal power plants, cement and salt-making factories, ship-breaking units and a sprawling Special Economic Zone. This aggressive industrialisation on the Kutchi coastline has led to massive denudation of the mangroves, and soil and water pollution. This has harmed the livelihoods of resource-dependent communities such as pastoralists and small-scale fishers who have been mobilising against these powerful corporations. One such example of mobilisation is the case of Tata-Mundra, which had attracted widespread attention for being the most energy-efficient and cleanest power plant in the country. With the help of two international advocacy organisations, the Sierra Club and Bank Information Centre (BIC), the local fishers union, the Machimar Adhikar Sangharsh Sangathan (MASS), lodged a complaint on the environmental and social impact of the project with the Ombudsman of the donor banks: the World Bank and the Asian Development Bank. Subsequently, they also approached the UNFCCC's CDM, arguing that the project should not receive benefits of a clean power station given its record of environmental damage. Although the company did not receive the CDM benefits, it has been praised for being carbon-friendly in several reports.

Members of the fishing union believe that their efforts between 2011 and 2015 have led to creating pressure on Tata Power and other industries in the Mundra SEZ to take cognisance of environmental destruction and also work with local communities for mitigating the effects of industrialisation and environmental destruction. Following this episode, Tata Power also set up a Sustainability Council which includes members from civil society organisations who have worked closely with local communities and advise the company on its community-facing initiatives.

Sources: Kohli and Menon (2016); Srivastava and Mehta (2017)

In several cases (see Boxes 4.2 and 4.3), communities have tried to access justice through established mainstream legal routes or national and international frameworks. While an increase in communities' participation in decision-making processes is essential to their legal empowerment, participation is seldom enough when there are information asymmetries and communities are not familiar with the context in which they are negotiating (MacLennan and Perch 2012). Not only are investments in capacity building for local communities' organisations important, but so is the recognition of collective rights. The acknowledgment of the right to land and language as well as the incorporation of these customary systems for access to justice are essential to empowering local communities' pursuit of climate justice.

There are instances where multiple normative frameworks of socially binding 'legal rules' that 'emerge spontaneously out of social life' and state-enforced laws (Moore 1973: 744) are drawn upon to underline access to resources. For example, research on water access in indigenous communities in Latin America clearly demonstrates the role of customary law and institutions in maintaining systems of access, distribution and collective rights as well as in resisting state-based regulatory laws (Meinzen-Dick and Bruns 2000; Roth, Boelens and Zwarteveen, 2005; Boelens, Bustamante and de Vos 2007). Armijos (2013) in her work on indigenous and *campesino* communities in Highland Ecuador shows how hybrid forms of claim-making and resource access emerge when state-based water laws and customary frameworks are used simultaneously to access water through irrigation and drinking water user associations. Such cases of legal pluralism can provide fresh insights into how state-based laws are vernacularised (Fisher 2015) and harmonised in different contexts leading to empowerment of communities. As Merry (2014: 120) puts it '[there are] differences in the way legal domains exercise power and authority, their links to each other and the various levels of moral and social support that they enjoy'. These play an important role in compliance, convergence, dispute resolution and resistance. In a similar vein, various organisations (such as Namati and CISIRO) are using participatory methods to harmonise customary systems with national or international legal frameworks on land use planning (Knight 2018) or climate

adaptation planning (Lyons *et al*. 2020) and these can have promising outcomes for not only procedural, but also recognition and distributive justice.

Vernacularisation of laws or hybrid frameworks could thus be a useful entry point to study how local communities and organisations can be empowered to mobilise for climate justice. Do these hybrid forms have equitable outcomes for those who are left behind, or do they end up reproducing existing social inequalities?

In terms of addressing intergenerational dimensions, the landmark youth climate lawsuit against the US government (*Juliana* v. *the United States*) is fascinating. This lawsuit is a constitutional climate change case against the US federal government, filed by 21 young individuals in 2015. At the time, the youngest was eight, and the oldest was 19. This case looks at the actions of the federal government for the past several decades of helping to perpetuate the climate crisis by continuing to fund the fossil fuel economy, endangering the lives of all citizens, but especially disproportionately harming the lives of young citizens and future generations. The Ninth Circuit found, however, that the plaintiffs had not established the redressability requirement for standing. The court said it was 'sceptical' that even the first prong of redressability – that the relief sought be substantially likely to redress the plaintiffs' injuries – was satisfied, noting that the plaintiffs conceded 'that their requested relief will not alone solve global climate change'. The court found that the Juliana plaintiffs lacked standing to press constitutional climate claims against the federal government. In a split decision, the Ninth Circuit Court of Appeals ruled that young people and other plaintiffs asserting a claim against the federal government for infringement of a Fifth Amendment due to process right to a 'climate system capable of sustaining human life' did not have standing under Article III which delineates federal judicial power regarding redress. The Ninth Circuit further concluded that even if the first prong was satisfied, the plaintiffs did not 'surmount the remaining hurdle' of establishing that the relief they sought was within the power of Article III courts.[14]

Earlier, Inuit groups in North America sought to advance their claims regarding the impacts of US government inaction on climate change. On 7 December 2005, the Inuit Circumpolar Conference (ICC) submitted a petition to the Inter-American Commission on Human Rights (IACHR) seeking relief from violations of the human rights of the Inuit people resulting from global warming caused by the GHG emissions of the US. With the help of legal advisers, Sheila Watt-Cloutier, an Inuk woman and Chair of the Inuit Circumpolar Conference, submitted the petition on behalf of herself, 62 other named individuals 'and all Inuit of the arctic regions of the USA and Canada who have been affected by the impacts of climate change'. The petition called on the Inter-American

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[14]   http://climatecasechart.com/case/juliana-v-united-states/.

Commission on Human Rights to investigate the harm caused to the Inuit by global warming, and to declare the US in violation of rights affirmed in the 1948 American Declaration of the Rights and Duties of Man and other instruments of international law such as the International Convention on Civil and Political Rights and the International Convention on Economic, Social and Cultural Rights. Specifically, the petition alleged:

> The impacts of climate change, caused by acts and omissions by the United States, violate the Inuit's fundamental human rights protected by the American Declaration of the Rights and Duties of Man and other international instruments. These include their rights to the benefits of culture, to property, to the preservation of health, life, physical integrity, security and a means of subsistence and to residence, movement and the inviolability of the home.[15]

The rights that are threatened, therefore, refer to a range of political, economic (livelihood) and cultural rights. The plaintiffs had to show that in bringing the case, all domestic remedies had been exhausted. The Commission rejected the petition and told the ICC that it

> will not be able to process your petition at present because the information it contains does not satisfy the requirements set forth [in the Commission's rules.] Specifically, the information provided does not enable us to determine whether the alleged facts would tend to characterize a violation of rights protected by the American Declaration.[16]

Essentially, the IACHR declined to process the petition because the petitioners had provided insufficient information for it to, 'at present', determine whether the alleged facts would characterise a violation of rights protected by the American Declaration.[17] For Martin Wagner who helped file the petition, the Commission 'weren't ready to tell a government what to do…advising a government of its human rights responsibilities… it was uncomfortable demanding specific science-driven remedial steps'. Importantly, the human rights issues raised by the case were not disputed by the Commission. The aim was not to exact compensation *per se*, but to secure assistance with adaptation projects. The case prompted aggressive interventions, nevertheless, from US government officials such as a Senator from Alaska who threatened the Inuit group that if the case proceeds 'you will not get another dime from us' in state financial support

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15 http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2005/20051208_na_petition.pdf

16 https://cas.uab.edu/peacefulsocieties/2006/12/21/inuit-appeal-for-human-rights-rejected/

17 http://climatecasechart.com/non-us-case/petition-to-the-inter-american-commission-on-human-rights-seeking-relief-from-violations-resulting-from-global-warming-caused-by-acts-and-omissions-of-the-united-states/

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(cited in Newell 2009). Similarly, Brazilian President Dilma Rousseff ordered an immediate cessation of relations with the IACHR after the regional body asked the government to suspend construction of Brazil's Belo Monte dam.[18] The IACHR had accepted a suit against the Brazilian government alleging that it – and the dam consortium – had failed to provide promised protection for local communities (Watts 2016).

Such cases, nevertheless, encounter a number of challenges: (i) jurisdictional challenges for a state trying to bring a lawsuit against another state or of citizens from one country establishing legal standing; (ii) recruiting plaintiffs which in many cases may be governments such as small island developing states reluctant to confront the world's largest economic power for whom they are dependent upon trade and aid; (iii) harms remain speculative: how, who, how much; (iii) assigning liability: which actors can be brought before a court – direct emitters such as power plants, producers of carbon (oil companies), car makers (as has happened in California); and (iv) responsibility is cumulative: desegregating contributions, gases, current versus past emissions – the long lifecycle of these gases in the atmosphere. It is virtually impossible in such a situation to apportion current responsibility. Establishing percentages for pay-outs would make judges very nervous. These are not one-off highly visible sensational breaches of human rights, but large-scale contributions over long time frames in which it is almost impossible to connect specific acts of culpability with tangible impacts. After all, as noted above, everyone contributes to the issue, even the plaintiffs.

Though not related to climate change *per se*, there are interesting legal precedents for citizens bringing cases against polluters where numerous actors are alleged to be complicit and responsibility has to be attributed. For example, in the Matanza-Riachuelo case in 2004, a group of residents living in a heavily polluted shanty town in Buenos Aires, Argentina, filed a lawsuit against the Argentinian Government, the Government of the city of Buenos Aires, and 44 businesses for damages to their health suffered as a result of the pollution of their water source. In June 2006 the Argentinian Supreme Court agreed to hear the case as a collective action and ordered the defendants to submit an integrated plan for cleaning the river basin.[19]

With climate change, however, we are dealing with the complicity of most actors engaged in industrial activity, though clearly within that panorama, some actors (nations and corporations) are more responsible than others. For example, studies from scholars such as Heede (2014) attempt to allocate percentage contributions to GHG emissions emitted since the industrial revolution to 90

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[18] https://latindispatch.com/2011/05/03/brazil-breaks-relations-with-human-rights-commission-over-belo-monte-dam/

[19] www.business-humanrights.org/en/matanza-riachuelo-lawsuit-re-argentina
https://farn.org.ar/archives/10827

companies in the world. Interesting in this regard are 'structural judgements' whereby courts recognise strong violation of rights, without specifying the remedies, leaving it to government (holding the rights obligation) to determine the best form of redress under the court's supervision (Sabel and Simon 2004; Rodríguez-Garavito 2011).

Although climate litigation is becoming a new front for climate action, with hundreds of cases arising around the world, these are limited in scope. Today, for the most part, only current generations have legal standing to sue; and to do so, they have to prove the impacts that they have experienced or are experiencing.[20] As with legal cases in general, the symbolic and political impacts of bringing the case (e.g. awareness-building, mobilisation) may be as significant as the result of the legal case (OSF 2018).

In general, the benefits of bringing such cases are thought to be the following:

1. For victims: a voice and recognition, lending legitimacy to their right to bear witness. This was hugely significant for the Inuit group for example in bringing their case before the IACHR.

2. Such cases generate formal findings, legal and factual, that can be useful in and of themselves and for future campaigning. For example, although the case was rejected by the IACHR, the request to have a hearing on human rights and climate change was granted.

3. Mandatory or recommended responses can accrue from the cases.

4. They can produce positive legal changes in domestic and international law. They help to create pressure, motivate the public and establish a basis for support for action. Citing rights is, in itself, useful in bringing claims.

5. Such cases serve to publicise the situation: the lawsuit generates attention. This is a relevant consideration in bringing a case: it makes an issue concrete and gives a human face to climate change.

The risks of going down the route of litigation, on the other hand, in addition to what was noted previously, include these:

1. It offers a confrontational approach.

2. It is limited to claims that can be processed through the law to the exclusion of broader ethical issues that arise in such cases.

3. It is slow compared with the urgent responses needed on climate change.

4. When lawyers get involved, it can be disempowering for victims.

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20 www.thealternative.org.uk/dailyalternative/2019/9/23/the-youth-climate-strikers-arent-just-taking-to-the-streets-theyre-also-taking-governments-to-court

5. Legal remedies often fail to allocate value appropriately. How do you value the loss of an entire country? The issues are about more than economic value.

Alongside these cases, there has been a wave of legal activism which does not explicitly invoke climate change as a rationale, but seeks forms of action nevertheless which constitute action on climate change and which also invoke rights-based claims as an accountability strategy to challenge public and private actors simultaneously; specifically their collusion in producing environmental harm. A relevant case would be that of the Iwerekan community of the Niger delta. The communities, supported by Earth Rights Action in Nigeria, filed a legal action against the Nigerian government, the Nigerian National Petroleum Corporation (NNPC) and the Shell, Exxon, Chevron, Total and Agip ventures in Nigeria to stop gas flaring. The Federal Court of Nigeria ordered that the gas flaring must cease as it violates constitutional rights to life and dignity. When it did not, contempt of court proceedings were brought against Shell and NNPC. The case was adjourned but shows how legally induced changes, prompted by non-climate concerns may, nevertheless, have a positive impact on action for climate change, drawing as they do on a long history of legal-based community activism to hold oil companies to account for their social and environmental responsibilities (Frynas 1999).

Attaining legal recognition is just a starting point, however. Many states already have extensive bodies of environmental and human rights law that go un-enforced. We need to view the law as just one among many strategies and tools that will help to achieve change and ultimately, contain and reverse those actions which continue to inflict human rights abuses on the poor. We have learnt from the experience of the environmental justice movement that processing all rights claims through legal processes can remove an issue from the arenas where poorer groups have a right to participate and have the capacity to make a difference; instead it places them in a setting where resources and elite expertise shape outcomes. There have been many instances where the energy and dynamism that characterises a movement is sapped once it moves to a legal arena (Cole and Foster 2001).

There are many barriers for the poor to ensure access to climate and environmental justice. These include low levels of legal literacy, financial resources to bring and sustain cases or to settle them in the event of losing a case, distrust of the legal system and high levels of scientific proof that are required in common law traditions to demonstrate beyond doubt the relationship between cause and effect (Newell 2001a). If making connections between harmed individuals and communities on the one hand and industrial polluters on the other is hard in instances of toxic pollution, demonstrating causality in a way that would satisfy a court between desegregated and diffuse causes of climate

change and effects which are rarely attributable directly and in and of themselves to climate change, presents even tougher challenges. From a strategic point of view, there is also the urgency of the issue, which suggests that attempting to resolve an issue or secure short-term action from legal processes, which are often long, drawn out and subject to delays, implies political (and human) costs.

In thinking about the role of the law as a vehicle for protecting human rights' violations associated with climate change, we have to recognise the implication of states in the generation of climate change which may profoundly affect their willingness and ability to confront those violations. In so far as international measures aimed at protecting human rights undermine or challenge existing regimes of legal and informal resource control, we can expect to see resistance to their implementation. The forestry sector is a good example in this regard (Seymour 2009). With large and increasing sums of money available for carbon offset schemes, there are strong incentives to 'protect' areas of forest for the absorption of carbon by those wealthy enough to pay for such offsets. The rush to make money from carbon sinks often brings human rights violations in its wake. For example, a Norwegian company operating in Uganda that leased its lands for a sequestration project is alleged to have resulted in 8,000 people in 13 villages being evicted (Bachram 2004). The project in Bukaleba Forestry Reserve was meant to offset GHG emissions of a coal-fired power plant to be built in Norway. International criticism at the time prevented the project from claiming carbon credits to 'offset' the power plant emissions, but the project continued, and the trees were planted. When the duty to protect the human rights of vulnerable (often indigenous) groups, communities with whom the state is any case in conflict over land and property rights, conflicts with an opportunity to attract high levels of investment, those without a voice in the deal-brokering are likely to lose out. As Seymour claims (2009: 4),

> As payments for conserving forests for carbon storage become increasingly likely, state and non-state actors alike will have strong incentives to passively ignore or actively deny the land and resource rights of indigenous, traditional and/or poor forest users in order to position themselves to claim compensation for forest stewardship in their stead.

This political reality does not negate the fact that states cannot, at times, be key actors in initiating action on climate change. As the political and legal entities with the power, resources and authority to engineer change, they are inevitably key to effective political change. It does, however, strike a note of caution about the extent to which effective solutions aimed at realising human rights are likely to come either from legal remedies alone, or from states in isolation from the adoption of a range of other political strategies. The strategic implications of this situation are discussed below, but it is useful to keep in mind Muchlinski's

reflection that: 'it is not difficult to create technical legal solutions to the question of corporate responsibility for human rights violations. The real issue is whether the political will exists to put them in place' (2001: 47).

As highlighted earlier, in several cases local communities have had to mobilise against the state to protect their claims to the commons (Boxes 4.2 and 4.3). Civil society organisations such as Namati have actively mobilised community members, training them as community paralegals, who then form the front-line activists to engage with formal and traditional law institutions.[21] For example, the Namati Environmental Justice Programme in India has trained a network of grass-roots paralegal advocates to work with marginalised communities who are affected by water and land grabs. This approach helps in raising public awareness about the laws and recourse to legal remedies as well as strengthening community monitoring systems in cases of non-compliance (CPR 2019).

There is scope to work with outfits such as the **Business and Human Rights Resource Centre**, or key groups involved in access to justice issues around environmental questions such as **FARN** and **CELS** in Argentina for example, around avenues to use existing tools and legal precedents for actions around climate justice. *What types of hybrid approaches or institutional frameworks are used by different actors to mobilise for claim-making against the state or powerful actors that could be a fertile ground for further research? It would be worthwhile to explore not only the participatory dynamic within these hybrid systems (who can participate and the challenges with representing the community claims) but also how these alternative systems, spaces and approaches lead to the broader achievement of transformative justice (gender justice, racial justice, trade-offs involved).* These questions are particularly relevant for countries of the global South which often have hybrid regimes of (resource) property rights that have evolved through a contested process of rule-making because of the colonial and post-colonial encounters in state-building (see Srivastava 2015; Armijos 2013; Movik 2012).

4.1.6 Procedural justice and the private sector

It is increasingly clear that through the volume of GHGs which the private sector generates, that it will (indirectly and some might argue unwittingly) contribute to violations of rights to health, food, water, and even, the right to life. In a context in which the scientific consensus is sufficiently robust to anticipate extreme negative consequences for poor and marginalised communities, we know that unchecked climate change will lead to widespread deterioration in the means of survival and ultimately death for an increasing number of the world's poor. In so

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[21]   **https://namati.org/what-we-do/grassroots-legal-empowerment/paralegals/**

far as corporations continue to emit large amounts of GHGs whose impact on others' human rights is known, they are complicit, albeit in a general political (rather than narrow legal) reading of responsibility. Corporations should bear responsibility in one form or another given that they continue to emit large amounts of GHGs that are known to have contributed to negative impacts on people's human rights. The normative and institutional frameworks, as well as political will, to hold corporations to account for complicit practices, are still lacking, however. This is where further Southern-based research and advocacy could help to define near-term entry points for legal reforms and innovations, as well as bolder longer-term proposals.

Histories of attempts to hold corporations accountable for their social, environmental and indeed human rights responsibilities through public international law do not provide many grounds for optimism about the effectiveness of public international law as an accountability tool for addressing climate change-related human rights violations. Though important in terms of articulating social expectations and defining the human rights responsibilities of the private sector, they fall short of being effective instruments for receiving and processing claims or providing redress to those whose rights have been violated. Similar challenges pertain to the national level where national laws also lag behind in developing clear human rights standards for businesses, as some of the cases below illustrate. Moreover, though some such instruments contain reference to the environmental obligations of firms in general terms, they do not contain climate-related provisions which could be invoked by victims. Hence it remains the case both that the human rights responsibilities of corporations are still in a process of being defined and the climate-related aspects of these are contested and far from clear.

There are an increasing number of examples of actors using the law to hold a private actor to account for its climate change responsibilities, nevertheless. In June 2004 New York Attorney General Elliot Spitzer, with eight states, and New York City, filed an unprecedented lawsuit against five of North America's largest power companies as contributors to public nuisance under common law, between them contributing more than 10 per cent of the nation's carbon dioxide emissions. Invoking liability claims that build on earlier judicial activism against the tobacco and asbestos industries, they demanded that these companies cut their carbon dioxide emissions in light of global warming and the damage their emissions were causing in terms of impacts on human health, economic impacts on agriculture and tourism (among other things). In September 2005, the District Court dismissed the case on the basis that regulating power companies was an issue for the political domain and not appropriately settled through judicial means. The attorney general was not, it seems, seeking to secure monetary damages common to such cases, but rather to set a precedent that firms are accountable for the emissions they produce and should put steps in place to

reduce these. Time will tell whether future such cases exercise a deterrent effect in persuading firms to internalise the negative externalities of their activities.

The case against the oil company Exxon for suppressing and denying evidence about the science of climate change, now rejected, is interesting in this regard.[22] The New York attorney general failed to prove that Exxon defrauded investors or misled them about climate risks to its business. The decision is the culmination of a suit that began more than three years ago, when then-New York Attorney General Eric Schneiderman began an **investigation** into Exxon's climate change accounting and its communication with investors. He alleged that the oil giant violated the Martin Act by failing to disclose that it used two different sets of numbers to assess climate risk, one for shareholders and the other for its own internal calculations. In a stark criticism of the strategy, a defendant for fossil fuel companies facing litigation stated:

> Trying to scapegoat energy manufacturers over climate change, whether here or in other lawsuits, is not going to solve climate change. New York and other governments should focus on fostering the policies and innovations required to address this challenge, not sue and undermine these efforts.[23]

Reflecting on the use of such cases, one activist lawyer put it the following way: 'our approach is to try and sue everyone we can. Most cases will fail but we may just do it anyway' (cited in Newell 2009). The value comes from catalysing the financial backers of industries and projects that are contributing to climate change, such as the insurance industry and banking sector, into re-considering their investments in these sectors (if the injuries are large enough) as well as raising awareness of the range of harms being generated by climate change (educational value). It may also galvanise US support for the climate regime in the face of legal liabilities as a form of regulatory defence. This perspective reinforces the point about the broader political goals that legal-based strategies can serve.

In terms of the role and responsibility of the private sector, it is also important to extend the chains of responsibility and liability for climate impacts so that insurance companies, banks and shareholders are required to accept their duties to ensure their financing is not undermining peoples' pursuit of their human rights through funding projects with a large climate footprint. Obligations could also be written into project financing along the lines of the Equator Principles or through the use of IFI safeguard policies. The IFC, for example, has adopted performance standards which include human rights provisions that companies are required to meet in return for receipt of financial support. The screening of

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22   **www.climateliabilitynews.org/**
23   **www.climateliabilitynews.org/**

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government export credit agencies for the climate-related human rights impacts they create, building on the type of activist campaigns described above, might provide another viable channel. This would improve upon the status quo. As Ruggie argues (2007: 16):

> Very few [governments] explicitly consider human rights criteria in their export credit and investment promotion policies, or in bilateral trade and investment treaties, points at which government policies and global business operations most closely intersect.

There are a range of instruments by which the public sector governs private investment, or the latter community establishes its own rules of conduct which could be used to advance climate responsibilities, mainstreaming obligations into trade and investment accords, voluntary and binding. World Bank and other donors could also play a role here. These could be positive 'do good' provisions about using clean technologies and production, rather than merely 'do no harm' negative obligations, though the two go together. Corporate social responsibility (CSR) conditions are making their ways into bilateral trade agreements such as that which exists between the US and Chile, and other agreements such as NAFTA contain environmental side-agreements, so why not climate-related conditions? The challenge is both to ensure these are not 'add-on' features of business as usual treaties whose overall effect is to significantly contribute to climate change and to address the concerns many developing countries as parties to such agreements may have about an additional layer of green conditionalities designed to control the South's development.

Further Southern-led research and advocacy on how best to strengthen the normative and institutional frameworks to hold corporations to account for the climate-related impacts of their operations would be welcome. This could involve helping to define near-term entry points for legal reforms and innovations, as well as bolder longer-term proposals. In addition, research from Southern-based legal and international relations scholars on how to strengthen the 'public governance of private finance' in key areas relevant to climate change, such as energy infrastructures would be valuable (Newell 2011). Finally, legal and political strategy research is critical on how to extend the chains of responsibility and liability for climate impacts so that insurance companies, banks and shareholders are required to accept their duties to ensure their financing is compatible with climate goals.

4.2 Distributive climate justice

Distributive justice refers to how questions of justice and equity in both managing the impacts of climate change (adaptation) and responses to tackle climate change (mitigation) are handled.

Projects to implement clean energy, mitigation, adaptation and resilience-building strategies have been associated with a series of threats and opportunities for a range of populations living in poverty and vulnerability. In a more macro context, climate justice concerns about 'climate debts' and addressing historical inequities to do with uneven responsibility and loss and damage continue to garner attention and need to be attended to. This is despite the difficulty of doing so and the need for action to advance while these issues are tackled (Klinsky *et al.* 2017). Innovative thinking among practitioners and academics about how to move these issues forward can make a big impact, as the example of the work of **EcoEquity** clearly shows.

4.2.1 Just transitions

There is a rapidly growing literature on just transitions (Morena, Krause and Stevis 2020; Swilling and Annecke 2012; Newell and Mulvaney 2013; Cai *et al.* 2011; Overy 2018; ILO 2015; Smith 2017) and many different ideas about the form, content and process for achieving a just transition: one which is attentive to and seeks to address justice dimensions of a chosen transition pathway, especially regarding impacts on poorer workers and communities. Key elements often include:

– 'Green' jobs

– Investments in low-emission and labour-intensive technologies and sectors

– Assessment of employment and social impacts

– Affordable access to energy services

– Attention to 'legacy' sectors with retraining of workers

– Compensation to communities whose livelihoods are at risk in the transition

– A range of ownership models including community ownership of renewable energy

– Local economic diversification plans

A just transition would aim firstly to take appropriate measures to protect jobs in vulnerable industries. This will be important where there is a risk that job losses would simply mean the transfer of carbon-intensive activities to other countries or regions that are failing to take sufficient steps to prepare for the low-carbon transition (carbon leakage). Where job losses are unavoidable, it would provide adequate support for those people and sectors that stand to lose out as a result of decarbonising the economy. It would also ensure that new jobs created in low-carbon growth areas are 'decent' jobs (which pay a decent wage, provide decent working conditions, are accessible to the right people and offer decent career progression opportunities) (Bird and Lawton 2009).

The notion of 'just grids' has also been introduced to reflect the need for power systems to contribute towards equitable and inclusive global, economic and social development. The concept can be a useful design element for an energy policy that provides universal access to reliable, affordable and sustainable electricity, without marginalising the poor. A key consideration in developing smart and just grids is that it implies decentralisation of storage and generation sources, as well as bidirectional electricity flows. These features make it easier to integrate smaller-scale, intermittent, and sometimes remote renewable energy systems such as solar and wind. It is possible that less centralised systems offer more opportunities for control over energy infrastructure as well (Newell, Mulvaney and Phillips 2011).

4.2.2 Energy justice

At the most general level, an 'energy-just world' has been defined as one that 'equitably shares both the benefits and burdens involved in the production and consumption of energy services, as well as one that is fair in how it treats people and communities in energy decision-making' (Sovacool and Dworkin 2014: 5). What amounts to an equitable share and what constitutes fair treatment leaves significant scope for disagreement and contestation, and there is significant scope for further Southern-led work on what this might look like in different national and regional contexts.

One such sub-set of approaches to energy analysis – energy justice – has increasingly emphasised the potential justice dimensions of low-carbon energy systems and transitions (McCauley *et al*. 2013). Although the roots of an energy justice approach are deep, and date back until at least the 1980s, more recent works have applied energy justice principles or concepts to the topic of low-carbon transitions. Scholars in this tradition have – somewhat counter-intuitively – argued that, while low-carbon transitions may well represent normative 'goods' in the sense that they contribute to reductions in carbon dioxide, they may also generate new – or worsen pre-existing – inequalities in society (Newell and Mulvaney 2013). To be sure, all major sociotechnical transitions require open and democratic participation by a wide range of actors (including firms and consumers, civil society groups, media advocates, community groups, city authorities, political parties, advisory bodies, and government ministries) to minimise unwanted impacts (Bickerstaff, Walker and Bulkeley 2013). As such, successful low-carbon transitions must be based around shared beliefs, values, interests, resources, skills and relations that are under-pinned by understandings of the need for pathways towards sustainability. A failure to facilitate the participation of all citizens may not only make for less responsive and representative policy choices; it may also create friction and resentment in society, widening exclusion and inequality.

Hence energy justice provides a normative framework for appraising the ways in which energy systems and transitions may inadvertently create or entrench unfairness or inequities within society (Jenkins *et al*. 2016; Jenkins 2018). While typically focusing on injustices related to the pre-existing (and fossil fuel-intensive) energy system (e.g. Healy *et al*. 2019), an emerging body of literature in this sub-field has turned its attention to explicitly examining the justice dimensions of low-carbon transitions themselves. In this vein – and contrary to conventional thinking on low-carbon energy which often uncritically assumes it to be inherently more just and democratic than the incumbent system (e.g. as Newell and Mulvaney 2013 have discussed) – the emerging work has explored issues such as the mineral extraction underwriting 'smart' technologies (Mulvaney 2013, 2014), the uneven economic costs of 'green' transitions (Evensen *et al*. 2018), and the impacts of 'low-carbon' energy infrastructure on communities (Yenneti and Day 2015).

The spatial energy (in)justice debate has featured prominently in Africa's current energy policy due to high costs of electrical grid extensions, wide spatial disparities in energy demand, as well as unavailable and unreliable electrical grids in territorially remote locations. In fact, in certain cases, mini-grid electrification systems designed to reduce energy injustices in remote or peri-urban locations end up serving rather large urban centres where electricity markets exist (see Pedersen 2016). Recent spatial energy justice initiatives in Africa have intensified self-organised solar photovoltaic (PV) electrification initiatives, particularly in territorially remote locations (Boamah 2020). Decentralised electrification systems such as stand-alone PV systems and private sector-led mini-grids in territorially remote locations are usually hidden from state oversight, or pursued with minimal dependencies on state-driven electricity services due to public perceptions of the need to fend for themselves in the face of an under-resourced or less responsive state.

In certain African countries, however, a state-driven electrification model significantly facilitates steady progress in nation-wide electricity access. Yet a lower social acceptance of decentralised solar PV electrification systems in many remote locations has been criticised for reinforcing or perpetuating spatial energy injustices due to their restrictive usage, lower energy output, higher upfront investment costs and higher social preference for centralised electrical grids (Boamah and Rothfuß 2020; Boamah 2020).

Boamah (2020) shows how after decades of terrible ecological impacts, inefficiencies, corruption, and spatial injustices associated with dependencies on both centralised power generation and distribution in Africa, decentralised solar PV electrification is presented as an 'irresistible' alternative or complement necessary for a just, development-oriented and low-carbon energy transition. Yet the study shows how affordable decentralised solar energy systems currently

have restrictive usage whereas systems with a larger capacity are accessible to a few richer social groups. The massive promotion of decentralised solar electrification does not guarantee energy justice for all. This, the author argues, is due to contested notions of entitlements to and use of grid-based and off-grid electricity, relative spatial advantages or disadvantages, practical constraints linked to the pursuit of low-carbon energy solutions – particularly in situations where people or governments do not feel (morally) obliged to make commitments to climate change mitigation – and monopolistic tendencies of electricity distributors/suppliers. Meanwhile, paradoxically, global North actors championing low-carbon energy technologies in Africa are sustaining their economies via massive use of fossil fuels. The study concludes, however, by arguing that these quandaries should not be taken to imply 'throwing away the baby with the bathwater' and that positive general conditions necessary for the wider development of the technology in Africa are still discernible.

In the past, competing conceptualisations of justice have variously condemned, justified (particularly from utilitarian perspectives) and ignored the geographically and socially differentiated impacts of energy production. What becomes clear is that the transition to a low-carbon economy will not be free from a similarly uneven distribution of burdens, particularly if low-carbon energy is pursued without attention to energy justice and sustainability. Highlighting the social and environmental externalities and impacts associated with the production of any energy form, whether fossil fuel-based or not, is not grounds for rejecting a role for that energy source as part of a balanced mix.

Our point in raising these issues is to emphasise the importance of having adequate decision-making processes in place to ensure that the inevitable trade-offs in terms of energy policy choices are managed in as equitable and just a manner as possible. In addition to those highlighted above, these trade-offs might exist between energy poverty and security which might argue for constant, affordable fossil fuel supplies, especially in many developing country contexts where fossil fuel subsidies are in place, but which conflict with sustainability objectives. Likewise, reducing fossil fuel subsidies for climate ends, has brought about protests in places such as Nigeria and Indonesia precisely because of fears of fuel poverty (Lockwood 2015).

These dynamics point to the need for further Southern-led research on how to increase energy access equitably. An example of some interesting research in this regard is a project looking at energy access in fragile and conflict-affected settings as part of a broader programme of work on empowerment and accountability in countries such as Mozambique, Pakistan, Nigeria and Egypt.[24] There is clearly scope to apply this approach in many other settings.

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[24]   www.ids.ac.uk/projects/demanding-power-struggles-over-energy-access-in-fragile-settings-a4ea/

4.2.3 Climate justice implications of mitigation strategies

As Sovacool *et al.* notes,

> Low-carbon transitions are often assumed as positive phenomena,
> because they supposedly reduce carbon emissions, yet without
> vigilance, there is evidence that they can in fact create new injustices
> and vulnerabilities, while also failing to address pre-existing
> structural drivers of injustice in energy markets and the wider socio-
> economy.
> (Sovacool *et al*. 2019a: 581)

Their work examines four European low-carbon transitions – nuclear power in
France, smart meters in Great Britain, electric vehicles in Norway, and solar
energy in Germany – through this critical justice lens. Focus on the injustices
associated with low-carbon transitions that of course need to be balanced with
the work on the energy and social justice benefits they can generate (rights to
food, energy, water, livelihood, education etc.).

Box 4.4: The case of cobalt mining in the Democratic Republic of the Congo

Technologies such as electric vehicles, wind turbines, solar panels, and even
fuel cells and nuclear reactors, all depend on a 'mineral foundation' of raw
materials such as cobalt. The cobalt demand in electric vehicle batteries is
expected to grow by 200 per cent between now and 2020, and again by
500 per cent by 2025, when the battery market is expected to be worth $100
billion. The Democratic Republic of the Congo (DRC) is the largest producer
of cobalt, responsible for roughly 60 per cent of global supply.

Cobalt mining undoubtedly generates poverty reduction and community
development for some, as well as necessary state revenue. Mining as a
whole contributes 97.5 per cent of national exports, 20 per cent of national
GDP, 24.7 per cent of government revenue, and 23.9 per cent of formal
employment. Yet many injustices are associated with mining cobalt. These
include the fact that once cobalt is discovered, homes are often torn up to get
at it, even causing major landslides that have killed dozens of people. Many
accidents go unreported and bodies, in some cases entire mining teams, are
merely buried underground. According to some estimates at least 80 miners
died in accidents between September 2014 and December 2015, with many
being buried alive after heavy rains. Other constant dangers to artisanal or
small-scale mining (ASM) include chemical poisoning from mercury and
cyanide (especially for gold mining), methane and coal dust explosions,

electrocution and death through the inappropriate use of underground explosives and resulting fires and explosions.

Cobalt mining also brings severe environmental impacts: pollution of rivers, soil and food systems, and even of people through dust and air, such that high levels of cobalt are in the urine and blood of mining workers and of entire mining communities. Indigenous people are also displaced and there are negative effects on community stability, including food security.

One industrial miner noted:

> The industrial mining process for copper and cobalt here essentially ravages the environment. It is almost identical to the mountain top removal processes for coal in the United States, except without the environmental standards and we use more acid. We blast apart whole mountains and forests, and generate massive amounts of waste, tailings, and slurry that gets dumped into the wilderness, or as is often the case, next to communities and the miners themselves.
> (Sovacool 2019a: 929)

The World Bank meanwhile has called the environmental impacts of mining in the DRC 'deplorable'. Sovacool concludes:

> the political economy of Congolese cobalt is precarious. Artisanal mining operations, vital to the livelihoods of hundreds of thousands of families, are essentially unsafe, ragged holes in the ground, with manual labour, children present, and miners so poor they dig without ladders or tools, some literally by hand. Industrial mines are sophisticated operations similar to strip mining for coal in the United States, with much mechanization and automation, but similarly widespread impacts on the environment, including ubiquitous dust, the pollution of streams and rivers, and the complete relocation of indigenous peoples.
> (Sovacool 2019a: 937)

There is a tendency to treat all clean energy technologies as homogenously green. Yet, the manufacture of solar PV modules, compact fluorescent lights or biofuels, as we saw above, may reproduce the unequal occupational health and environmental pollution burdens found in analogous industries. Solar PV technologies rely on semiconductor technologies built out of hazardous industrial chemicals, complex global supply chains, and contract manufacturing (Silicon Valley Toxics Coalition 2009). The legacy of environmental injustice in the wake of the semiconductor manufacturing in the 1970s and 1980s – toxic waste sites and occupational health problems in mostly immigrant women workers – reminds

us that all commodities come at unequal costs (Pellow and Park 2002). There is a risk that new economic opportunities to produce clean energy technology will be concentrated in countries with larger, existing industrial capacity (concentrated around manufacture and assembly in China and India, for example) while the dirty parts of the supply chains (mining and extraction) will be situated in lower-income countries.

The pursuit of clean energy, such as wind energy, through projects supported by carbon finance under the Kyoto Protocol's Clean Development Mechanism (CDM), has led to struggles over land and the distribution of revenues derived from the carbon credits in India, for example (Böhm and Dabhi 2009). In scenarios such as this, new funding streams in support of action on climate change can end up entrenching procedural inequalities in local decision-making around access to land and livelihoods where climate and carbon revenue streams compete with, and sometimes take priority over, other potential uses of land (Phillips and Newell 2013). Similar tensions over land allocation have arisen in developed countries such as the UK, the US and Denmark over land allocation for wind turbines and the distribution of financial returns from the sale of electricity, with different levels of support from private companies, government and local communities dependent on their involvement in project and policy design and the distribution of financial returns (Barry, Geraint and Robinson 2008; Phadke 2011).

The key issue is to ensure that the poorest communities in the world do not pay the price for the required rapid decarbonisation of economies (see Box 4.4). Regarding electric vehicles, for example, when the UK Climate Change Committee (CCC) announced its 2035 recommendation to accelerate the Battery Electric Vehicle (BEV) transition, members of the Security of Supply of Mineral Resources (SSMR) project wrote a research note to the CCC (Webster 2019). They pointed out that current *total* European demand for cobalt is 19,800 tonnes and that producing the batteries to replace 2.3 million cars in the UK (in accordance with contemporary statistics for new registrations) would require 15,600 tonnes. The UK would also need 20,000 tonnes of lithium, which is 45 per cent of current total European demand. Replicate this ramping up of demand across Europe and the globe for vehicles, recognising that there are other growing demands for the minerals and metals (including batteries for other purposes) and it seems unlikely that supply can respond, unless dependence on lithium and cobalt (and other constituents) falls sharply as technology changes (Morgan unpublished).

> There are concerns with battery production. Scarce materials, terrible working conditions for people in mines in the Congo where they get cobalt from. And the disposal of the batteries at the end. There is a risk that this leads to environmental disasters somewhere

else. We can drive around in clean cars in Norway only by exploiting
even more poor workers in third world countries than we do today
(Sovacool *et al.* 2019a: 604).

4.2.4 Energy and land grabs

The generation, storage and transmission of energy brings about sociomaterial
arrangements that vary according to the materiality of the resource (Bakka
2017). While wind energy infrastructure only occupies 5 to 7 per cent of the total
leased area, solar energy panels cover the totality of the land under lease
agreement. While the former allows for productive activities to continue, the latter
entails displacement. The processes of accumulation and dispossession will,
therefore, heavily depend on the energy under consideration, be it biofuel, solar,
wind or hydropower. Because most renewable energy needs large amounts of
land due to its low power density, large-scale renewable transitions will take
place in rural areas (Smil 2005). This transition will, therefore, put enormous
pressures on rural populations and may compete or displace existing land uses
and dynamics (Huber and McCarthy 2017). The environmental and
socioeconomic impacts of new approaches to energy supply will be mediated by
the existing power of different groups over resources previously not highly valued
by the energy industry (Naumann and Rudolph 2020). For example, the
increased reliance on electric vehicles will set in motion a land grab for territories
with newfound value such as the Altiplano in Bolivia or the Sonora desert in
Mexico, where there are vast deposits of lithium (Romero 2019). Some have
gone so far as to say that foreign oil dependency will simply be replaced with a
dependency on other imported materials, producing new forms of energy
insecurity.

Efforts to secure energy might include land acquisitions by wealthy countries to
meet rising energy demands, with implications for intra-national equity when
considering the dependency of the rural poor on primary production for
livelihoods. The history of biofuels development provides examples of how
attempts to address energy insecurity produce patterns of injustice in their wake.
Brazil transformed itself from an oil importer to an exporter, and is self-reliant in
fuel for passenger cars from sugarcane ethanol. A programme implemented in
the 1970s increased sugarcane production and mandated that new cars have
flex fuel engines to run on ethanol. But the industry is confronted with
accusations of slave and child labour in poor working conditions. The US is trying
to mimic this model of energy security by increasing ethanol production mainly
from corn, on which approximately 40 per cent of US clean energy subsidies are
currently estimated to be spent.

However, some civil society groups – Friends of the Earth, Union of Concerned
Scientists, and Greenpeace among others – contend that corn ethanol

exacerbates food insecurity (Naylor *et al*. 2007). In 2008, the demand for biofuels contributed to rising prices for corn, leading to 'tortilla riots' by *campesino* groups in Mexico for whom the crop is a food staple. There are also a series of issues around land acquisition as the push for agricultural investments for clean energy places pressures on land rights. Biofuels are just one of rising interest in offshore land investments, driven by governments securing food and fuel exports and by financiers speculating on commodity futures and land price inflation (McMichael 2012), and which bring in their wake a range of other justice issues which warrant further attention. Borras *et al.* (2011: 209) note:

> This is occurring globally, but there is a clear North–South dynamic that echoes the land grabs that underwrote both colonialism and imperialism. In addition, however, there is an emerging 'South– South' dynamic today, with economically powerful non-Northern countries, such as Brazil and Qatar, getting significantly involved. The land— and water and labor—of the global South are increasingly perceived as sources of alternative energy production (primarily biofuels), food crops, mineral deposits (new and old), and reservoirs of environmental services. National governments have looked inward as well, in what is often internal colonialism whereby land seen officially as marginal or empty is set aside for commodity production.

There are various mechanisms through which land-grabbing occurs, ranging from straightforward private–private purchases and public–private leases for biofuel production to acquisition of large parcels of land for conservation arrangement, with variegated initial outcomes. Some of this land has been cleared of existing inhabitants and users but not yet put into production; in many cases buyers and investors are simply preparing for the next global crisis.

Further research on strategies for defending the legal rights of existing users of the land, proper compensation for those whose land is acquired and scoping the landscape for the potential for greater citizen consultation and participation in the negotiation of land acquisition deals might help to pre-empt and address some of these injustices occurring. There are also research challenges where scholars have noted the need for greater 'reflexivity' in current 'land grab' research where methodological rigour around the use of land databases is politically and tactically crucial from the point of view of those who campaign against dispossession and exploitation (Oya 2013).

The industrial agricultural industry has marketed biofuels as a 'cleaner' alternative to fossil fuels for automobiles and as a bridge to a low-carbon, more sustainable bio-based economy. Proponents of biofuel support policies promised greater energy independence, GHG emission reductions, as well as economic opportunities for farmers and agricultural processors with little inconvenience to

the business models of fossil fuel suppliers and automobile manufacturers. Such arguments won support from European policymakers in the early 2000s, with the Directive on Biofuels for Transport (2003/30/EC) creating targets for increased biofuel consumption in member states. In addition to purported climate benefits, biofuel support policies have invoked a larger vision of biofuels as part of a future knowledge-based economy, in which European biotechnology provides the basis for profit from new intellectual property (Levidow *et al.* 2012). In the US and Europe, industry claimed that new cellulosic conversion technologies would not only be a bridge to a low-carbon transportation system, but also to a low-carbon bio-based economy in which agricultural crops provide petrochemical manufacturers with renewable feedstocks like bio-ethylene to manufacture plastics and other industrial materials (Martin 2017).

To date, these visions have yet to be realised. European policymakers asserted that their proposed regulatory mechanisms would disincentivise biofuel production involving undesirable land use changes associated with greater GHG emissions. Sustainability reporting systems were developed to provide greater transparency about the lifecycle GHG impacts of biofuels so that governments can provide preferential market access for biofuels with better GHG performances without violating WTO rules. These programmes principally rely on carbon accounting frameworks that assign carbon intensity values to specific biofuel pathways, enabling fuel suppliers and regulators to count only the more carbon-friendly biofuels towards biofuel mandates and therefore incentivising certain kinds of biofuel production practices over others. For instance, lower carbon intensity values are assigned to biofuel crops grown on degraded or abandoned cropland, rangeland, and cropland where farmers increase output without expanding into new land (e.g. through greater use of inputs and biotechnology to increase crop yields, or through concentrated animal feeding operations to intensify livestock production). This approach to ensuring GHG savings from biofuels has proved to be so complex as to be ineffectual (Newell and Martin 2020).

Relatedly, commodities such as palm oil feature in studies which seek to link climate justice with agrarian justice (Borras and Franco 2018) in the context of the global land rush. As Borras and Franco note, 'Understanding and deepening agrarian justice imperatives in climate politics, and understanding and deepening climate justice imperatives in agrarian politics, is needed more than ever in the ongoing pursuit of alternatives' (2018: 1308). For example, Pye (2019) notes that the palm oil industry is neither sustainable nor a viable development model. He argues that certification through bodies as the Roundtable on Sustainable Palm Oil represents a technical fix which neglects underlying dynamics of power and that working conditions in the plantations and mills entrench social inequality and poverty.

A more recent, and so far less researched, area of work is how mitigation and emission reduction actions may increase vulnerability to climate change, particularly of politically weaker social groups. Examples are appropriation of land for biofuels, forest conservation, or wind farms. The push and funding for emission reductions may provide political and policy windows to introduce interventions that benefit powerful actors at the expense of weak and marginalised social groups in particular (see also section on 'triple wins' below, and Box 4.5 on wind energy expansion in Mexico).

Box 4.5: Wind energy expansion in the Isthmus of Tehuantepec, Mexico

Wind energy will play a significant role in Mexico's energetic transition towards the development of domestic renewable energy production systems. It is estimated that the country has approximately 12,000 MW of economically viable wind resources, which represents approximately an investment of between $13 billion and $15 billion in the near future (AMDEE and PwC 2014). The outlook is so positive that according to the Law for Climate Change by 2045 at least 35 per cent of electricity at a national level will be produced by clean energy sources (Chamber of Deputies 2012). Although wind energy represents around 12 per cent of this renewable energy potential, the vast majority of wind energy development – almost 90 per cent – is concentrated in the Isthmus of Tehuantepec, the narrowest point in Mexico between oceans, where 25 wind farms operate.

Wind energy expansion, however, has not come without tensions and contradictions in relation to environmental justice, especially for indigenous populations living in the Isthmus of Tehuantepec. This is because this industry has exacerbated inequalities and has revitalised social conflicts within and across towns. Through the utilisation of intermediaries and deceitful strategies, land leasing agreements on communal lands have been secured for the next 30 years with the possibility of automatic renewal for the same amount of time. Local community members emphasise how leasing agreements were never translated into indigenous languages, but also how communities were never invited to participate in the project design phase. Out of 25 wind farms, 24 were installed without conducting a FPIC procedure according to ILO Convention No. 169. This means that the involvement of the community was reduced to giving consent to wind energy companies. The last wind farm to be built in the Isthmus did conduct a FPIC procedure. However, several irregularities have been identified by local media and NGOs, notably the fact that the process was not culturally adequate.

In addition to problems resulting from the lack of involvement of indigenous populations, there are also problems related to the distribution of energy harvested by the wind farms. The majority of the wind farms operate under large private investments known as self-generation societies. This means that private–private or public–private partners set up a society for generation and commercialisation among associates, paying a fee to the Mexican government. The implication of this generation scheme is that local communities do not benefit from the energy generation taking place in their territories. Rather, energy is transmitted to industrial plants in Mexico City or Monterrey. One of the community members argues that European governments may be really worried about climate change but in reality do not care about local populations in the Isthmus of Tehuantepec. Wind energy expansion in Mexico, therefore, provides insights on the need to incorporate environmental justice analysis into the study of low-carbon projects in the global South.

Sources: Chamber of Deputies (2012); AMDEE and PwC (2014); Advisory Group (2015); Huesca-Pérez, Sheinbaum-Pardo and Köppel (2016). See also Dunlap (2017)

There is clearly scope for significant further work on just decarbonisation and just transitions from the point of view of communities in the South. Projects could combine work looking at justice issues along supply chains in key sectors such as energy and transport (exploring labour conditions and the distribution of economic value), with a focus on how new investments interact with place-specific social inequalities. This would be with a view to thinking about safeguards and governance innovations that might be required to ensure poorer groups do not pay the price for decarbonisation efforts.

*There is also a need to ensure that renewed interest in carbon trading does not reproduce social and environmental injustices. This provides avenues for important research led by Southern researchers, practitioners and activists. For example, it is far from clear as we move from words to deeds to implement Article 6 provisions of the Paris Agreement that lessons have been adequately heeded about the importance of citizen participation and oversight of projects and proper redress and liability mechanisms when things go wrong.[25] Southern-based research looking at positive practice, relevant precedents and modes of knowledge exchange could help to inform and protect communities against potential injustices associated with the next wave of carbon markets in the coming years. Working with global civil society networks (such as **Carbon Market Watch**) to monitor and engage with unfolding developments could present a positive way forward.*

[25] **https://carbonmarketwatch.org/publications/practitioners-guide-for-local-stakeholder-consultation-how-to-ensure-adequate-participation-in-climate-mitigation-actions/**

4.2.5 Climate justice and strategies for adaptation and resilience

While justice considerations loom large in objectives for interventions to support adaptation and resilience, a number of concerns remain over who benefits and who may lose from these efforts. Over recent years, the focus of adaptation and resilience programmes has moved from a focus on incremental change – i.e. adapting to climate impacts within existing governance structures – to more transformative approaches – i.e. also considering how deeper social, economic and political structures create and reinforce vulnerability and hence are part of the problem (Pelling 2010; O'Brien 2012; Few *et al*. 2017).

We know that the poorest and most marginalised groups are likely to be hit hardest by climate shocks and stressors, and that they have the least capacity to recover and adapt (Sperling 2003; Eriksen *et al*. 2007). Even so, efforts to adapt may benefit some groups over others. The process of prioritising will depend on political choices between often competing demands (Paprocki and Huq 2018; Klein and Möhner 2011), with some groups being better able or better positioned to access climate funds. Adaptation and resilience interventions may in themselves not be just, nor have just outcomes, and may in some cases lead to maladaptation[26] (see also Box 4.6). Forced relocation of informal settlements from increased flood risk, for example, will raise serious justice concerns. Building of flood defences in one risk area may increase flood risk for downstream populations (Eriksen *et al*. 2011). Or, development of shrimp farming may create new incomes for some while degrading ecosystems and natural defences against climate risks for others (Paprocki and Huq 2018).

Box 4.6: Avoiding maladaptive pathways in the Sundarbans (India and Bangladesh)

The Sundarbans is a major climate hotspot located at the southern end of Bangladesh and in the state of West Bengal in India. The delta faces significant climatic and other ecological challenges such as erratic rainfall, sea-level rise and submergence of islands. Seawater ingress and loss of land have led to massive out-migration of the male members of the community (aged 16 to 50 years), particularly after the cyclone Aila in 2009, to different parts of the Indian subcontinent, leaving women and children behind. This has resulted in a steady rise of female-headed households who now face the triple burden of household activities, securing livelihoods and childcare.

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[26]   Maladaptation is a situation where adaptation actions 'impact adversely on, or increases the vulnerability of other systems, sectors or social groups' (Barnett and O'Neill, 2010: 211).

The loss of sweet water ponds and agrarian distress has also forced poor women into destitution and poverty exacerbated by food and nutritional insecurity.

Options like safe exit and resettlement of the population require careful thinking. In Bangladesh, which has a significant population of internally displaced people due to natural hazards, most of the migrants who move into the urban centres are forced into a life of poverty, hazardous jobs (brick making) or human trafficking.

Sources: Ghosh, Bose and Brahmachari (2018); McDonnell (2019)

Another justice dimension in adaptation is that while a lot of discussion of allocation of resources are between countries, the outcomes will depend on allocation of resources within countries. Climate justice at national and international scales will look different to sub-national and local climate justice, as the latter demands the untangling and correction or reversal of structural inequities. A study of sub-national climate finance flows in Malawi by Barrett (2014) showed that most funds went to areas which had the highest utility for donors and those with the best ability to absorb funds, with the most vulnerable areas receiving little funding in comparison.

Considerable attention has also been given to the role of different types of knowledges in understanding challenges of adaptation and resilience. At the policy level there is increasing recognition of the importance of integrating local perceptions and knowledge along with scientific assessments in an equitable way. In practice, challenges still remain on how to ensure responsive, participatory, just and equitable adaptation strategies for populations in 'hotspots' who face threats to their livelihoods, or for populations more likely to be affected by slow onset of migration (see also Box 4.7 on indigenous peoples and climate change). However, it cannot be assumed that adaptation processes at sub-national and local levels will be immune to capture by powerful actors (Tschakert *et al*. 2016).

Another challenge lies in the understanding of social differentiation, and particularly gender, in adaptation and resilience work. There has been significant progress over recent years in moving gender-climate change work from arguably a narrow understanding of gender that sees women as 'weak and vulnerable' (Arora-Jonsson 2011) to an understanding of the capacity of agency among men and women. This shift has also encompassed the practical as well as strategic gender concerns in adaptation and resilience programmes, and more recent considerations of the role of intersectionality (Osborne 2015). To tackle justice concerns, it is therefore necessary – but not sufficient – to look at gender implications within climate change projects. It is arguably equally important to understand structural gender equity that may help or hinder women and men

from benefiting equally from interventions. An adaptation project may risk adding to the burden of women or reinforcing gender inequities unless it considers the barriers that women are facing to participation.

Box 4.7: Indigenous peoples and climate justice

Indigenous peoples and minorities are among the groups most vulnerable to climate change due to often being socially, politically and economically marginalised. For example, pastoralists in the Horn of Africa are facing increasing competition over land which makes it harder for them to adapt using traditional mobility strategies. Images and discourses focusing on loss of livestock during drought reinforce perceptions of pastoralists as particularly vulnerable to climate change. They lend further political weight to calls for pastoralists to sedentarise, contrary to evidence showing how traditional pastoralist livelihoods are in fact highly resilient if allowed to uphold traditional migration routes to adapt to changing water and feed availability (Hesse and Cavanna 2010).

Until recently, indigenous peoples have received little formal recognition in the UNFCCC process as compared with other international conventions, notably the Biodiversity Convention (CBD). A focus on indigenous peoples came only in 2015 with the Paris Agreement, which includes references to indigenous peoples' rights as well as their knowledge systems. Following this, COP 24 in Katowice (2018) established the Local Communities and Indigenous Peoples Platform, which aims to strengthen and exchange traditional knowledge for mitigating and adapting to climate change.

The annual Minority and Indigenous Trends report from 2019 focuses on climate justice and highlights how indigenous peoples and minorities are disproportionally affected by climate impacts, pointing out the need to address structural inequalities: '[t]he vulnerability of minorities, indigenous peoples and other excluded groups (...) is a product of a wider backdrop of discrimination, encompassing land, housing, culture, livelihoods and migration', and '[t]he surest means of strengthening communities' resilience is through protection of their fundamental rights to effective participation, identity, land, livelihoods and human security' (MRG 2019: 15).

Sources: Hesse and Cavanna (2010); MRG (2019)

Where next? Malloy and Ashcraft (2020) propose that three conditions must be present for the implementation of just adaptation: inclusion of vulnerable groups as partners with agency, a recognition of systemic injustice, and an incremental evaluation of progress. It is clear that promoting socially just adaptation and

resilience programming will demand close attention to linkages between the structural drivers that create vulnerabilities, such as social, political and economic marginalisation, as well as the information, practices and technologies that can help to support adaptation.

Access to better climate information, for example, is a matter of providing information in appropriate formats that can be understood by different social groups. Equally important, however, is the ability to use the information. This will depend on everything from governance to social and gender structures that may hinder the ability to act on the information.

One part of this challenge is to develop analytical tools to determine thresholds that specify minimum acceptable levels of protection against climate impacts; mobilise, target and disperse funding; plan and refine mitigation strategies; and assess approaches to adaptation. At the core of this argument is the belief that identifying likely transgressions of human rights thresholds would improve policies and provide criteria for their adoption or rejection (Cameron 2014).

Another is to better understand the power and politics of adaptation policy processes. An increasing amount of work has gone into understanding how adaptation decisions and outcomes may be determined as much by the prevailing political context as by the level of evidence of adaptation needs (Eriksen and Lind 2009; Eriksen, Nightingale and Eakin 2015; Nightingale 2017). Already Naomi Klein's (2007) *Shock Doctrine* explored how development interventions in the wake of disasters such as the tsunami of 2004 or hurricane Katrina were forced through where previously they had been resisted amid the prevailing disorientation and crisis mode of decision-making.

Where we know less is what it takes to shift adaptation and resilience action towards just pathways, as well as what transformative approaches to climate justice, as highlighted above, may look like in practical adaptation and resilience programming. One suggestion by Ziervogel *et al*. is to align climate resilience work more closely with social justice goals through making the 'rights of… citizens as the object to be made resilient, rather than physical and ecological infrastructures' (2017: 123). Based on a study of cities in Africa, they suggest an approach that, among others, centres on 'negotiated resilience' that allows for consideration of the diversity of local interests, knowledges and contexts. Along the same lines, McGray (2020, pers. comm.) suggests that there is a need for research that explores how climate finance may help to support broader social change, including changes in gender roles, helping vulnerable groups to better navigate processes of change in the context of climate change.

It seems clear therefore that there is scope for Southern-led research to better understand how funding to support adaptation and resilience can act as a catalyst to overcome barriers as well as acting as a trigger for tackling structural

drivers of vulnerability. One likely community of practice to engage with may be the annual Community Based Adaptation (CBA) Conferences.[27]

4.2.6 Responding to climate change – conflict linkages

Conflict at all levels and in all forms is endemic to climate change discussions, linked to competition over resources, increasing pressures and stresses, and everyday forms of exclusion and dispossession. Whereas the causal link between climate change and conflict is complex and contested, there are clear interlinkages in terms of struggles over resource use. Insecurity is produced by the everyday practices of exploration, extraction and distribution. Clear examples of conflicts and contradictions between energy security and human rights are found throughout the global fossil fuel economy, leading some to claim that nations awash in energy and natural sources – particularly those who rely heavily on these exports for foreign exchange earnings – are prone to suffer from a resource curse (Ross 2012).

For example, securing Nigerian sweet crude oil often involves dispatching paramilitaries in the Niger Delta to protect oil infrastructure. Local communities often attempt to secure their own energy needs by rupturing pipelines. The injustices of petro-violence and human rights abuses perpetuated by petro-states are well known features of the global oil commodity complex (Watts 2005). Such examples highlight the fact that, in the case of energy, state interests are often poorly aligned with those of marginalised groups who remain deprived of energy or whose land is home to oil, for example, which places their livelihoods in the path of lucrative state and private revenue. Conflicts between indigenous groups and the state, acting on behalf of state-owned and multinational enterprises, in many parts of the world, illustrate this dynamic clearly (see Figure 4.1). These distributional inequities in terms of uneven exposure to the impacts and harm associated with extraction and with who captures the benefit also of course reflect procedural inequities in terms of lack of, or weak representation, of those groups most affected by siting decisions. Many of the conflicts in Ecuador and other parts of Latin America illustrate this dynamic amid poor levels of representation in national decision-making and challenges around legal standing in bringing legal cases over the development of specific oil fields, for example (Collinson 1996).

Hence conflict and violence manifest themselves not just in 'climate war' (Welzer 2012) scenarios, but also attacks on those defending environments from new forms of extraction. This includes rising levels of violence against environmental defenders: globally, environmental defenders face growing threats to their security and are increasingly direct targets of violence. This violence is

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[27]   McGray 2020, pers. comm.

embedded in the broader context of gender, race and class inequalities, and often reflects efforts to quell resistance to larger power imbalances. Indigenous and tribal communities, and women members of environmental movements, for instance, have faced distinct threats, at the hands of powerful political and economic actors. *An important question to explore, in that connection, is how spaces for engagement diminish or morph in the face of implementation of climate action and as the impacts of climate change are felt more extensively in different contexts.*

Figure 4.1: Acts of violence against environmental activists

TOTAL NUMBER OF KILLINGS PER COUNTRY

Country	Killings
Philippines	30
Colombia	24
India	23
Brazil	20
Guatemala	16
Mexico	14
DRC	8
Iran	6
Honduras	4
Ukraine	3
Venezuela	3
Cambodia	3
Kenya	2
Gambia	2
Chile	2
Pakistan	1
Senegal	1
South Africa	1
Indonesia	1

NUMBER OF KILLINGS BY SECTOR

Sector	Number
Mining & Extractives	43
Agribusiness	21
Water & Dams	17
Logging	13
Poaching	9
Fishing	2
Wind power	1
Other	7
No clear link to a sector	55

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Source: Global Witness (**www.globalwitness.org/en/campaigns/environmental-activists/enemies-state/**). Reproduced with permission.

4.2.7 Adaptation-mitigation linkages and 'triple wins': The case of climate-smart agriculture

There is an increasing focus on how to integrate goals of mitigation, adaptation and development. This also raises clear justice concerns, and there is a small but growing literature addressing these around key sectors such as agriculture. Since it was first coined in 2008–09, climate-smart agriculture (CSA) has attracted a large amount of government policy attention and donor funding. Clearly there is a strong case for thinking more systematically about the

relationship between climate change and the organisation of global systems of food and agriculture, and for constructing global and national institutional mechanisms and processes for addressing this in inclusive and equitable ways. Yet, many argue that the current framing of CSA is unlikely to achieve these ends (Newell and Taylor 2018; Karlsson *et al*. 2018).

Rather than embracing an opportunity to reflect upon and address the contribution of agricultural models organised along industrial, high-energy and chemical inputs, and export-led lines, the advent of CSA has been used to exploit opportunities to consolidate and advance the control of private actors over land, technology and livelihoods in ways that are inimical to addressing either rural poverty or sustainability. This has occurred by advancing controversial technologies (such as GMOs and biofuels); promoting agricultural techniques and practices whose social and environmental benefits are still poorly understood (such as biochar and no-till agriculture); and by seeking to finance CSA through new forms of 'green economy' financing and global carbon markets whose dubious environmental benefits and negative social impacts have been widely documented (Stephan and Lane 2015).

As more than 350 civil society organisations declared in a statement from September 2015 criticising the Global Alliance for Climate-Smart Agriculture (GACSA):

> Agribusiness corporations that promote synthetic fertilisers, industrial meat production and large-scale industrial agriculture – all of which are widely recognised as contributing to climate change and undermining the resilience of farming systems – can and do call themselves 'Climate Smart'.
> (Climate Smart Agriculture Concerns 2015)

Solutions proposed under the umbrella of CSA reward and thus consolidate the power of large agribusiness corporations and finance capital. The effect of discursive privileging and institutional support for only those solutions consistent with the existing distribution of power, finance and technology in global food systems is to delegitimise, and in some cases appropriate, alternative solutions which might make an important contribution to climate change mitigation and adaptation as well as enhance the productivity of the majority of the world's smallholder farmers. The de-legitimation of alternatives is combined with the repetition of narratives that population increases together with declining yields and lack of available land means that practices such as CSA are framed as the only viable way forward. The effect is to elude questions about which farmers and whose environment will be protected by CSA and how, while privileging carbon fetishism and reducing the climate-agriculture interface to commensurate fungible units – the 'carbon cash crop' model.

Thus, an emphasis on emissions trading has displaced a focus on emissions reduction; an emphasis on control through technology has predominated over access to technology and radical innovation; consolidation of land rather than redistribution; and reinforcement of property rights rather than sharing of technologies central to climate-resilient agricultural practices. CSA has become a site for the attempted resolution of the need for finance to find something to invest in, extending their control over land; for governments and neo-liberal global institutions to shore up flagging carbon markets by expanding into agriculture; for biotechnology firms to re-invent GMOs as 'climate-smart'; and for global agricultural institutions to raise their profile and diversify their funding streams by taking on mandates for tackling and responding to climate change. The unfortunate and inevitable effect of this confluence of agendas is to ensure that other accounts of how to respond effectively to the crises facing food, farming and the environment are side-lined and ignored (Newell and Taylor 2018).

The case of CSA underscores the importance of more transformative approaches to the pursuit of climate justice: ones which deliberately seek to challenge and disrupt existing power relations which lie behind dominant framings of the problem and preferred solutions and are reflected in privileged access to key decision-making bodies and greater material assets. In practice, this means placing squarely at the forefront of analysis questions of whose productivity is to be increased, by what means, at what cost and to whom. Can efforts to promote climate-resilient agriculture also be used to improve access to seeds and technology; to enable a greater say for marginalised farmers in innovation systems and more participation in national policy design?

To ensure poorer farmers avoid climate injustices associated with solutions imposed from above, there is scope for participatory research on 'farmer-first' approaches. These start with the needs of smallholder farmers and others, and seek to map more climate-resilient alternatives in terms of specific crops, varieties, and inputs. Such approaches explore what broader shifts in infrastructures, markets and policy would be required to enhance the capacity of smallholders and others to strengthen their ability to adapt to climate change impacts while avoiding locking in high GHG emissions pathways. National agricultural research institutes and innovation networks might provide useful entry points for collaboration in setting up this type of a more bottom-up approach to climate-smart agriculture.

5. How to build research processes for transformative climate justice?

Based on the previous sections where we have highlighted research gaps and potential thematic entry points, this section focuses on where and how IDRC can best add value in what is becoming an increasingly crowded field. Returning to the concept of transformative climate justice, we here highlight, respectively, research processes and focus areas that could help facilitate Southern-led visions and approaches to climate justice.

5.1 Potential research modalities for IDRC

Building transformative action from below: From the review we see significant scope for further theory-building from the South grounded in the experiences, traditions and perspectives of people who are on the front line of climate justice struggles. At this local scale, however, climate justice could be couched in different distributive or recognitional concerns such as loss of livelihoods, land grabs, poor water quality, displacement and migration or loss of identity. How do we then understand such localised and vernacular perspectives of injustice and link them to broader concerns around climate justice? Our experience and review suggest that locally grounded research requires action-oriented and more participatory forms of research (see Box 5.1). This might include innovative approaches to citizen research, co-design and participatory research, and involving visual methodologies (such as participatory video or participatory scenario and futuring work), and creative approaches to climate communication.

This speaks to the need to be particularly attentive to the role and agency of some of the most vulnerable groups in society such as women and LGBTQIs, younger people, older people, those with disabilities, forcibly displaced peoples and indigenous groups who need to be central to the research on climate justice. Participatory methods can bring to the fore local and more place-based understandings of 'climate' and 'justice' which may be quite different from how these are understood in the mainstream debates. This links back to the issue of cognitive justice and value framings that we highlighted earlier (section 4.1.4). These dimensions and framings will then need to be linked to the broader structural processes that are driving these changes and exacerbating climate change impacts for local communities. Local collaborations with grass-root movements and NGOs can be sought to build up this research process, recognising that climate may not be the core concern of these NGOs and local-

level actors. Hence using the distributional lens of justice – around rights claims and issues of access – may be a good entry point to initiate a dialogue with these research actors.

There is, of course, a difficult and challenging balance to strike between facilitating local research that addresses particular aspects or manifestations of climate injustice and locating that work in relation to broader global and structural drivers of those processes, or demonstrating their broader significance. Clearly there is scope for comparative and multi-disciplinary collaborations that look at the creation of climate injustices across scales, following funding and political networks and decision-making from global to local level, for example (Newell and Bumpus 2012). While it is not reasonable nor helpful to expect people without the resources, skills or training to make all of those connections in their work, teams of researchers working together that bring complementary methodological, disciplinary or analytical skills may be able to do just that. To take a personal example, a collaboration with PRIA (Participatory Research in Asia) in India focused both on issues of local-level corporate accountability for industrial pollution and served as a case study in its own right in Vizag, as well as an illustration of the potential and limits of voluntary CSR approaches for a different audience of academics and activists (Newell 2005). There is an argument to be made that place-based research *is* global if climate change is the focus: global circulations of carbon and the political and economic processes which drive them and seek to manage them, have impacts which are ultimately local and which need to be understood in those contexts where front-line adaptation responses are also required.

Multi-country consortia working on climate change provide an obvious entry point for support for comparative work across many of the issues we have suggested here as worthy of further research attention. Given their focus on building capacity through education, training, research and communication, the **Least Developed Countries Universities Consortium on Climate Change (LUCCC)** would seem to be an obvious entry point for such work.

Another potential strategy for ensuring that the link between climate justice and resource justice becomes more explicit would be to consider the use of Participatory Impact Pathways Analysis (PIPA). (PIPA is in turn drawing on, and has similarities with, IDRC's own Outcome Mapping.) These offer ways of designing research from the outset with the involvement of potential beneficiaries and collaborators, ensuring that local (and more Southern-based) understandings of justice come to the fore. This could be complemented with ongoing means for monitoring and assessing impact in ways that are defined and co-produced by the users themselves. Needless to say, building such research processes is time consuming, and its transformative potential can only be understood and realised through longer time scales. Hence, funding

decisions need to factor in some of these challenges. As suggested earlier, a projectised focus on specific issues can cloud several other dimensions of distributive and recognitional injustice; building bottom-up perspectives of justice can potentially mitigate some of these threats.

Box 5.1: Transformation as praxis: Co-producing research in marginal environments in South Asia

The TAPESTRY research project explores how transformation may arise 'from below' in marginal environments with high levels of climatic uncertainty (droughts, floods and cyclones) in India and Bangladesh. The project seeks to build and study different forms of alliances between actors (local communities, NGOs, scientists and state agencies) that are seeking socially just and ecologically sound alternatives based on local people's plural understandings of what transformation entails. For instance, in the drought-prone regions of Kutch, civil society organisations and villagers are challenging dominant state paradigms regarding drylands and pastoralism, while also improving poor people's quality of life and enhancing biodiversity. Although these initiatives do not use the language of climate justice explicitly, they are implicitly about climate justice and distributional equity.

In Kutch, the research team is working with pastoral communities to preserve a distinct breed of 'swimming camels' (*kharai* camels). Mangroves are an integral part of the *kharai* diet, but they are being destroyed due to rapid industrialisation on the coast. Uncertain rainfall patterns are also affecting the livelihood opportunities for this pastoral community. Through a long process of dialogue with the NGO (Sahjeevan) and the Jat herders, the project team has decided to work on two initiatives: one, studying the mainstreaming of camel milk into the milk supply chain; and two, studying how NGOs are using the Forest Rights Act to claim mangrove islands.

At the outset, these initiatives are about the protection of livelihoods of marginal communities who are at the forefront of climatic uncertainties. In parallel, the project also aims to map whether these changes can have other spill-over effects such as equitable outcomes for women and youth. This also involves assessing the delicate power relationship between civil society organisations and diverse communities, begging the question who is imagining what, and for whom?

Source: **https://steps-centre.org/project/tapestry/**; Mehta and Srivastava (forthcoming)

Using social impact assessment to address the domination of different forms of knowledge: Karjalainen and Järvikoski (2010) argue that impact assessments can act as mediators providing a process through which different knowledge claims, values and interests can be linked to the proposed alternatives and interventions. By emphasising that fair procedures, generating unbiased, consistent and reliable decisions, are central to the legitimacy of environmental governance, they highlight the value of social impact assessments in procedural justice. While environmental impact assessments fall short as interests are not involved from the initial stage of the assessments, a social impact assessment can be crucial in conflict mediation. Rather than framing collaborative processes according to tight schedules and pre-defined plans, in which most assessment criteria and indicators are pre-selected before the participation starts, social impact assessments are constructed actively through the process of conflict, negotiation and reflection from different stakeholders (*ibid.*: 326). In this vein, in spaces where competing knowledge claims revolve around a particular project, a social impact assessment at the beginning (as well as during the course of the project) could offer an opportunity to negotiate different knowledges by including alternative voices in the decision-making processes.

Methodological innovation is required to understand and explain, document and capture instances of climate injustice and positive measures to uphold and advance climate justice. This builds on the point above about the need for research alliances and collaborations that are mutually beneficial, non-extractive and grounded in the realities of marginalised groups. It also places strong emphasis on questions of active and inclusive citizenship (Mohanty 2006) and robust systems of governance.

For example, Mehta and Srivastava (forthcoming) elucidate how they used photovoice (Ghosh, Bose and Sen 2019) to explore different understandings of climate change uncertainties in Kutch and how this method helped in revealing some of the blind-spots in climate policies and implementation. A photovoice[28] exercise was organised to understand the gendered experiences of uncertainty, focusing on the lives of women within the Jat herder community. In this context, photovoice played a transgressive role in two key ways. First, within the mainstream scholarship on pastoralism, women's role is under-represented and under-theorised. Hence, 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. Second, 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. Some examples include frequent trips to drying wells

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[28]   https://steps-centre.org/pathways-methods-vignettes/methods-vignettes-photovoice/.

in the summer, picking fodder leaves, milking buffaloes and washing the calves, and the role of faith and religion in coping with climatic uncertainties. Thus, through photovoice, they were able to tease out tacit and embedded forms of knowledge and experience that are often undervalued and overlooked by traditional forms of research and top-down policy processes. The visual stories also demonstrated how uncertainties at these local scales are further compounded by wider socioeconomic changes, such as industrialisation, along the coast. These interlinkages between resources, livelihoods and socioeconomic change are often bypassed in siloed mainstream policy processes, through departmental jurisdictions and policy programming.

Thus, the experiment with photovoice demonstrates that the use of such methods provides agency to local actors to frame problems in ways that are seen as relevant and appropriate to their knowledge and lived experiences. These embodied understandings can also facilitate dialogue with other stakeholders. For instance, women from the Indian Sundarbans used photovoice to make a representation of their demands to the Sundarbans Development Board in West Bengal (Ghosh, Bose and Sen 2019). Such experiments can challenge and reframe mainstream narratives, and can also open up possibilities for dialogue and communication among a range of actors. We also suggest the need to use research to inform the **development of useable toolkits for action that promote citizen literacy and engagement** with legal tools and policy processes that can be used to contest and prevent climate injustices. For example, around the 'good governance' of the Clean Development Mechanism (CDM) carbon market and GCF projects, Transparency International, CIEL and Carbon Market Watch have developed tools to raise awareness about how to lodge complaints with the CDM Executive Board where rights violations have taken place or prior and informed consent not provided.[29] It may make sense for IDRC to work with civil society organisations working locally across different regions of the global South to produce these sorts of toolkits and guides to action. Given the importance of accessibility and co-production, formats such as videos may be a useful and effective way of reaching broader communities of affected stakeholders. The importance of safeguards in projects will only grow as carbon trading takes off again supported by Article 6 of the Paris Agreement.

More comparative Southern-led research about the enabling conditions for the pursuit of climate justice would be useful. Which combinations of citizen action, litigation, normative frameworks, state policy and business initiatives work in different contexts? In other words, building on case studies of seemingly successful interventions to minimise climate impacts or resist damaging projects,

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[29] www.transparency.org/files/content/activity/2015_BriefingGCFComplaintMechanisms.pdf https://carbonmarketwatch.org/wp-content/uploads/2015/10/Open-letter-to-implement-UN-obligations-to-respect-human-rights_final_09102015.pdf; https://carbonmarketwatch.org/wp-content/uploads/2018/12/CIEL-CMW-Joint-Note-on-Article-6.pdf.

what can be learned about factors of success that might be repeated and supported elsewhere? This might imply the development of typologies of approaches to climate justice tailored to different regional circumstances depending on the power and nature of the state, the characteristics of the legal system (formal and informal), and the degree of democratic space in which civil society can operate. Existing tools[30] including the 'power cube' can be useful in this regard for mapping different types of power relations across different spaces and levels.[31] This helps to clarify potential points of intervention and could be applied to climate justice. There are a number of NGOs and social movements that are developing useful analysis of critical intervention points and theories of change grounded in different contexts. Examples include Oxfam,[32] as well as work colleagues at IDS who have been involved in practical guides to facilitating social change[33] and enhancing accountability in fragile contexts.[34] We are also currently doing some work with Stand Earth in Canada on developing a comparative template for regional 'power mapping' studies of potential intervention points in advancing climate justice through stronger 'supply-side' climate policy measures. This type of political economy analysis can usefully map the obstacles to change, as well as potential change coalitions.[35] In this sense work of this nature can and should go beyond power mapping and research tools, toward relationship-building, coalition-building and peer-learning about comparable contexts for people on the front lines of addressing climate injustices.

Advocacy with other funders: IDRC and other donors have an important role to play in funding research and advocacy on climate change and acting as global nodal points to disseminate and share key findings, lessons and toolkits to other communities in support of alternative approaches to climate justice. Fellow travellers such as the AJWS, for example, have made explicit their aim, by 2027, 'to influence funders and policy makers to more vigorously support energy and food production alternatives – promoted by grass-roots movements and marginalised communities – that respect human rights principles and shift us away from an extractive model of economic development' (AJWS 2020). Among those funders mentioned are the Environmental Grantmakers Association and the Climate and Energy Funders Group, and key policymakers. The aim is to persuade them to: a) invest more resources in supporting grass-roots

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[30] There are many resources available on how to think systematically about different Theories of Change. See for example,
www.theoryofchange.nl/sites/default/files/resource/hivos_toc_guidelines_final_nov_2015.pdf.

[31] **www.powercube.net/analyse-power/what-is-the-powercube/**.

[32] **www.theoryofchange.nl/sites/default/files/resource/hivos_toc_guidelines_final_nov_2015.pdf**.

[33] **www.carnegieuktrust.org.uk/publications/power-a-practical-guide-for-facilitating-social-change/**.

[34] **www.ids.ac.uk/programme-and-centre/action-for-empowerment-and-accountability-a4ea/**.

[35] Governments are also engaging with political economy analysis to understand development interventions. **www.gov.uk/government/publications/the-beginners-guide-to-political-economy-analysis-pea**. DFID in the UK previously also worked within a 'drivers of change' framework.

organisations and social movements; and b) encourage them to support research, analysis and potential solutions to climate change that respect human rights, target those most affected, and address the root causes of the problem.

5.2 Potential focus for Southern-led climate justice research and IDRC programming

Given the timeliness of these issues, it is unsurprising that other donors and funders have sought to identify new areas of research on climate justice. For example, a funders' roundtable in September 2017 brought together a number of philanthropic organisations (Climate Justice Resilience Fund (CJRF), Oak Foundation, Mary Robinson Foundation, Rockefeller Philanthropy Advisors) to discuss climate justice, focused on the implications of this for their current and future work, and to explore opportunities to collaborate in support of rights-based, community-driven activities to address climate change. The roundtable discussion highlighted the following as key climate justice themes and areas for future collaboration, something that IDRC could potentially build upon in the ways noted below (taken from Climate Justice Resilience Fund *et al*. 2017: 5–6):

– ***Human rights and clean energy*:** Given the early stage of the clean energy industry and its exponential growth, there is a tremendous opportunity to develop safeguards and good practices now. In light of our analysis of experience to date around lithium and cobalt mining, for example, and review of emerging literatures in this area above, we would endorse this call.

– ***Land and resource rights*:** Secure community land and resource rights are critical to resilience against the effects of climate change on land and ecosystems. Funders could see points of convergence between their work and a rights-oriented, climate justice approach. The research we reviewed above on forests and agriculture, in relation to climate-smart agriculture for example, suggests this is a vital area for future research.

– ***Gender issues and women's leadership*:** Funders agreed that there are opportunities to collaborate more intentionally on climate and gender from the local to the global level. Based on the review above, we have suggested a number of entry points for this around gendered vulnerabilities to the effects of climate change through to gendered analysis of supply chains in high- and low-carbon economies.

– ***Climate finance*:** Large-scale funding for climate action has begun to flow, but it does not yet reach the scale of the problem. Bringing a climate justice lens to this finance would ensure additional finance is committed and deployed, and that it supports grass roots-led solutions. Our discussion about the procedural justice dimensions that pertain to global institutions overseeing climate finance is pertinent in this regard. Research which identifies and

explores the ways in which more public finance could be used to support sub-national actors such as community-based organisations of indigenous peoples, smallholder farmers, and women to advance their solutions for adapting to, and mitigating climate change and advancing climate justice, could be very valuable.

– **_Climate-forced displacement_**: Some funders have begun to consider how to ensure protection of the rights of those forced by climate change to move from their homes. This is a serious and sensitive climate justice issue with a lot of work on the horizon. This suggestion resonates with work we reviewed on disaster risk reduction and climate conflict (about which more below). There is a need for a cautious and sensitive approach here recognising both the role of voluntary migration in the global South, and the fact that the decisions to migrate or not are made in the context of multiple simultaneous stressors, of which climate is often just one. Rather like work on climate change and conflict, climate may multiply and exacerbate the drivers of migration without necessarily being the primary driver in many contexts. Understanding the drivers and dynamics of displacement in greater detail will help us to better understand these challenges.

– **_Voice, empowerment, and storytelling_**: The speakers clearly articulated the value of this kind of support, and many funders focus on this as a priority or as one programmatic area. This recommendation relates strongly to what we propose above about co-produced and participatory approaches to climate justice research and advocacy.

In the following, we outline some of our own ideas based on the preceding review, including inputs from scholars and development workers.[36]

5.2.1 Governance for climate justice

Climate justice law centres and clinics

There is a long tradition of law clinics in the environmental justice field. These have been used not only in formal systems but also for traditional or indigenous systems. Examples include the legal empowerment and community paralegal network of Namati;[37] and Natural Justice[38] in Africa. We have also seen litigation over climate impacts that contest infrastructural projects that go against climate and environmental commitments (by groups such as Client Earth). Going forward, there is clearly more work to do. So, funding and building a network of researchers and practitioners working at the frontier of legal innovations for accountability, justice and redress in relation to climate change could make a

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[36]   See Acknowledgements.
[37]   **https://namati.org/**; **https://namati.org/what-we-do/grassroots-legal-empowerment/paralegals/**.
[38]   **https://naturaljustice.org/**.

real difference. This could deal with site- and context-specific legal struggles as well as issues within the UNFCCC around loss and damage. It might make strategic sense to align with AJWS and other organisations that are providing financial support to communities on the front line of seeking to defend their land or water rights (AJWS 2020).

One approach might involve the generation of legal resources for improving citizen legal literacy around rights and procedures that already exist that can be used in the climate domain, something activist organisations often request. Working with organisations like the Foundation for International Environmental Law and Development (FIELD) or the IBA **Climate Change Network**, **Earth Rights International** or the **'Climate Justice programme'** and **Namati** might open up opportunities in this regard. These might include 'how to' guides around rights of access to information, participation, consultation and representation. Bespoke guides for activists and practitioners in key country settings would be invaluable to assisting the work of environmental defenders to use existing institutional spaces and means of redress, and to push for strengthened arrangements. More ambitiously, research could be supported looking at the role for new and hybrid legal frameworks which incorporate and protect these rights, building on precedents such as the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters.[39]

Strengthening and deepening democracy for climate change
Much of the existing literature points to a series of shortcomings in current democratic practice around short-termism, privileged access for business actors, poorly functioning electoral/democratic processes, alongside more traditional concerns with good governance (e.g. corruption, lack of participation and accountability) (Transparency International 2011). A variety of innovations have been proposed from ombudspeople for future generations (as exist in Wales, Israel and Hungary for example), to lowering the voting age to 16 to independent climate change committees that hold successive governments to account for their climate commitments (thus avoiding the strategy of passing costs and responsibility onto future governments). Others are interested in deepening democracy through citizen assemblies, by means of enhancing the voice of future generations (such as ombudspeople for future generations), or with stronger measures to regulate conflicts of interest between politicians and businesses in the fossil fuel sector around party funding and secondments to government, for example (Newell and Martin 2020). Some comparative work looking at opportunities for deepening and strengthening democracy for climate justice in different contexts would fill an important gap. This work could be developed in conjunction with organisations such as the **Foundation for**

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[39]   **www.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf**.

Democracy and Sustainable Development or the **World Future Council** that have both been active in this area.

A strong element of this is the relationship between rights accountability and justice. One colleague from Africa suggested REDD+ projects in Africa were ripe for further research in this regard, paying particular attention to strong gender dimensions. More broadly, it was suggested that most national green transition programmes in Africa are not sensitive to the justice dimensions of their programme. The Great Dam in Ethiopia was given as an example. Tools and procedures for access to climate justice will take different forms in different parts of the world depending on the nature of the democracy, the strength of civil society and the existence or not of a free media for freedom of expression. It will be important to analyse and research these issues across projects and sectors to gain an understanding of national-level challenges and how to address them.

An important component of this work would have to address the fact that in many parts of the world democracy is either poorly functioning or non-existent, but climate injustices are no less prevalent. A strand of research on pursuing climate justice in authoritarian settings could usefully explore the informal, non-state strategies that might have to be adopted to generate change, building on existing work on 'authoritarian environmentalism' (Gilley 2012).

Climate justice beyond the state
Thinking more clearly, systematically and strategically about who bears rights and responsibilities, and for what in the climate arena, in ways that go beyond the state, is clearly vital. A cosmopolitan agenda for climate justice critiques states as exclusive holders of climate-related responsibility and vehicles for climate justice. Individuals and other non-state actors are also responsible and able to contribute to realising climate justice, as is recognised both by the UNFCCC in its **Global Climate Action** zone and a growing body of scholarship on transnational climate change governance (Bulkeley *et al.* 2012).

Some businesses are seeking to align their corporate strategies with a 1.5°C trajectory using **science-based targets** and, as noted above, there is increasing interest in climate litigation. But from debates about responsibilities and duties for mitigation and adaptation, to ongoing discussions about loss and damage, there is an urgent need to think through the practical implications of pursuing and applying ideas about climate justice to corporations, communities, civil society and possibly even individuals, when lines of authority and responsibility can be individualised.

As discussed above, corporations are increasingly having to address the human rights implications of their work and climate change is an obvious extension of this. There is some important convening work to do on facilitating 'first mover' coalitions of business actors that have done some 'climate justice' profiling of

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their current and future operations, not just in response to short-term shareholder demands or civil society protests, but as part of a reappraisal of their business model in a warming world. Building such 'coalitions of the willing' and researching and exchanging case studies of best practice will have to occur alongside investigations into what other models might be required to tackle business laggards and those not willing to move first. There is a danger in such research that by showcasing leaders, you let other actors off the hook.

Legal and regulatory approaches will also be necessary. In 2014 the United Nations Human Rights Council adopted Resolution 26/9 which established a new Intergovernmental Working Group (IGWG) to develop an international legally binding instrument to regulate transnational corporations and other companies with respect to human rights. In 2016, the UN started negotiations on a draft text with elements for the Treaty at the 3rd session of the IGWG. With a greater focus on climate change, there may also be renewed interest in non-legal accountability processes such as **Permanent Peoples' Tribunals** on the conduct of Transnational Corporations (TNCs) in general, as well as around specific issues such as water.

One aspect here is duties for the provision of climate justice beyond borders. For example, we came across a research project in Australia called 'A Just Climate Transition and global duties'.[40] For the most part, discussion of a climate transition in developed countries concerns domestic emissions reduction. However, given that most developed countries have high levels of aggregate emissions and/or historical emissions, their transition ought also to address the harms that those countries have caused beyond their own borders. For example, given that the emissions from countries such as Australia (and this could apply to any number of OECD countries) have contributed to harming others, should Australia direct some of its efforts and resources towards the climate transitions of other countries? Or should it focus on making its own reductions as significant as possible? If Australia were to further reduce its domestic emissions this would lessen the burden on other countries to cut their emissions. This might allow other countries to make a smoother climate transition.

But a more important reason to think that Australia ought to focus on assisting other countries to transition pertains to the distribution of benefits. Transitioning in Australia will reduce emissions, but it will also deliver benefits – cleaner environment and so on – to Australia and not to those countries that have been harmed. The project provides a framework to balance the obligations of domestic and global dimensions of transitions. For example, how are CBDR-RC principles being applied to emissions cuts affecting the global South? (Can strategies such

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[40] The project has initial funding from the Australian Research Council Discovery Grant programme with partners from the Australian National University, Oxford and Adelaide and the University of New South Wales.

as Ecuador's Yasuni 'leave oil in the soil' initiative be supported through climate debt payments, for example, which offer an alternative to fossil fuel extraction in poor countries?) What are appropriate payment mechanisms for climate debt, to strengthen climate justice advocacy and avoid empowering Southern elites? This relates to exploring novel approaches to tackling climate debt.

Support to researchers exploring and modelling different policy options and strategies for addressing these complex issues of responsibility and duty would be very valuable. Informed by engagement with different philosophical traditions, the work could usefully 'proof' the political acceptability and implications of different approaches, providing a 'safe space' for policymakers, academics and others to share ideas that might then be fed into the climate negotiations via side-events and policy reports. An interesting and potentially relevant example of this type of work might be the Climate Equity Reference Project of the **Eco Equity institute**.[41] IDRC could potentially partner with an organisation like this to make sure Southern voices and perspectives are adequately represented.

Climate, conflict and migration

There is already a large body of work on climate change and conflict, much of which contests the role of climate change as a driver or threat multiplier of conflicts over land and water, for example (Selby 2014). Given the discussion above, it is also possible to see how conflicts over remaining fossil fuel reserves, water resources, minerals for renewable technologies and carbon markets projects may intensify as ambition around mitigation intensifies and scarcity is enforced upon access to certain resources. There is a real need for more Southern-driven and context-specific accounts of potential scenarios and their contexts. Too often conflicts are presented as inevitable and read from the perspective of scenarios and assumptions that are not subject to sufficient critical scrutiny, nor adequately checked against lived realities on the ground. Without such Southern-led research and policy-facing interventions, there are dangers that poorer populations in areas exposed to climate change may be forcibly removed or displaced under the guise of climate security and conflict prevention.[42]

One Nigerian scholar we contacted as part of this research confirmed that there is a real need for further research on how climate change impacts and climate injustice could lead to conflict and violence. He said, 'In Nigeria for example,

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[41]   The Climate Equity Reference Project (CERP) is a long-term initiative designed to provide scholarship, tools, and analysis to advance global climate equity – as a value in itself and as a realist path towards an ambitious global climate regime. The CERP is strongly rooted in current climate science, in particular the IPCC's estimates of the remaining global carbon budget. It is also consistent with the UN Framework Convention's core equity principles, which can be concisely stated as 'a precautionary approach to adequacy', 'common but differentiated responsibilities and respective capabilities', and 'equitable access to sustainable development'.

[42]   **https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_ committee/application/pdf/ds_bangladesh_report.pdf**

there are strong indications that climate impact manifested in the shrinking of Lake Chad has contributed to conflict between Northern cattle herdsmen and farming communities in the South but this has not been explored empirically'.[43]

An innovative research programme in this area could look at how responses to conflict situations through cooperation, sharing of resources and new governance mechanisms could be designed in such a way to address climate injustices and embed more just outcomes. This would go beyond the limiting debates about how far climate change is a 'primary driver' or a 'threat multiplier' for conflict, migration or displacement, and would include work on which narratives and framings would support more proactive approaches from political leaders, involving citizens in the process (McGray 2020, pers.comm). For example, building on our discussion above, this might involve greater representation of younger people or indirect representation of future generations in joint water management authorities to climate-proof conflict responses in more socially just ways within and across generations.

A related area here is the role of the military as both a key contributor to climate change[44] and therefore a required target for more ambitious climate action, as well as an actor seeking to carve out a role for itself in disaster management (Buxton and Hayes 2016) and protection of carbon sinks such as forests. Existing work in related areas (Büscher and Fletcher 2015; Duffy 2016) foresees strong possibilities that this could lead to new dispossessions and enclosures and the use of violence against poorer and marginalised people in particular: exacerbating some of the situations that climate justice activists have pointed to in relation to carbon trading (Bachram 2004). Further work on accountability mechanisms that might be required to hold states to account for the actions of militaries in this domain would be valuable.

5.2.2 Inclusive climate justice

New alliances for climate justice

New international alliances among disparate actors and social movements will be required to deliver more transformative versions of climate justice, as this report has called for. As Patrick Bond puts it: 'what solidaristic alliances are emerging between global South activists (including, for example, Dakota indigenous people fighting a pipeline) and better-resourced Northern activists, especially new actors in climate activism such as youth, Extinction Rebellion, etc.?'[45] Our evidence shows that bottom-up change or mobilisation usually meets with the impediment of scaling up. Horizontal South–South alliances may provide

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[43]   Personal communication with Chuks Okererke as part of the research for this study.

[44]   The US military alone uses more oil than any other institution in the world (Union of Concerned Scientists, 2017).

[45]   Personal communication with Patrick Bond as part of the research for this report.

opportunities for solidarity across policy and practice communities that have shared climate concerns, for example, deltaic Sundarbans across India and Bangladesh. More research and support are required to facilitate the development of such alliances that share common climate challenges. Research could focus on case studies of effective climate justice campaigns aimed at identifying key enabling conditions and assessing the extent to which they might be replicable or generalisable to other contexts. How do transnational campaigns navigate resource inequalities and unequal representation? How do they allocate and create effective divisions of labour, as well as guard against the misrepresentation of one another's struggles? For example, contemporary struggles over oil bring into loose alliance indigenous activists contesting land rights, trade unions raising concerns about employment, health activists about the health effects of flaring, and environmentalists concerned about local environmental degradation and global climate change. Beyond opposition, articulating common demands for alternatives, desirable regulation and safeguards or compensation presents a huge challenge across diverse political cultures and strategies, organisational structures, and where sharp resource inequalities are present. Though climate justice increasingly serves as a meta-frame for advocacy, some of these tensions need to be acknowledged and addressed if such multi-actor coalitions are to thrive.

Social movements and climate justice
Given the limited effectiveness of responses to the climate crisis to date, we can expect a continuation of recent trends towards citizen mobilisations around climate change. Combined with frustration at the lack of leadership from older generations (as characterises the youth strike 4 climate movement), protests at ineffective action in the face of climate impacts as a result of extreme weather events (as seen in Australia and elsewhere) and aimed at disrupting business as usual through direct action (by groups such as Extinction Rebellion and Greenpeace) seem set to escalate. Many movements in this space are linking together, given the common sets of concerns they seek to address (as we described in Section 3 above), but what form will they take and what impact will they have across different parts of the global South?

We have described above strong traditions of indigenous activism in Latin America, tribal activism in India and parts of Africa, and the important role of environmental defenders the world over. But under what conditions might climate justice concerns be the basis for broader social mobilisations that cut across regional, class, race and gender divides? Are there spaces and places in which this is already happening? If so, how can this activism be supported through engagement activities, research and toolkits for advocacy, legal activism and the like?

Vernacular climate justice

A fertile area of work would be comparative studies on the meanings and practices of climate justice. This will be useful in understanding which framings resonate in which contexts. As the review above shows, in some contexts intergenerational framings resonate easily (with indigenous communities, for example or with religious communities), or justice for nature ideas, building on ideas such as Buen Vivir[46] and calls for rights to nature, while in other more instrumental or anthropocentric framings are more likely to gain traction (just transition or climate compatible development). Elsewhere, in societies with sharp inequalities in contribution to climate change and exposure to its effects, for example, intra-society framings resonate much more (such as in India in light of the *Hiding Behind the Poor* report discussed above). Advancing understandings and practices of climate justice requires greater attention to where the leverage and traction points are across societies and across different social groups.

For example, Bailey (2019) shows how advocates of stronger mitigation policy frequently emphasise broader-scale concerns about the responsibility of wealthier states to take action. In contrast, those who want to obstruct or dilute climate policy initiatives often stress national welfare, inaction by other states or local justice concerns. The effectiveness of those groups who oppose robust climate policies by constructing spatially and socially recognisable discourses about the injustices of climate action has created major obstacles to climate-protecting policies. It has also undermined the influence of climate justice on political agendas. To increase the likelihood of realising climate justice, greater attention should be given to representing justice arguments in spatially imaginative ways. Methodologically, this might involve focus groups and community work in exploring responses to different framings of climate justice (as outlined above) and working with groups such as **Climate Outreach** and their equivalents that have experience of doing this type of work.

Discussions about environmental citizenship may also be fruitfully extended to debates about climate justice and the need for behavioural change, especially among elites in high-emitting social groups and societies as emphasised in the last IPCC SR15 report and other recent research (Kenner 2019). There is a clear need for broad-based social dialogues, informed by justice concerns, about how best – and most equitably – to bring about the shifts in lifestyles that will be necessary to keep warming below 1.5°C. This takes place amid discussions about carbon allowances, rationing, frequent flyer taxes etc. to redress climate inequalities and injustices of one sort or another. What does a *social contract for climate citizenship* look like in different societies? Research exploring these issues, building on work on sustainable consumption corridors[47] and the work of

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46 See Gudynas & Acosta (2008).

47 **https://scorai.org/sustainable-consumption-corridors/**.

the **Institute of Global Environmental Strategies** (IGES 2019) in Japan might be a useful starting point for drawing out the justice dimensions and assumptions built into these approaches.

A gendered analysis of climate change impacts and responses
As outlined above, there is a large body of literature that examines the role of women within climate change discourses and impacts. Our review has highlighted how resource extraction, grabs and other forms of environmental injustices put women at the risk of violence, harassment and livelihood insecurities. However, as pointed out earlier, more research is required to examine the intersectional effects of climate change adaptation as well as mitigation. There are clear pitfalls, for example, in promoting women's and girls' capacities without considering the structural (and cultural) barriers to their participation, but some see climate change also as a potential catalyst for changes to patriarchal structures. Gender justice forms an integral part of the transformative climate justice lens, especially when linked to structural drivers of patriarchy that shape resource access and distribution and the functioning of the 'invisible' care economy. Research thus far has focused on the role and impacts on women (largely considered to be the equivalent of doing gender research), and there is limited work on justice aspects pertaining to the LGBTQI community. Research might focus on what conditions make positive changes possible, and on what risks we need to be aware of (McGray 2020, pers.comm.). Nuanced gendered analysis that cuts across the axes of social differentiation is required to assess low-carbon pathways at the global and local levels to understand the costs and of these transitions. This may include more research on intra-household carbon footprints, energy poverty and burdens or value chain analysis of global supply chains.

A useful starting point building on emerging analysis of higher level policy (Collins 2017) and generic toolkits[48] would be to look at sectors and supply chains where women workers are particularly concentrated, such as agriculture. The aim would be to try to understand who benefits and how from interventions whose aim is to advance climate-smart agriculture, and how these framings disrupt or reproduce practices in the personal sphere and the care economy. For example, in our work on 'transformation from below'[49] in Kutch (India) where we focus on revival of dryland systems (through the mainstreaming of camel milk production), we are also asking whether its revival in the context of climate change also means increased burdens on women because they are the primary water bearers in these pastoral communities. Thus a nuanced analysis of initiatives from the perspective of climate justice – alert to its distributional and procedural elements – would help to understand the politics and trade-offs in

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[48]   www.fao.org/3/a-i5546e.pdf.
[49]   https://steps-centre.org/project/tapestry/.

gender terms to square increased productivity with increased mitigation and improved resilience.

Building inclusive climate knowledge

Entry points for engaging with climate justice are rarely elite science, so what types of climate knowledge help people to engage with issues of climate justice? There is scope here for comparative work building on areas such as traditions of citizen climate science (Fischer 2002; Panda 2016; Vedwan and Rhoades 2001), indigenous environmentalism (Carruthers 1996), and alternative cosmologies. Engagement with diverse systems of knowledge and value can improve modelling and open up ways to communicate more effectively with communities often on the front line of climate injustices (Mehta *et al.* 2019). We have seen the emergence of new approaches, such as robust decision-making, that recognise diverse perceptions and responses to uncertainty (e.g. Ranger and Garbett-Shiels 2011) and emphasise the importance of more bottom-up methods of climate assessment and adaptation (Conway *et al*. 2019). Participatory and visual methodologies such as photovoice and story-telling can also be used to bridge the different forms of expert and lay knowledges (Mehta *et al.* 2019). This would provide an important and much needed complement to the work of the IPCC, UNEP and other bodies.

Besides bringing in a diversity of voices into the process of knowledge production, it is important to interrogate and challenge the assumptions built into models and metrics that are widely used to inform climate policy from the point of view of climate justice. For example, some of the work of IPCC Working Group III was challenged by groups such as the Global Commons Institute around its use of cost-benefit analysis to assess preferred mitigation pathways. Based on a 'willingness to pay' approach common to such economistic analyses, activist decried the fact it implicitly valued the lives of poorer groups in the frontline of climate change far less as they have a reduced ability to pay and express their preferences through the vehicle of the market. This was denounced strongly at the time as tantamount to 'the economics of genocide' (Newell 2000).

As well as building experiential knowledge of climate impacts, vulnerability assessments and envisioning exercises of alternative food and energy futures in a context of climate change, there is also scope to map more effectively carbon inequality. There are a lot of data and evidence required on desegregating responsibility in a more effective, nuanced and rounded way (intra-household analysis or gendered analysis). Kenner's (2019) analysis shows how measures of direct emissions profiles can be combined with indirect contributions through shares in companies and investments and through political influence to gain a sense of, in his terms, 'the role of the richest in climate change'. This will be crucial as measures to constrain carbon (hopefully) become more ambitious and justifications for interventions that are targeted, fair and effective become more

pressing. For example, around flying or car use among richer segments of societies in both the global North and South, approaches which target frequent flyers or families with several cars are more likely to be politically palatable and socially acceptable than blanket policy interventions. Previous experiences of rationing in the Second World War, for example, suggest sacrifices for a broader social good are only accepted when there is a strong perception of fairness and everyone pulling their weight (Simms 2013). We noted above the sensitivity around this issue in India in relation to the *Hiding behind the Poor* report (Ananthapadmanabhan, Srinivas and Gopal 2007). We can fully expect that high carbon-consuming classes in all parts of the world, including least developed countries, will resist measures which seek to reduce their consumption, therefore research assessing which framings and policy measures are most likely to gain traction would be very useful.

5.2.3 Deepening climate justice

Just transition pathways

There is a need for more research which follows low-carbon pathways along the supply chain, paying attention to social and labour conditions and environmental impacts, and how best to manage them to address the need for a just transition. Though the energy sector is understandably getting a lot of the attention, and to a lesser degree the transport sector (because of biofuels and increasing focus on aviation), there is important work to do across all sectors. This includes sectors which most directly impact upon the livelihoods of the poorest, such as water, food and agriculture.

In the context of growing recognition of the importance of ensuring that low-carbon transitions are attentive to justice issues (as noted above), there is a pressing need to innovate participatory scenario-building exercises about climate futures. Working with the modelling community around different energy, transport, food and other futures would help to develop tools and procedures for integrating climate justice concerns into planning for different climate futures. This would involve developing and refining more participatory tools for the deliberative development of scenarios for change, driven by citizen's own values, concerns and priorities. To be challenging and innovative, this would have to involve artists and cultural industries[50] as well as skilled facilitators to help people visualise different futures and appreciate the tensions, trade-offs and opportunities that will attend any attempt to move towards them. Such methodological innovations in modelling and envisioning exercises help us to move from 'what is' to 'what if' scenarios (Hopkins 2019).

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[50] Examples of groups doing this work include Julie's Bicycle and METIS arts.

One interesting example we were referred to comes from Australia. The primary purpose of the project is that it will deliver a social justice framework for how the communities can satisfy all of their own energy needs and achieve zero emissions in a way that also has social justice benefits. It aims to develop a masterplan for the implementation of a zero net emissions climate transition that combines the best mitigation options with a focus on social justice. The project will: (i) provide a framework for evaluating the social justice impacts of transition; (ii) analyse the most appropriate infrastructure/technologies for a regional climate transition; (iii) inform and engage energy consumers; (iv) establish a Just Transition Commission; (v) provide a community emissions profile and mapping tool; (vi) engage with a local and public audience; (vii) build leadership capacity; (viii) partner with leading global and local renewable energy partners; and (ix) provide an in-depth study of three key regions.[51]

There is clearly a need for more Southern-based research on what just transitions might look like across different contexts (regions and sectors), taking into account different industrial bases and uneven state capacity and the diverse role of business, trade unions and civil society actors. Working closely with the United Nations Research Institute for Social Development (UNRISD) and the **Just Transition Research Collaborative** (see below) might provide a useful entry point for this work. The need for this work is heightened amid calls for a **'just recovery'** from the Covid-19 pandemic in which climate justice principles will have to play a guiding role.

Climate justice through supply-side climate policy
There is growing activist interest in this area, but as yet few research projects analysing the possibilities and challenges of developing supply-side international law to develop a global legal framework for equitably agreeing how to leave remaining reserves of fossil fuels in the ground. Supply-side here refers to measures to limit the production and extraction of fossil fuels rather than seeking merely to regulate the emissions that result from them (Ericksen Lazarus and Piggot 2018). Such ideas have been discussed in relation to a Fossil Fuel Non Proliferation Treaty (Newell and Simms 2019) and other supply-side measures (Green and Dennis 2018; Piggot *et al.* 2018). However, more systematic analysis is critically required of how to build on the efforts of those countries forming part of an emerging 'first mover' alliance of countries agreeing to leave some of their fossil fuel reserves in the ground (such as Belize, Costa Rica,

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[51]   The project partners have completed two extensive pilot studies of zero net emissions blueprints. The first in Uralla (New South Wales) in 2015 and the second in Hepburn Shire (Victoria) in 2019. This preparation involved extensive community consultation and means the project is ideally placed to prepare this ambitious blueprint. The project will also integrate local knowledge with the best available international expertise through a partnership with the Samso Energy Academy (Denmark) and leading climate transition scholars in Europe (Oxford, King's College London) ensuring the Victorian Climate Transition Masterplans are comprehensive and world class. As such, the project will be the most comprehensive climate transition project to date in Australia. See: **https://z-net.org.au/hepburn/**.

France, New Zealand) or building on the 'Powering Past Coal Coalition'. Without attention to supply-side policy, which is not even mentioned in the Paris Agreement, there can be no climate justice as the costs and impacts associated with climate impacts magnify.

There was increasing attention to such measures at the COP in Madrid, suggesting that the time is ripe for such analysis (Newell and Taylor 2020). As some commentators noted,

> for the first time in the United Nations space you can say the f-words in polite company. We're of course talking about fossil fuels. The 2015 Paris Climate Agreement ran 16 pages, but didn't mention the words 'fossil fuels' 'coal,' 'oil,' or 'gas' once. That's a striking omission considering the central role that fossil fuels play in contributing to the climate crisis.
> (Abreu and Henn 2019)

In addition to the moves mentioned above, California, the third-largest oil-producing state in the US, blocked new fracking pending further scientific review. Leading Democratic candidates for President have also put forward plans to ban fracking and stop coal, oil and gas production on public lands. The wave of divestment from fossil fuels also grows ever bigger. On 9 December 2019, the $24 billion Norwegian insurance giant Storebrand divested from fossil fuels, joining more than 1,000 institutions worth more than $17 trillion who have made some form of fossil fuel divestment commitment; in the same month the Swiss parliament announced it would be looking at divesting the $800 billion Swiss National Bank. The European Investment Bank announced that it will cease all fossil fuel financing including gas from 2022 onwards.

This work can and should explicitly integrate climate justice concerns. Adopting supply-side measures has the potential to make a climate transition significantly more just and effective. Supply-side policies can be characterised either as restrictive – constraining or preventing supply in some way (production taxes/quotas) – or as supportive (provision of renewable energy/feed in tariffs). Jeremy Moss (2018b) has argued that, especially in respect of fossil fuel exports, supply-side measures have four distinct moral advantages: they target the right agents, allow us to rank our responses, deal with the problem of fossil fuel exports and may deliver an egalitarian dividend. A supply-side approach also offers an effective focus for climate movements and new forms of governance that are both morally justified and offer potential economic and political advantages for climate policy. There is now a window of opportunity to advance such an approach. The dramatic drop in the price of oil in recent months amid plummeting demand as aeroplanes are grounded and car use dramatically decreases following policy responses to Covid-19 has significantly damaged the prospects of some oil companies. As they plea for state bail-outs there may be

an opportunity to retrain workers and reinvest in lower-carbon sectors rather than seek to further sustain sectors whose production projections are incompatible with the goals of the Paris Agreement (SEI *et al.* 2019).

Funded research exploring supply-side options in developing countries would help to advance this critical new area of enquiry. This could explore the technical and political feasibility of such options and anticipated emissions savings (in ways which enable them to be included in those countries' NDCs) as well as analysis of possible coalitions of 'first movers' taking a lead on moratoria and other restrictions on new fossil fuel exploration. IDRC could support groups such as the **Global Gas and Oil Network** or **Stand Earth** and others in working with academics to research different models of supply-side policies including, but not restricted to, a **Fossil Fuel Non-Proliferation Treaty** which climate justice leaders such as Mary Robinson called for at the UN Security Council in January 2020.[52] Other research might investigate the political enabling conditions for bold first moves by some countries to use bans and moratoria to leave fossil fuels in the ground. For instance, what can we learn from commitments from Belize, Costa Rica, New Zealand and France not to exploit reserves of oil and other fossil fuels? Are there lessons for other countries that will need to do the same if the goals of the Paris Agreement are to be achieved? How can global obligations to keep fossil fuels in the ground be fairly and equally shared to reflect different historical responsibilities and current levels of poverty and the uneven capacity of countries to move away from fossil fuel pathways? What might coalitions of first-mover states look like, building on the example of the Powering Past Coal Alliance?[53]

Just responses to climate-related disasters

Given that climate-related disasters can be expected to become the 'new normal' whatever else happens on the mitigation side, mainstreaming justice concerns into climate disaster relief efforts will be vital. Research on what has worked well and less well, and what might be learned from related crises to help inform concrete strategies required in the face of climate change would be very welcome. This might include work which looks at whether it is necessary to develop new institutions and frameworks for recognising the rights of climate refugees and the duties of those that ought to help them; or at claims that climate change is a humanitarian crime (O'Doherty 2019) – in other words, viewing the actions that cause climate change as intentionally violating the human rights of millions of people would mean that they are crimes against humanity.

Another area ripe for further investigation is the financialisation of responses to climate change. From crop insurance to weather derivatives and catastrophe bonds, there are now a number of initiatives aimed at creating financial

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[52]   **www.theelders.org/news/multilateral-solutions-are-vital-tackling-global-challenges-we-face**.
[53]   **https://poweringpastcoal.org/**.

opportunities out of markets for adaptation and resilience (Isakson 2015). Indeed, insurance programmes have become a rare site of consensus as an avenue for delivering finance, in part because of a preference for insurance-based approaches among G7 governments. These include sovereign risk transfer facilities, such as the CCRIF (the Caribbean Catastrophe Risk Insurance Facility), which mixes parametric insurance and regional risk-pooling across governments, and the InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions, seen as a key avenue for scaling and delivering finance.[54] Supporters contend that initiatives such as sovereign risk transfer can help countries to manage their exposure to climate extremes and disasters by spreading the risk over a long period of time and pooling risk within regions. Moreover, it is argued that the process of generating an insurance product can be useful in identifying areas of climate risk, while localised pricing structures can signal areas of unsustainable development – for example, where properties in risk areas become too expensive to insure (Jarzabkowski *et al*. 2019).

In practice though, there is so far very limited evidence that insurance schemes incentivise risk and vulnerability reduction in developing countries. There are a number of serious limitations to insurance-based approaches, in particular, the costs of premiums in the face of escalating severity and frequency of extreme events. Insurance has always been an expensive climate risk management intervention, more so than either credit or savings schemes, while the level of pay-out is inherently constrained by the premiums that countries or donors can afford (Newell and Taylor 2020). Can systems such as CCRIF be usefully scaled up, from what is effectively a small-scale fiscal resilience system for governments, to a climate risk management system? Or should we instead be looking to grant and aid-based approaches, or alternatives such as regional solidarity funds? Further research on particular instruments and their ability to enhance climate justice for poor and vulnerable communities would be very useful indeed.

Climate justice for nature
We started writing this study at a time when bush fires of an unprecedented scale and intensity were devastating Australia. Some estimates suggest that billions of animals were killed. We finish it in the context of the Covid-19 pandemic: a zoonotic disease the like of which we can expect to see more of, as humans encroach on the habits of species and the likelihood increases that viruses can move from animals to humans. Though most of the research we have reviewed here understandably focuses on the needs and experiences of humans, in many ways an overly anthropocentric perspective about the supreme

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[54] The InsuResilience partnership was launched in 2017 by the G7 countries to provide climate risk insurance for 400 million people in developing countries by 2020, through a range of existing insurance schemes at all levels (such as CCRIF) and supporting research and delivery projects.

importance of humans above all other species has exacerbated the climate crisis we now face. Humans will not survive on this planet unless the ecosystems which sustain us can co-exist and thrive. Acidified oceans, diminishing fish stocks, biodiversity loss on the scale of a sixth mass extinction all undermine the very basis of life on this planet.

This raises questions of the rights of, and our responsibilities to, other species with whom we share the planet to avoid further climate injustices. We noted above innovative attempts to articulate rights for nature. Perhaps then we need then to consider not just inter-human and intergenerational, but also inter-species perspectives, when building the foundations for climate justice. To omit non-human creatures from the scope of justice could result in unjustly sacrificing the vital needs of non-human creatures. This resonates with claims about the rights of mother nature written into the Bolivian constitution and prevalent in the discourses of many indigenous groups. A key challenge is to move from a utilitarian perspective about 'what nature does for us' as humans where what is valued is that which is of importance to humans, to one where the intrinsic value of nature is also recognised.

Research from legal scholars, philosophers and practitioners on the principles, procedures and mechanisms that could support innovations in this area would help to clarify thinking about the potential and limitations of approaches which give legal standing to rivers, forests and other ecosystems. It would at once potentially help to protect the livelihoods of forest dwellers and indigenous peoples that inhabit them, as well as potentially put them beyond the realm of commercial exploitation and in so doing, make a contribution to climate justice through preventive mitigation. This could look at existing cases and precedents,[55] including from the global South (Gill 2016), as well as alternative formulations of rights and duties. Amid growing interest in the idea of 'ecocide'[56] as a new category of crime that could be heard by the International Court of Justice, this line of research could take a number of productive directions. One such line of analysis could draw on suggested parallels where, in so far as ecocide could be said to be a form of 'torture' on the physical environment, relevant examples could be prohibition against torture which is recognised as a peremptory norm of international law (*jus cogens*) and is enshrined in the Convention Against Torture (CAT). The CAT requires countries to create a crime against torture in national law but with universal jurisdiction.

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[55]   www.rapidtransition.org/stories/the-rise-of-the-rights-of-nature/.
[56]   https://pollyhiggins.com/.

6. Conclusions

It is clear from this study and the reality of contemporary climate politics that justice questions will play an increasingly important role in activism, policy debates and academia. It is critical that they do so as the world seeks to rebuild economies in the wake of the Covid-19 pandemic. As demands and opportunities intensify to accelerate and deepen mitigation actions, there will be opposition, dislocation and disruption. Efforts to ensure that transitions (as well as deeper transformations) are just ones are therefore critical. Through the concept of transformative climate justice, we have suggested there is significant scope for IDRC and other donors to improve our understanding of the tools and processes by which we can anticipate, better manage and avoid a situation in which the poorest in society bear the brunt of the urgently required transition to a low-carbon, climate-resilient economy.

The positive side of this is ensuring that peoples, regions and countries not currently benefiting from increased investments in renewable energies and able to re-orient their development paths in lower carbon and more sustainable directions take advantage of global Green Deals, new carbon market opportunities or the upscaling of carbon finance to guide new finance towards the needs of the poorest. In the case of the former, we have suggested research which follows low-carbon pathways along the supply chain, paying attention to social and labour conditions and environmental impacts, will enable us to address the need for a just transition. Notwithstanding the attention paid to the energy and (to a lesser extent) transport sectors, important work is needed across all sectors particularly those most directly affecting the livelihoods of the poorest, namely food and agriculture.

In a more macro context, avenues for important Southern-led research arise from climate justice concerns about 'climate debts' and addressing historical inequities, as well as concerns with loss and damage, and from efforts to ensure that renewed interest in carbon trading does not reproduce and exacerbate many of the social and environmental injustices experienced in the first wave of carbon trading. As interest grows in the use of other economic levers to accelerate decarbonisation, including trade and investment treaties (border tax adjustments and the like), work with lawyers and researchers from the South on impacts and implications for developing countries could be very important. Likewise, research and policy work on making the Technology Mechanism work for poorer countries and groups would be welcome. Since the closure of the ICTSD in Geneva, which used to play a vital role in providing guidance to developing countries on how to navigate IPR issues and trade regimes, and improve access to technology on terms beneficial to the poor, a void exists which IDRC might be well placed to help fill, alongside others.

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This strand of work might also include work on which legal, financial and political strategies will help to prevent the *generation* of further climate injustices. IDRC could support groups such as the Global Gas and Oil Network or Stand Earth and others in working with academics to research different models of supply-side policies including, but not restricted to, a Fossil Fuel Non-Proliferation Treaty. On 9 January 2020, Mary Robinson addressed the UN Security Council saying:

> There are those, for instance, who call for work to begin on a new Fossil Fuel Non-Proliferation Treaty – a bold and innovative idea that seeks to bring transparency, accountability and agreement to the cessation of fossil fuel production in a way that supports jobs and livelihoods. New ideas like these are needed – a new mindset that recognises the urgency of the challenge the IPCC posed in its report on warming at 1.5˚C.[57]

Other research might investigate the political enabling conditions for bold first moves by some countries to use bans and moratoria to leave fossil fuels in the ground. For instance, what can we learn from commitments from Belize, Costa Rica, New Zealand and France not to exploit reserves of oil and other fossil fuels? Are there lessons for other countries that will need to do the same if the goals of the Paris Agreement are to be achieved? Which global coalitions of first movers, including differentiated phase-out commitments for developing countries, can be supported?

We have noted throughout the study a growing number of place-based studies of climate justice and injustice. These have provided rich and important insights on how people and places unevenly experience the effects of climate change as well as measures to address climate change. This will continue to be important. But, we would argue, it needs increasingly to be tied to the drivers of injustice and comparative work on how those injustices can most effectively be prevented and contested. In other words, how can we better understand the enabling conditions for effectively contesting climate injustice? Which combinations of strategies (state-based, legal, financial, activist) seem to succeed in addressing injustices and which ones are potentially transferable? As more and more communities encounter the harsh effects of climate change, understanding what can be done in different contexts to manage and reverse further social marginalisation will be critical.

Climate justice can never be delivered in isolation from the pursuit of other justice claims, perhaps especially so in the context of needing to address the SDGs. Understanding the processes by which states, corporations, cities and communities are seeking to align climate justice with the pursuit of these other goals is critically important. How, by whom and for whom efforts are made to

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[57] **https://theelders.org/news/multilateral-solutions-are-vital-tackling-global-challenges-we-face**.

square climate justice with gender justice, water and food justice, conflict prevention and so on, presents a wicked governance problem. Research with and by communities on the front line of seeking to navigate this complex terrain in inclusive and just ways would be very valuable indeed. We suggested above, in particular, the need to engage with novel and innovative participatory approaches to doing this.

Finally, we noted that forms of 'deep' and transformative adaptation will be required. The failure to contain emissions growth means dramatic efforts are now required to live with the accelerating effects of climate change. Adapting ecosystems, infrastructures, service provision and people to a warming world brings with it a cluster of justice issues – procedural and distributive – across a growing array of interventions from public and private actors. There is an important role for IDRC and others in showcasing novel forms of financing, creative institutional designs that manage to include affected groups in the design and delivery of response measures, and that reduce or manage uneven exposure to the effects of climate change.

This is clearly an increasingly crowded policy, donor and academic field. Yet there is so much work to be done because of the scale of the challenge and the intimate relationship between climate change and all other aspects of human development. With strong global connections and partnerships and experience of working in many of the key sectors and regions we have touched upon here, IDRC is well placed to be at the forefront of efforts to advance research, practice, advocacy and policy around Southern-led visions of climate justice.

Appendices

A1: Growth in academic literature on climate justice since the early 2000s by year (x) and number of hits (y) on climate justice
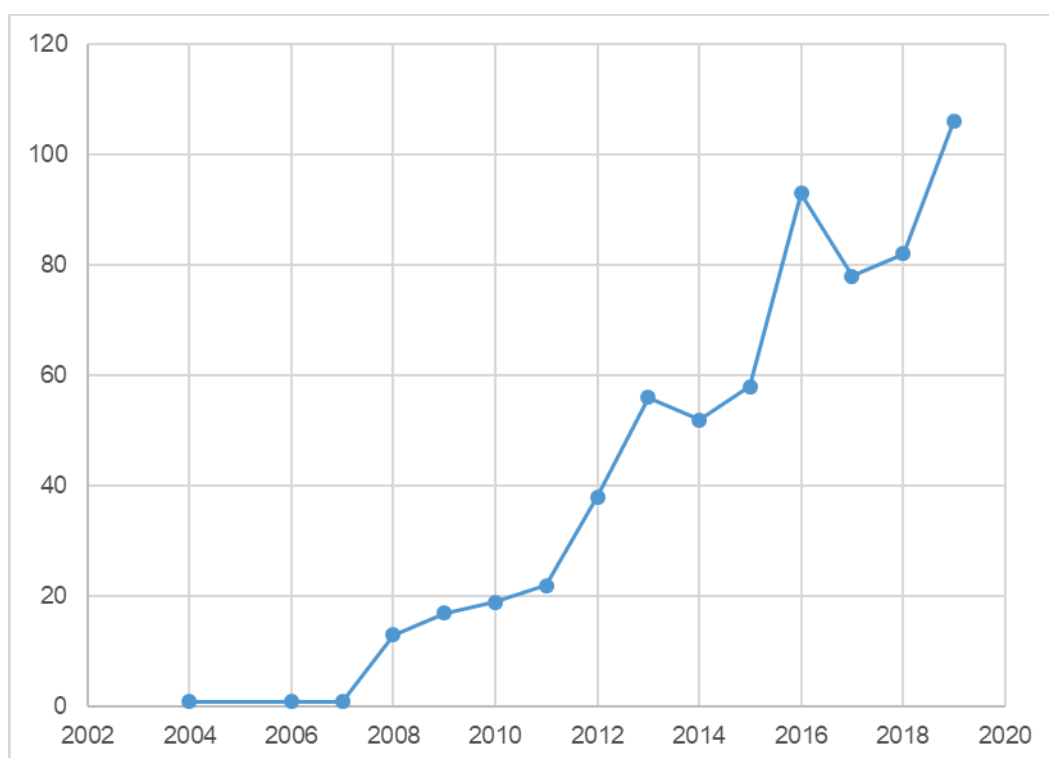
Source: Authors' own through literature review. See Annex A2 for further data.

A2: Comments on methodology

Keywords	Total Hits	Relevant Studies
climate justice AND gender AND procedural	163	3
climate justice AND participation AND procedural	97	5
climate justice AND indigenous people AND procedural	5	3
climate justice AND race AND procedural	13	1
climate justice AND disability AND procedural	5	2
climate justice AND children AND procedural	4	0
climate justice AND knowledge AND procedural	36	5
climate Justice AND access to justice AND procedural	73	6
climate justice AND access to law AND procedural	29	3
climate justice AND information AND procedural	20	5
climate justice AND institutions AND procedural	20	4
climate justice AND exclusion AND procedural	10	4
climate justice AND marginalisation AND procedural	9	4
climate justice AND policy process AND procedural	4	2
climate justice AND governance AND procedural	65	5
climate justice AND corruption AND procedural	4	1
climate justice AND inclusion AND procedural	13	7
climate justice AND human rights AND distributional	8	3
climate justice AND loss and damage	15	7
climate justice AND indigenous people AND distribution	21	7
climate justice AND compensation AND distribution	19	6
climate justice AND uneven distribution of goods and bads	11	6
climate justice AND equity AND distribution	178	6
climate justice AND just transition AND distribution	4	2
climate justice AND social access AND distribution	13	7
climate justice AND resource access AND distribution	8	1
climate justice AND gender and distributional	7	5
climate justice AND vulnerability AND distributional	7	7
climate justice AND race AND distributional	11	5
climate justice AND adevasi AND distributional	0	0
climate justice AND tribes AND distributional	0	0
climate justice AND tribal AND distributional	1	1
climate justice AND caste AND distributional	1	1
climate justice AND fairness AND intragenerational	0	0
climate justice AND equitable AND intergenerational	5	4
climate justice AND climate debt AND intergenerational	1	1
climate justice AND next generation AND intergenerational	0	0

Sources: Scopus, Google Scholar, JStor

A3: Papers and works mentioning climate justice since 2004

Hits per year when searching 'climate justice'	
2004	1
2006	1
2007	1
2008	13
2009	17
2010	19
2011	22
2012	38
2013	56
2014	52
2015	58
2016	93
2017	78
2018	82
2019	106

Source: Scopus and Google Scholar
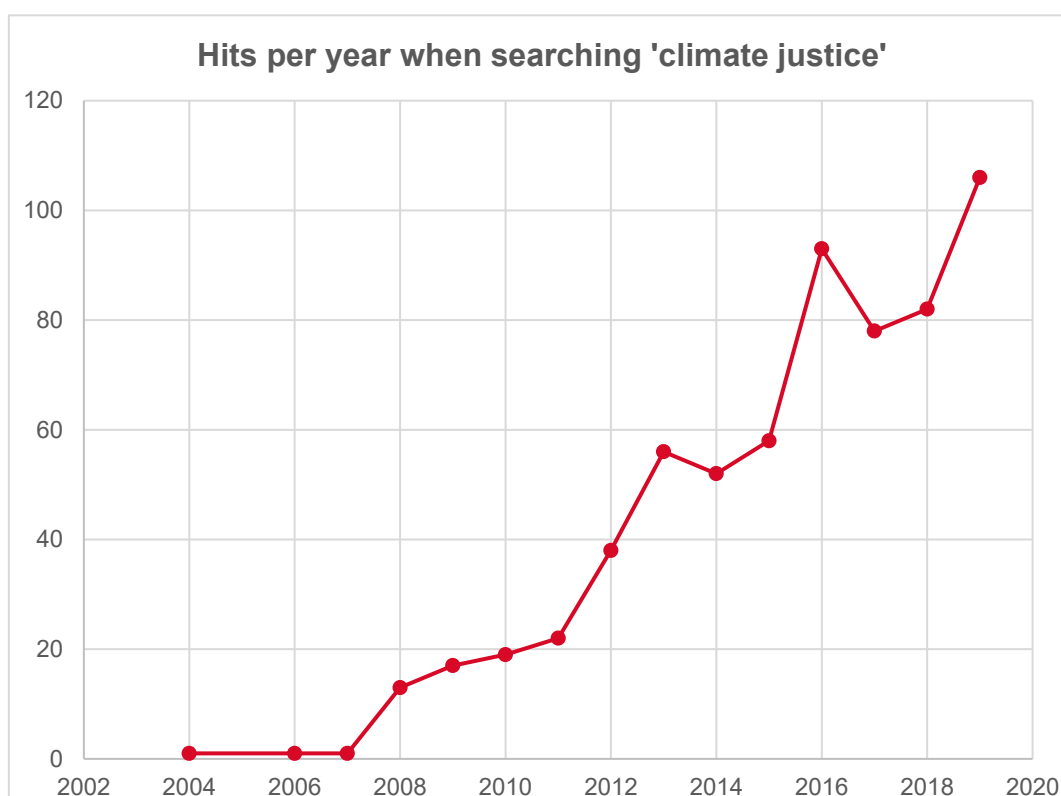
Source: Authors' own

Geographical focus*	2004	2010	2019
East Asia and Pacific	0	2	24
Europe and Central Asia	1	12	46
Latin America and Caribbean	0	0	3
Middle East and North Africa	0	0	1
North America	0	6	46
South Asia	0	0	7
Sub-Saharan Africa	0	0	1
Undefined	0	6	1

Sources: Scopus and Google Scholar

A4: Summary of methodology

	Questions	Objective	Our focus/ approach	Sources
Conceptual	What is climate justice?	Build theory from the global South Suggest new or refined conceptual framings Different understandings and trade-offs between conceptions of justice Map existing gaps in the theory Identify future areas of research	Typology: 1. procedural; 2. distributive; 3. inter-generational Mapping different concepts of justice in the global South Special emphasis on bottom-up perspectives emerging from social movements and mobilisation (include grounded perspectives) Include studies on children, gender, indigenous communities deploying an intersectional lens	Literature review Harness networks to identify regional/ vernacular literature Ongoing research projects that examine some of these critical questions
Applied research	Key thematic entry points	Identify knowledge gaps and strategic spaces/ arenas and actors to promote:	Highlight convergence and divergence in actors' perspectives	Participatory research on climate change Ongoing projects on

		– Justice in climate action – Just response to climate impacts – Strengthening institutions – Rights and empowerment Respond to climate conflicts	Role of alliances and networks Bottom-up processes of change, mobilisation, and co-production Agency of actors in fragile settings Resistance, inequities, and rights Deploy an intersectional lens	co-production for transformative adaptation, climate migration Harness networks in the climate justice and resource justice movement to identify front-line actors and their perspectives
Process	Building research process	Focal points for IDRC future programming Team-building for cross-cutting research Mapping key actors for alliance-building Suggest links to potential programming Identifying existing and new research platforms	Tabulate over-studied and under-studied topics and provide weightage for action Mapping key areas for value-added research (method and theoretical innovation; impact) Network mapping for collaborators and for identifying research platforms	Literature review focusing on evidence-based research and methods review Ongoing projects and collaborations Learning from Southern partners

			Mapping converging cross-cuts	
			Learning from Southern partners	
			Different research models for change	

A5: Proposals from the Cochabamba conference (2010)[58]

Proposals from the Cochabamba conference included:

– 50 per cent reduction of GHGs by 2017

– Stabilising temperature rises to 1°C

– Acknowledging the climate debt owed by developed countries

– Respect for the rights of indigenous peoples

– Establishment of an International Court of Climate Justice

– Rejection of carbon markets and the commodification of nature through REDD

– Promotion of measures to address the consumption patterns of developed countries

– End IPRs for technologies useful for mitigating climate change

– Richer countries to commit 6 per cent of their GDP to addressing climate change.

Demands from Climate Justice Now! in Bali 2007:[59]

– Large financial transfers from North to South based on historical responsibility and ecological debt for adaptation and mitigation paid for by recycling military budgets, taxes and debt cancellation.

– Leaving fossil fuels in the ground and investing in community-led renewable energy and energy efficiency measures.

– Rights-based resource conversation that enforces indigenous land rights and popular sovereignty over energy, land, water and forests.

– Sustainable farming and food sovereignty.

[58] People's Conference on Climate Change and the Rights of Mother Earth.
[59] Climate Justice Now! Founding statement Bali 14 December 2007.

A6: Key actors and networks for collaboration on climate justice

A6.1 Academic and research focused

– **Climate Justice Network** www.climatejusticenetwork.org/
This network brings together academics, policymakers, practitioners, and civil society activists engaged in climate justice issues. It facilitates multidisciplinary, and inclusive collaborations between political scientists in the US and social scientists, policymakers, municipal officials, and activists from the global South. While the main focus of their work is on the rapidly urbanising regions in the global South, it is informed by comparative analyses that cut across the global North–South divides. The network and its activities are supported by a 2018 Special Projects Fund award from the American Political Science Association (APSA).

– **University of Tasmania Climate Justice Network**
www.climatejustice.network/
The Climate Justice Network was launched in 2017 to explore issues of ethics, justice and law in responses to climate change. It is based at the Faculty of Law at the University of Tasmania. Its aims are to be a platform bringing together researchers from across disciplines to share their research, to inform climate policy development with justice and equity perspectives, and to promote engagement with government, local communities, business, younger people and students. It undertakes research into issues of ethics, justice and law that arise at the international, regional and local levels in responding to the challenge of climate change and the transition to a low-carbon future. It also works on future generations and just transitions.

– **Reading University Centre for Climate and Justice**
https://research.reading.ac.uk/centre-for-climate-and-justice/
The centre's research focuses on knowledge deficits in important areas relating to climate and justice. Our work seeks to inform those working in the field of climate justice in policy, civil society, and academia.

– **Glasgow Caledonian University**
www.gcu.ac.uk/climatejustice/research/
This is a small team with an ambitious programme covering themes such as: climate displacement and migration; climate justice and international development; climate change and resource management; environmental ethics, governance and policy; gender and climate change; health, wellbeing and resilience; intersectionality and climate inequality; pedagogy and participation; urban climate justice and community development. The

Glasgow Caledonian University has created a database for the collection and collation of climate justice research.

– **Mary Robinson Foundation**
www.mrfcj.org/principles-of-climate-justice/
Key areas of work are: human rights and climate change, women's leadership on gender, and climate change and future generations. The guiding principles of their work include: protection of human rights; support the right to development; share benefits and burdens equitably; ensure that decisions on climate change are participatory, transparent and accountable; highlight gender equality and equity; harness the transformative power of education for climate stewardship; use effective partnerships to secure climate justice. The foundation ceased some of its work in April 2019 but could be open to future collaborations if funding was available.

– **Practical Justice Initiative** University of New South Wales
https://pji.arts.unsw.edu.au/research/climate-justice
Jeremy Moss and colleagues. **https://climatejustice.co/** Focuses on: mining and morality; the carbon budget; renewable energy; justice and climate transitions; sub-state duties.

– **Climate Justice & Equity Network** Arizona State University
https://sustainability.asu.edu/climate-justice-equity/
This network helps people and organisations working at the intersection of justice and climate change to connect.

– **Global Network for the Study of Human Rights and the Environment (GNHRE)**
https://gnhre.org/2019/07/21/contributions-to-the-report-on-climate-change-and-human-rights-a-safe-climate/
GNHRE brings together scholars in the field attached to the network, as well as radical lawyers, NGOs, policymakers and activists.

– **ENVJUSTICE project** (2016–21)
www.envjustice.org/project/
Brings together university researchers and environmental justice organisations researching and supporting the global movement for environmental justice, building on a previous project EJOLT (2011–15).[60] The ENVJUSTICE project maps environmental conflicts along the supply chain, updating and maintaining the **EJAtlas** database.

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[60] Environmental Justice Organisations, Liabilities and Trade EJOLT combined research and activist communities, and is a global network working on a broad range of environmental justice issues. EJOLT provide critiques of the broadened geography of fossil fuel extractions, in the context of climate justice. Chief concerns are related to the loss of biodiversity, sensitive areas, human rights violations and the technologies used.

A6.2 Southern-based climate justice networks

– **Pan-African Climate Justice Alliance https://pacja.org/**
This is a coalition of civil society organisations embodying one African voice
on climate and environmental justice with more than 1,000 members in more
than 45 countries in Africa. It brings together a diverse membership drawn
from grass-roots, community-based organisations, faith-based organisations,
NGOs, trusts, foundations, indigenous communities, farmers and pastoralist
groups with a shared vision to advance a people-centred, rights-based, just
and inclusive approach to address climate and environmental challenges
facing humanity and the planet. Key themes include climate finance,
resilience and just transitions and energy access. PACJA's main financial
funding is provided by the Swedish International Development Agency (SIDA)
and the World Bank. Other partners, such as German's GIZ and UK's DFID,
supports specific projects and initiatives directly or through intermediaries.
Oxfam International, Christian Aid, Trócaire, Open Society Foundations,
Diakonia, and SNV also work with PACJA in specific sector-based projects,
campaigns and initiatives in counties, and at national or regional levels.

– **University of KwaZulu Natal Centre for Civil Society**
http://ccs.ukzn.ac.za/default.asp?10,5
The objective of the centre is to advance socioeconomic and environmental
justice by developing critical knowledge about, for and in dialogue with civil
society through teaching, research and publishing.

– **Indian Network on Ethics and Climate Change http://inecc.net/old/**
INECC is a national network of organisations and individuals who connect on
the issue of climate change from the perspective of marginalised
communities. It was formed in 1996 at the initiative of a few development
practitioners who saw the link between the climate change crisis and the
larger issues of sustainable development and social justice. INECC works to
bring climate change and sustainable development concerns of the
marginalised majority into policy dialogues.

– **APWLD (Asia Pacific Forum on Women, Law and Development) –
Climate Justice Programme https://apwld.org/our-programmes/climate-
justice/**
APWLD was established more than 30 years ago and is the leading network
of feminist organisations and individual activists in Asia Pacific. APWLD
fosters feminist movements in Asia Pacific to influence laws, policies and
practices at the local, national, regional and international levels. They develop
capacities, produce and disseminate feminist analyses, conduct advocacy,
and foster networks and spaces for movement-building to claim and
strengthen women's human rights. APWLD has a Climate Justice
programme, which focuses on building capacity of the women most affected

by climate change and collecting evidence on the impacts faced by communities in Asia Pacific. The programme conducts Feminist Participatory Action Research with grass-roots women's organisations and their communities, and mobilises cross-movements collaboration to co-create a Feminist Fossil Fuel Free Future.

– **WoMin https://womin.org.za/**
   Their work on coal and energy extractivism could provide interesting points of convergence with community-based work on climate justice. WoMin is an African gender and extractives alliance launched in October 2013, which works alongside national and regional movements and popular organisations of women, mining-impacted communities and peasants, and in partnership with other sympathetic organisations, to: (i) research and publicise the impacts of extractives on peasant and working-class women; (ii) support women's organising, movement-building and solidarity; (iii) advocate and campaign for reforms that go beyond short-term reformism to contribute towards the longer-term structural changes that are needed; (iv) advance, in alliance with numerous others, an African post-extractivist eco-just women-centred alternative to this dominant destructive model of development.

– **FAHAMU** (Kenya) **www.fahamu.org/**
   Fahamu works on a range of social justice issues building from a strong grass-roots and pan-African perspective and with a feminist analysis running through all their work. The diagram below (Figure A1) helps to capture this. Fahamu, in partnership with IBON International, is currently implementing a Climate Justice Initiative as part of the Adilisha programme. This is aimed at enhancing knowledge and capacities of constituents on key issues and debates, democratisation of policy and decision-making processes on climate change at national, regional and global levels and reducing the gap between community perspectives and high-level political discussions.

Figure A1: Interlinked nature of Fahamu's four programmatic areas
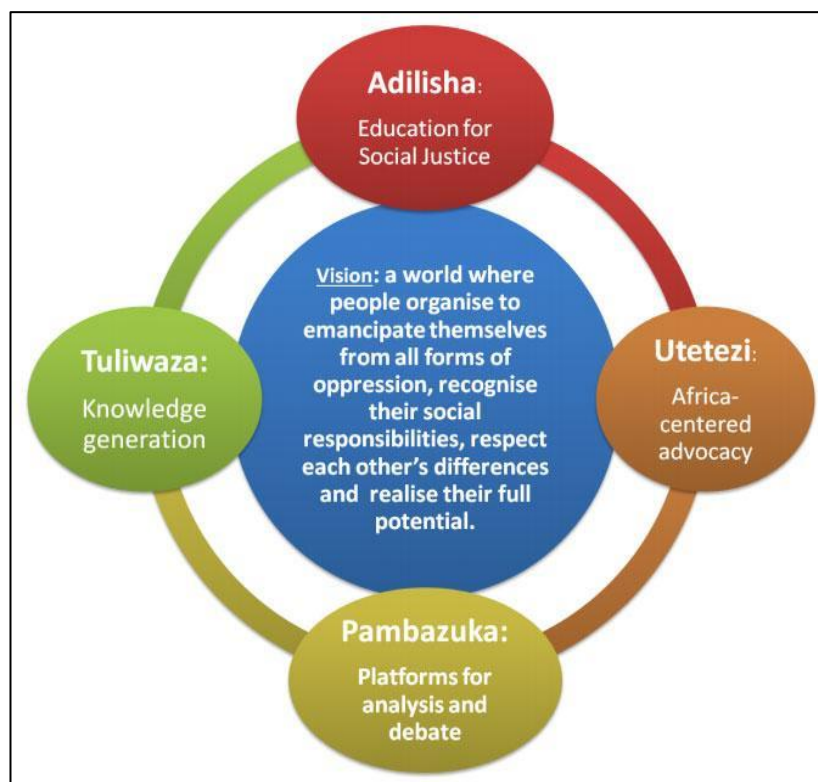
Source: Fahamu (**https://issuu.com/fahamu/docs/fhm_strategy2020_v4**). Reproduced with permission.

A6.3 Climate justice networks among engaged communities

– **The Climate Justice Alliance** (CJA) **https://climatejusticealliance.org/**
  Formed in 2013 to create a new centre of gravity in the climate movement by
  uniting front-line communities and organisations into a formidable force. Their
  translocal organising strategy and mobilising capacity is building a just
  transition away from extractive systems of production, consumption and
  political oppression, and towards resilient, regenerative and equitable
  economies. They argue that the process of transition must place race, gender
  and class at the centre of the solutions equation in order to make it a truly just
  transition. They are an alliance of 70 urban and rural front-line communities,
  organisations and supporting networks in the climate justice movement.
  Member organisations lead CJA by anchoring major just transition projects
  focused on the social, racial, economic and environmental justice issues of
  climate change. They are made up of locally, tribally, and regionally-based
  racial and economic justice organisations of indigenous peoples, African
  American, Latinx, Asian Pacific Islander, and poor white communities who
  share legacies of racial and economic oppression and social justice
  organising. Example areas of work include popular education, just transition,

energy democracy, People's Climate March (PCM) and Reinvest in Our Power.

– **The Climate Justice Programme** (CJP) **https://climatejustice.org.au/**
CJP is an independent not-for-profit NGO that uses the law to expose environmental and human rights issues relating to climate change. It is a group of lawyers, academics and campaigners who support the development and execution of strategic initiatives to address global climate change. They seek to raise awareness and engagement in climate law through longstanding global networks of lawyers and international organisations. The CJP is the only programme globally that has been established with the sole purpose to work collaboratively with lawyers, campaigners and scientists in this innovative field.

– **Climate Justice Now! https://climatejusticenow.org/em-cjn/mission/**
A network of organisations and movements from across the globe committed to the fight for social, ecological and gender justice. It seeks to take its struggle forward not just in climate talks, but on the ground and in the streets, to promote genuine solutions that include: (i) leaving fossil fuels in the ground and investing instead in appropriate energy-efficiency and safe, clean and community-led renewable energy; (ii) radically reducing wasteful consumption, first and foremost in the North, but also by Southern elites; (iii) huge financial transfers from North to South, based on the repayment of climate debts and subject to democratic control. The costs of adaptation and mitigation should be paid for by redirecting military budgets, innovative taxes and debt cancellation; (iv) rights-based resource conservation that enforces indigenous land rights and promotes peoples' sovereignty over energy, forests, land and water; (v) sustainable family farming and fishing, and peoples' food sovereignty.

– **Just Transition Research Collaborative (JTRC)**
www.unrisd.org/unrisd/website/projects.nsf/%28httpProjects%29/5A869 CB10DDF0AEDC125824F0057605B
JTRC is a space for exchange and discussion that brings together a range of experts from academia and civil society to collectively map and analyse the different understandings and narratives of 'Just Transition' underpinning the concept's growing popularity and uptake. The project provides an important contribution to the science-policy dialogue around just transition, and offers policy recommendations on how the approach can be used to foster the transition to equitable low-carbon development. The project is run jointly by UNRISD and Edouard Morena (University of London Institute in Paris) and supported by the Rosa-Luxemburg-Stiftung.

– **Durban Group for Climate Justice** www.tni.org/en/profile/durban-group-for-climate-justice
The Durban Group for Climate Justice is an international network of independent organisations, individuals and people's movements that reject the free market approach to climate change. The network is committed to help build a global grass-roots movement for climate justice, mobilise communities around the world, and pledge solidarity with people opposing carbon trading on the ground.

– **Global Justice Ecology Project (GJEP)** https://globaljusticeecology.org/
GJEP explores and exposes the intertwined root causes of social injustice, ecological destruction, and economic domination.

– **Environmental Justice Foundation** https://ejfoundation.org/what-we-do/climate
This works on issues of climate conflict and refugees. It uses video, along with new technologies, to document threats to environmental security and human rights. Producing hard-hitting reports and investigations, it targets decision makers and works to change laws and policies with a positive impact for people and planet. By combining our investigations with bespoke training and community support it also helps to build local capacity, give a voice to new environmental defenders and strengthen the global call for change.

– **GenderCC – Women for Climate Justice** https://gendercc.net/home.html
This is a global network of organisations, experts and activists working for gender equality, women's rights and climate justice. GenderCC includes women and gender experts working in policy, research and practical implementation at international, national and local levels.

– **Women's Environment & Development Organisation** (**WEDO**) https://wedo.org/
A global women's advocacy organisation for a just world that promotes and protects human rights, gender equality, and the integrity of the environment. Key focus areas include global climate policy, sustainable cities, disaster risk reduction, peace, conflict and natural resources. One of their main programmes is on mobilising women for climate justice.

– **The Global Gas & Oil Network (GGON)** http://ggon.org/
GGON includes NGOs around the world working to facilitate a managed decline of oil and gas production. Their site was developed to provide resources to policymakers, advocates, researchers, campaigners, and community members tracking the shift of our energy system away from oil and gas towards clean, socially just alternatives.

– **Stand.earth** www.stand.earth/
Stand (prev. Forest Ethics) was created to challenge corporations and

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governments to treat people and the environment with respect. Their work and approach has evolved from a dedicated focus on forest protection to tackling some of the root causes of climate change and environmental injustice.

– **ActionAid Climate Justice for Women** https://actionaid.org.au/home/our-work/issues/climate-justice/

ActionAid Australia's programme supports women to adapt to climate change by increasing their access to resources and decision-making. They are working in solidarity with women around the world to advance climate justice by replacing systems that cause environmental destruction and inequality, with more just alternatives.

– **SEED** www.seedmob.org.au/

This is Australia's first indigenous youth climate network. They are building a movement of Aboriginal and Torres Strait Islander young people for climate justice with the Australian Youth Climate Coalition. Their vision is for a just and sustainable future with strong cultures and communities, powered by renewable energy.

A6.4 Funding organisations

– **Climate Justice Resilience Fund** www.cjrfund.org/

CJRF seeks to support communities first hit, first to respond, and first to adapt to climate change to develop and scale climate solutions that help them reduce risks, manage shocks, rebound, and continue charting a sustainable development path. It supports communities to build climate resilience. The Climate Justice Resilience Fund is a grant-making initiative dedicated to helping women, youth, and indigenous peoples create and share their own solutions for resilience. We help communities reduce risks, manage shocks, rebound, and continue charting a path to sustainable development. It was created in 2016 through a grant from the Oak Foundation.

– **Mary Robinson Foundation – Climate Justice** www.mrfcj.org/our-work/the-many-faces-of-climate-justice-exploring-the-principles-of-climate-justice/

The site hosts some useful resources but closed many of its activities in April 2019. Some of the foundation's work continues through the activities of the elders which Mary Robinson chairs.[61] This includes a programme of work on climate change and climate justice specifically.[62]

– **UNRISD and Rosa Luxemburg Stiftung** are funding work on just transitions including the Just Transition Research Collaborative (JTRC). This is a space

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[61] www.theelders.org/.
[62] www.theelders.org/programmes/climate-change.

for exchange and discussion that brings together a range of experts from academia and civil society to collectively map and analyse the different understandings and narratives of 'just transition' underpinning the concept's growing popularity and uptake. The project provides an important contribution to the science–policy dialogue around just transition, and offers policy recommendations on how the approach can be used to foster the transition to equitable low-carbon development. **A range of interesting commentaries and case studies, including one written by us, can be found here**.

– **Climate Justice Innovation Fund (CJIF) www.corra.scot/news/2019-climate-justice-innovation-funding-round**
This is a Scottish Government fund. The fund is open to any Scotland-based organisation, working in partnership with in-country partner(s), to support the delivery of climate justice-related projects which field test the feasibility of new methods, technologies or approaches in tackling climate change, or trial new innovations on the path to scale. CJIF has a clear focus on innovation. CJIF projects have to be delivered in one or more of the Scottish Government's International Development sub-Saharan partner countries (Malawi, Zambia or Rwanda).

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