

CLIMATE ADAPTATION, VULNERABILITY, AND RIGHTS-BASED LITIGATION: BROADENING THE SCOPE OF CLIMATE LITIGATION USING POLITICAL ECOLOGY

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Abstract

This article examines the nexus between climate vulnerability, rights and litigation with a focus on the Global South. Reducing vulnerability is inherent to climate adaptation and the protection and realisation of human rights. However, despite these linkages, vulnerability has been given scant attention in climate law literature. Through a more detailed understanding of vulnerability, we can identify a wider variety of cases that are relevant to why people are climate vulnerable and the potential for strategic interventions. Accordingly, using an interdisciplinary framework drawing upon political ecology, the article outlines two broad approaches to vulnerability. The hazards approach, based upon protecting people from the physical impacts of climate change; and the social vulnerability approach, which foregrounds the socio-political factors that underpin why particular groups of people are more vulnerable than others. India is then used as a case study to illustrate three types of litigation relevant from a vulnerability perspective: litigation on droughts, land conflicts and agrarian debt. These cases, though not traditionally defined as ‘climate litigation’, are fundamentally issues of climate vulnerability, adaptation and rights. The cases demonstrate how different framings of climate vulnerability are embedded within the arguments and directions of the courts. Ultimately, the article argues that through a closer understanding of climate vulnerability, litigation can be a vehicle for adaptation by identifying and tackling the structural causes of vulnerability and rights issues.

Keywords:

Climate Vulnerability, India, Human Rights, Climate Justice, Global South, Drought, Agrarian Crisis

1. Introduction

The growth of climate litigation in recent years has garnered significant attention. High profile cases have grabbed headlines worldwide and generated optimism that courts can be an avenue to leapfrog political stagnation on climate action.¹ Within this field, there is increasing attention on litigation in the Global South.² Countries in the Global South are experiencing the worst effects of climate change and are seen as the most vulnerable to climate change.³ Hence, rights-based litigation is seen as a vital strategy to get “just outcomes for the most climate-vulnerable”.⁴ This article examines the nexus between vulnerability, rights, and litigation, in the context of the Global South, specifically through a case study of India.

To do this, I draw upon a detailed understanding of climate vulnerability that brings to life how vulnerabilisation occurs on the ground. Vulnerability is inherently linked to adaptation, as adaptation is about vulnerability reduction. Recent scholarship has highlighted the importance of litigation concerning climate change adaptation.⁵ However, traditional adaptation policies and actions have been critiqued for their narrow, apolitical, and technocratic approach.⁶ Research has shown that many of these project and policies merely reinforce existing power structures and do not pay attention to the socio-political nature of how climate change materialises on the ground.⁷ Critical political ecologists argue this is because of the

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¹ Damian Carrington, ‘Can Climate Litigation Save the World?’ *The Guardian* (20 March 2018) <<http://www.theguardian.com/environment/2018/mar/20/can-climate-litigation-save-the-world>> accessed 7 December 2020.

² Joana Setzer and Lisa Benjamin, ‘Climate Litigation in the Global South: Constraints and Innovations’ (2019) 9 *Transnational Environmental Law* 77; Jacqueline Peel and Jolene Lin, ‘Transnational Climate Litigation: The Contribution of the Global South’ (2019) 113 *American Journal of International Law* 679; Jolene Lin and Douglas A Kysar (eds), *Climate Change Litigation in the Asia Pacific* (1st edn, Cambridge University Press 2020).

³ Glenn Althor, James EM Watson and Richard A Fuller, ‘Global Mismatch between Greenhouse Gas Emissions and the Burden of Climate Change’ (2016) 6 *Scientific Reports* 20281.

⁴ Peel and Lin (n 2) 682.

⁵ See: in this volume Riccardo Luporini, ‘Human Rights-based Litigation to Advance Climate Change Adaptation: Realities and Prospects’ (2021) *Journal of Human Rights and Climate Change* XX; The Hon. Justice Brian J Preston, ‘The Role of the Courts in Facilitating Climate Change Adaptation’ (Asia Pacific Centre for Environmental Law: Climate Change Adaptation Platform, 16 August 2016) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=282928> accessed 1 June 2021.

⁶ Andrea Joslyn Nightingale and others, ‘Beyond Technical Fixes: Climate Solutions and the Great Derangement’ (2020) 12 *Climate and Development* 343.

⁷ Marcus Taylor, ‘Climate Change, Relational Vulnerability and Human Security: Rethinking Sustainable Adaptation in Agrarian Environments’ (2013) 5 *Climate and Development* 318; Siri H Eriksen, Andrea J

way climate change and vulnerability have been framed.⁸ Despite a rich volume of non-legal academic literature on climate vulnerability and adaptation, the concept of climate vulnerability has been used generically by climate law scholarship.⁹ In this article, I draw on critical political ecology to examine climate vulnerability. The article analyses how climate vulnerability is framed, the implications on the types of claims brought forward, and the relief sought and given by the court. Thus, the article contributes a unique interdisciplinary perspective to climate litigation literature at this critical juncture.¹⁰

The article also broadens the scope of inquiry on what counts as ‘climate litigation’ by incorporating smaller, more discrete cases that may not have been argued on expressly climate grounds. As Bouwer states, there is a need to “look beyond actions that are overtly about climate change” and pay attention to the “multiple ways in which climate change issues might be present but invisible”.¹¹ Scholars have noted how adaptation cases are often unnoticed because they are not directly argued on climate grounds, dealing with local developmental issues such as water access or land use.¹² However, notwithstanding this acknowledgement, there is hesitance by climate litigation scholars to incorporate cases that are not argued directly on climate grounds. As I argue here, it is necessary to engage with these cases. Moreover, it is vital to have an analytical framework that equips us to identify these less visible cases. This article contributes towards providing that framework, through an analysing climate vulnerability.

In this article, I identify two broad framings of climate vulnerability from the literature: (i) the hazards framing; and (ii) the social vulnerability framing. These framings, as will be shown, lead to the identification of different types of litigation. In a hazards framing, the biophysical impacts of climate

Nightingale and Hallie Eakin, ‘Reframing Adaptation: The Political Nature of Climate Change Adaptation’ (2015) 35 *Global Environmental Change* 523; Benjamin K Sovacool, ‘Bamboo Beating Bandits: Conflict, Inequality, and Vulnerability in the Political Ecology of Climate Change Adaptation in Bangladesh’ (2018) 102 *World Development* 183.

⁸ Nightingale and others (n 6); Mara J Goldman, Matthew D Turner and Meaghan Daly, ‘A Critical Political Ecology of Human Dimensions of Climate Change: Epistemology, Ontology, and Ethics’ (2018) 9 *Wiley Interdisciplinary Reviews: Climate Change* e526; Eriksen, Nightingale and Eakin (n 7).

⁹ In relation to litigation, see for example: Louis J Kotzé and Anel du Plessis, ‘Putting Africa on the Stand: A Bird’s Eye View of Climate Change Litigation on the Continent’ [forthcoming] *Journal of Environmental Law and Litigation*; Setzer and Benjamin (n 2). In relation to climate change and law, see for example: Maria L Banda, ‘Global Adaptation Law: Optimizing Legal Design for Multi-Level Public Goods after the Paris Agreement’ (2018) 51 *Vanderbilt Journal of Transnational Law* 1027; JBR Ruhl, ‘Climate Change Adaptation and the Structural Transformation of Environmental Law’ (2010) 40 *Environmental Law* 343.

¹⁰ For a discussion of interdisciplinary contributions on climate litigation, see: Joana Setzer and Lisa C Vanhala, ‘Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Governance’ (2019) 10 *Wiley Interdisciplinary Reviews: Climate Change* e580, 6.

¹¹ Kim Bouwer, ‘The Unsexy Future of Climate Change Litigation’ (2018) 30 *Journal of Environmental Law* 483, 502.

¹² Peel and Lin (n 2) 690; Joana Setzer and Lisa Benjamin, ‘Climate Change Litigation in the Global South: Filling in Gaps’ (2020) 114 *AJIL Unbound* 56, 60; Setzer and Vanhala (n 10) 3.

change are focussed on as an ‘external threat’ to society.¹³ Hence, human society needs to be shielded from, or adapt to, this threat.¹⁴ The hazards framing generally leads to technical or managerial policy fixes, such as building sea walls or farming techniques to tackle a drought, aiming to protect from the physical threat of climate change.¹⁵

In contrast, a social vulnerability framing foregrounds the socio-political factors that underpin an individual’s or community’s vulnerability to climate change. Exposure to biophysical climate impacts such as droughts, floods, or sea-level rise is not the only factor affecting people’s vulnerability in the face of climate change. Socio-economic factors, such as access to credit, land ownership and social infrastructure also have a crucial, if not decisive, role in how people respond to ‘natural’ forces.¹⁶ Critical scholarship has also emphasised the importance of power relations and structural processes.¹⁷ With a focus on social and ecological factors across different scales, the social vulnerability framing can draw attention to lower-profile, smaller-scale litigation that is often invisible to climate litigation scholarship.¹⁸

The framework outlined in this article also has practical utility in strategically identifying litigation opportunities to reduce vulnerability and protect rights. Adaptation litigation in domestic jurisdictions have often focussed on holding governments accountable for their national adaptation policies.¹⁹ However, there is little scrutiny of what these policies are, what actions the litigation aims to fulfil, and what impact those policies have. Critical political ecologists have demonstrated how many adaptation projects, while fulfilling specific funding and policy goals, fail to have a more structural transformation in reducing vulnerability and enabling communities to adapt.²⁰ On the other hand, a social vulnerability

¹³ Michael Mikulewicz, ‘Politicizing Vulnerability and Adaptation: On the Need to Democratize Local Responses to Climate Impacts in Developing Countries’ (2018) 10 *Climate and Development* 18, 20.

¹⁴ *ibid.*

¹⁵ Nightingale and others (n 6); Erik Swyngedouw, ‘Depoliticized Environments: The End of Nature, Climate Change and the Post-Political Condition’ (2011) 69 *Royal Institute of Philosophy Supplement* 253; W Neil Adger and others, ‘Are There Social Limits to Adaptation to Climate Change?’ (2009) 93 *Climatic Change* 335; Karen O’Brien and others, ‘What’s in a Word? Conflicting Interpretations of Vulnerability in Climate Change Research’ (Centre for International Climate and Environment Research 2004) CICERO Working Paper 04..

¹⁶ Mikulewicz (n 13) 1.

¹⁷ Eriksen, Nightingale and Eakin (n 7); Taylor, ‘Climate Change, Relational Vulnerability and Human Security: Rethinking Sustainable Adaptation in Agrarian Environments’ (n 7); Marcus Taylor, *The Political Ecology of Climate Change Adaptation: Livelihoods, Agrarian Change and the Conflicts of Development* (Routledge 2015); Nithya Natarajan, Katherine Brickell and Laurie Parsons, ‘Climate Change Adaptation and Precarity across the Rural–Urban Divide in Cambodia: Towards a “Climate Precarity” Approach’ (2019) 2 *Environment and Planning E: Nature and Space* 899.

¹⁸ Bower (n 11) 502–504.

¹⁹ See for example: *Leghari v Pakistan*, Lahore High Court, September 2015, W.P. No. 25501/2015; *Shrestha v Office of the Prime Minister et al.*, Supreme Court of Nepal, Decision n° 10210, Order 074-WO-0283, December 2018; *Notre Affaire à Tous et al. v France*, ‘Demande Prealable Indemnitare’ (2018) 34.

²⁰ Marcus Taylor and Suhas Bhasme, ‘Between Deficit Rains and Surplus Populations: The Political Ecology of a Climate-Resilient Village in South India’ (2020) In Press *Geoforum*; Taylor, *The Political Ecology of Climate Change Adaptation* (n 17) 49–72; Sovacool (n 7).

framing invites us to investigate the multiple different processes that drive vulnerabilisation. These perspectives allow us to think of a broader range of litigation interventions necessary to overturn vulnerabilisation. For instance, this article includes cases on disaster management, drought response, property and land acquisition, debt relief that are drivers of vulnerability in rural India. The cases discussed in this article have not been argued on expressly climate grounds, yet, as will be explained, they are very relevant to climate vulnerability and adaptation. By providing the analytical tools to understand how vulnerability materialises, I argue that different types of litigation can be mobilised in different contexts, and a more impactful strategy for climate adaptation litigation is possible.

India is used as a case study in this article. Cases are contextualised and analysed to identify their relevance to vulnerability. Although discussed in terms of domestic law and litigation, linkages are made to wider processes of international law and global political economy. India is a relevant case study for several reasons. First, climate change is a critical issue for India from a vulnerability perspective as a country with a large rural population with high poverty levels.²¹ The breadth of issues being experienced in India does translate to other regions in the Global South. Second, there is a history of rights-based public interest litigation in India, including concerning environmental issues. Such jurisprudence has influenced other countries in the region.²² Although litigation argued on expressly climate grounds in India has been discussed elsewhere, the approach adopted in this article means a number of new cases and issues are introduced into this discussion.²³ Finally, contributions on climate litigation in the Global South are an identifiable gap in the existing climate litigation literature.²⁴

There are two parts to this article. Section Two categorises and analyses the literature on climate vulnerability, first looking at the hazards framing and then a social vulnerability framing. The social vulnerability framing is divided into two sub-sets – a human security and relational approach. The discussion on climate vulnerability is then tied back to climate litigation and human rights. Section Three goes on to identify different areas of litigation using these framings. Drawing on cases in India, three ‘types’ of litigation are discussed – litigation concerning state responses to droughts, litigation over land used for renewable energy generation, and litigation over agricultural debt. The article concludes with some thoughts on further research and litigation implications.

²¹ India is often ranked among the ‘most climate affected’ nations in the world. See for example: David Eckstein and others, *Global Climate Risk Index 2020 Who Suffers Most from Extreme Weather Events? Wether-Related Loss Events in 2018 and 1999 to 2018* (2019).

²² For instance, Khan writes about its influence in Pakistan’s Public Interest Litigation, see: Maryam S Khan, ‘Genesis and Evolution of Public Interest Litigation in the Supreme Court of Pakistan: Toward a Dynamic Theory of Judicialization’ (2014) 28 *Temple International and Competition Law Journal* 285.

²³ Shibani Ghosh, ‘Litigating Climate Claims in India’ (2020) 114 *AJIL Unbound* 45; Emeline Pluchon, ‘Leading from the Bench: The Role of Judges in Advancing Climate Justice and Lessons from South Asia’, *Routledge Handbook of Climate Justice* (Routledge 2018).

²⁴ Setzer and Vanhala (n 10) 4.

2. Framing climate vulnerability: understanding and identifying rights-based vulnerability litigation

Over the last three decades, a substantial volume of academic literature on ‘climate vulnerability’ has developed in the social and ecological sciences.²⁵ This section draws on this literature and categorises two broad approaches that have developed: the hazards approach and the social vulnerability approach.²⁶

2.1. *Hazards based approach to vulnerability*

The hazards approach focuses on physical vulnerability to climate impacts, such as cyclones, extreme rainfall, or a meteorological drought.²⁷ The approach assumes a sharp distinction between the natural and social worlds, stemming from traditional hazards and disaster management studies.²⁸ The Intergovernmental Panel on Climate Change’s (IPCC) early definitions of vulnerability reflected this understanding, as defining vulnerability as “the degree to which a system is susceptible to and unable to cope with, adverse effects of climate change, including climate vulnerability and extremes.”²⁹ Climate change adaptation actions have traditionally adopted a hazards approach, aiming to reduce the threat of exposure to the physical impacts of climate change. However, the approach pays little attention to the socio-political factors that may underpin vulnerability.

A hazard framing is usually used to justify climate adaptation policies and projects such as building seawalls for flood defences or introducing new seeds for crops to withstand drought.³⁰ Climate litigation scholarship has often focussed on adaptation cases that reflect a hazards approach to vulnerability. For instance, Australia is discussed in the literature for its adaptation jurisprudence, primarily because of cases about protecting the shorelines from floods and preventing physical building developments.³¹ As hazards framings are based on vulnerability directly to a biophysical risk of climate change, litigation based upon these risks can be easily framed in climate language. Hence, it is not surprising that climate litigation scholarship has generally focused on adaptation and vulnerability cases with such a framing. However, as

²⁵ For an overview of vulnerability, see recent review articles: Christine Gibb, ‘A Critical Analysis of Vulnerability’ (2018) 28 *International Journal of Disaster Risk Reduction* 327; Goldman, Turner and Daly (n 8); Mikulewicz (n 13).

²⁶ Here I am drawing on the categorisation by Mikulewicz (n 13).

²⁷ W Neil Adger, ‘Vulnerability’ (2006) 16 *Global Environmental Change* 268.

²⁸ Goldman, Turner and Daly (n 8); Taylor, *The Political Ecology of Climate Change Adaptation* (n 17) 10–11.

²⁹ ML Parry and others (eds), *IPCC, 2007: Climate Change 2007: Impacts, Adaptation and Vulnerability: Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2007) 6.

³⁰ Mikulewicz (n 13) 23.

³¹ Jacqueline Peel and Hari M Osofsky, ‘Climate Change Litigation’ (2020) 16 *Annual Review of Law and Social Science* 21, 27; Tayanah O’Donnell, ‘Climate Change Adaptation Litigation: A Pathway to Justice, but for Whom?’ in Anna Lukaszewicz and Claudia Baldwin (eds), *Natural Hazards and Disaster Justice: challenges for australia and its neighbours* (Palgrave Macmillan 2020); Xiangbai He, ‘Legal and Policy Pathways of Climate Change Adaptation: Comparative Analysis of the Adaptation Practices in the United States, Australia and China’ (2018) 7 *Transnational Environmental Law* 347.

we will see, this risks missing how climate change materialises into people's lives and the multiple rights-based concerns that arise.

2.2. *Social vulnerability: human security and relational approaches*

In contrast to the hazards framing, the social vulnerability approach foregrounds socio-economic and socio-political factors of vulnerability.³² Climate vulnerability is not merely through exposure to a flood or a drought but also through the socio-economic realities on the ground.³³ The social dimensions of climate change are foregrounded to explain why particular groups are far more affected by climate change than others. The scholarship on social vulnerability is quite varied, bringing together different disciplines, theoretical and methodological inquiries. Two subsets of the social vulnerability approach are human security and relational approaches to vulnerability. These are discussed in turn.

2.2.1. *Human Security*

The human security approach traces its roots back to Amartya Sen's critique of the hazards approach to famines and droughts.³⁴ Sen argued that it was not an absolute food shortage that caused famines and droughts; rather, food insecurity and famines occurred due to socio-political factors with access to food, poverty, and distribution. Thus, a human security framing foregrounds the dynamic social, economic, political, institutional and technological factors, rather than just the biophysical impacts of climate change, to demonstrate who is vulnerable and who is not.³⁵ Human security occurs when and where individuals and communities have the options necessary to end, mitigate or adapt to risks to their rights and have the capacity and freedom to exercise these options.³⁶

Climate vulnerability is thus a product of multiple processes that interact – not just the biophysical weather risk.³⁷ For instance, Pelling finds that flood vulnerability in Guyana is not solely a product of physical systems; instead, who is vulnerable to floods is a product of livelihood options, household tenure, physical infrastructure, and (the lack of) community organisation.³⁸ O'Brien and Leichenko argue that the spread of infectious diseases and the economic policies in South Africa

³² Mikulewicz (n 13) 20; Gibb (n 25).

³³ Karen L O'Brien and RM Leichenko, 'Human Security, Vulnerability, and Sustainable Adaptation' (UNDP 2007) Background Paper commissioned for the Human Development Report 2007/2008: Fighting Climate Change: Human Solidarity in a Divided World; Victoria Basolo, 'Environmental Change, Vulnerability and Disasters: The Case of Hurricane Katrina and New Orleans' in Richard A Matthew and others (eds), *Global Environmental Change and Human Security* (MIT Press 2010); W Neil Adger, 'Social Vulnerability to Climate Change and Extremes in Coastal Vietnam' (1999) 27 *World Development* 249.

³⁴ Amartya Sen, *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford University Press 1981).

³⁵ Karen O'Brien and others, 'Why Different Interpretations of Vulnerability Matter in Climate Change Discourses' (2007) 7 *Climate Policy* 73, 76.

³⁶ GECHS, *Global Environmental Change and Human Security (GECHS) Science Plan* (IHDP 1999).

³⁷ Eriksen, Nightingale and Eakin (n 7) 524.

³⁸ Mark Pelling, 'The Political Ecology of Flood Hazard in Urban Guyana' (1999) 30 *Geoforum* 249.

represents a pivotal factor in how individuals and communities are responding to climate change.³⁹ Those with chronic illnesses struggle to adapt to drought and food and water shortages and the privatisation of water, further marginalises access to water.⁴⁰ The authors emphasise that human security should be enhanced to reduce vulnerabilisation and help individuals and communities adapt. Accordingly, the policy responses that follow are often focused on poverty alleviation, social welfare, infrastructural investment, public health, and other welfare enhancement measures.⁴¹ Human security is attained when people and communities have the capacity to “manage stresses to their needs, rights, and values” and therein minimising their vulnerability to climate impacts while simultaneously expanding their capabilities to improve welfare.⁴²

Building upon human security scholarship, the ‘relational framing’ goes deeper into examining the role of power and processes in the vulnerabilisation of individuals and communities.⁴³ Though human security scholars have identified the social dimensions of climate vulnerability and the unequal experiences of vulnerabilisation, relational vulnerability scholars contend that this is not enough to overturn the production and reproduction of climate vulnerability.⁴⁴ Accordingly, the relational approach aims to expose the socio-political processes that produce unequal geographies of climate vulnerability. A key question is *why* people are vulnerable or at risk.⁴⁵ Relational vulnerability scholarship examines how vulnerabilisation is both a product of and intertwined with social, economic, and climatic relations that reproduce themselves in unequal ways in a climate-pressed world.⁴⁶ Human security approaches identify the need to improve the capacity to adapt, through public health interventions, poverty alleviation, and other socio-political factors. Relational approaches, on the other hand, aim to reveal and overturn the exploitative power structures that create unequal vulnerabilisation in those areas in the first place. Thus, the relational approach radically politicises the question of vulnerability. Such an approach draws attention to the distribution and use of power between different social groups – such as between citizen and state, landless and landowning, worker and capitalist - in processes of vulnerabilisation.

³⁹ O’Brien and Leichenko (n 33).

⁴⁰ *ibid* 12.

⁴¹ Siri H Eriksen and Karen O’Brien, ‘Vulnerability, Poverty and the Need for Sustainable Adaptation Measures’ (2007) 7 *Climate Policy* 337, 341.

⁴² Taylor, *The Political Ecology of Climate Change Adaptation* (n 17) 81.

⁴³ Taylor, ‘Climate Change, Relational Vulnerability and Human Security: Rethinking Sustainable Adaptation in Agrarian Environments’ (n 7); Jesse C Ribot, ‘Vulnerability before Adaptation: Toward Transformative Climate Action’ (2011) 21 *Global Environmental Change* 1160; Natarajan, Brickell and Parsons (n 17); Mikulewicz (n 13); Eriksen, Nightingale and Eakin (n 7).

⁴⁴ Taylor, ‘Climate Change, Relational Vulnerability and Human Security: Rethinking Sustainable Adaptation in Agrarian Environments’ (n 7) 324.

⁴⁵ Ribot (n 43) 1160.

⁴⁶ Gibb (n 25) 330.

For instance, using a relational framing of vulnerability, Taylor draws attention to the forces that lie behind vulnerabilisation in drought-prone villages in India.⁴⁷ During a drought, those with greater access to credit, land and technologies (such as landlords, merchants and higher caste groups) extend their control of dwindling water sources. Poorer households become increasingly dependent on wealthier households that control water sources. Accordingly, the poor are driven into debt and marginalisation, attempting to seek out a living. As he argues, climate change can “empower some – opening new strategies of consolidating wealth and influence – while pushing others into greater levels of dependency and vulnerability”.⁴⁸ Taylor argues that common adaptation policy strategies, such as groundwater management schemes, can only enhance farmers and groundwater users' knowledge of water levels. They have limited use in overturning the fact that some groups control the water in a region and others do not, which drive vulnerability in the context of climate change. Accordingly, most critical in vulnerability reduction is transforming the underlying relations of dependency, such as between landlords and landless (as groundwater access in India is based on land ownership). These unequal interdependent power relationships are mediated by laws, policies, social relations, and ecological processes. Accordingly, measures that seek to democratise power relations, recast land ownership and tenure, labour rights, reformulate debt relations could be seen as measures based upon a relational framing of vulnerability reduction.⁴⁹

2.3. *Framing climate vulnerability and its relevance for litigation*

The above discussion affects what issues are deemed climate-relevant and incorporated in academic literature on climate litigation and strategic litigation interventions. Put differently, how climate change and vulnerability are framed is significant to how issues are debated, disputed and the policies and solutions put forward. The social vulnerability framing demands a broader scope of issues relevant to climate change and its material impacts on people's lives. While authors have taken different stances on what counts as climate litigation, for the most part, climate litigation scholarship has had a narrow focus on cases that only incorporate climate language.⁵⁰ In this paper, I argue that the narrow approach demands reconsideration, particularly in the context of climate vulnerability.

There are two reasons for reconsidering the scope of climate litigation. First, the political discourse of climate change in many countries necessitates that climate language is often not incorporated into cases discussing ‘climate impacts’. In India, concerns around freshwater scarcity, floods, droughts and other environmental and development challenges are not generally articulated in climate language.⁵¹

⁴⁷ Taylor, *The Political Ecology of Climate Change Adaptation* (n 17) 143–165.

⁴⁸ Taylor and Bhasme (n 20) 2.

⁴⁹ Mikulewicz (n 13).

⁵⁰ Setzer and Vanhala (n 10) 3.

⁵¹ Pradip Swarnakar, ‘Climate Change, Civil Society, and Social Movement in India’ in Navroz K Dubash (ed), *India in a Warming World: Integrating Climate Change and Development* (Oxford University Press 2019) 254.

Climate change has historically been seen as a foreign policy issue. The notion of climate justice within the country has been about India's position as a developing country in the UN climate negotiations.⁵² The absence of climate language in raising such issues is evident across other countries in the Global South. As commentators have noted, climate issues in the Global South are either brought into litigation as a peripheral issue, or by stealth, or avoided altogether.⁵³ But, as explained below, this does not mean climate change is not a live issue in the courts today.

Second, how climate change materialises 'on the ground' is through interactions between meteorological factors (such as excessive rain or heat) and socio-political factors.⁵⁴ The issues on the ground – hunger and thirst from drought, a loss of livelihoods, dispossession of land, debt – are all central to the materialisation of climate change. The social vulnerability framing, as described above, provides us the analytical framing to consider these issues. Litigation around land, credit, water rights, disaster management, and many other processes are thus relevant in different contexts. These issues are often the subject of smaller, more discrete disputes, void of climate language. Nevertheless, they still have an active role in shaping vulnerability and rights issues.

Accordingly, this paper questions the narrow focus of climate litigation scholarship to date. This narrow focus has meant a paucity of climate adaptation and vulnerability reduction litigation discussed from the Global South.⁵⁵ A more nuanced understanding of vulnerability is providing the tools to engage with different types of 'climate litigation'. The following section identifies and analyses litigation in India that can be viewed from a vulnerability lens using the frameworks introduced in this section.

3. Litigation in the context of climate vulnerability in India

This section examines three different areas of litigation in the context of climate vulnerability. The first part examines litigation on droughts, which are projected to increase with climate change. The second part looks at land conflicts and litigation, specifically examining land conflicts around renewable energy projects. The final type of litigation concerns agricultural debt, which has become an intense socio-political issue in India. This article does not aim to 'map' litigation. Hence, this is not an exhaustive account of litigation relevant to these questions or areas. Instead, this section aims to identify the types of litigation relevant from a vulnerability and rights perspective, drawing upon the discussion above. It analyses the opportunities and limitations of such litigation and how the analytical tools provided through a social vulnerability framework, in particular, can be utilised in the future.

⁵² Susannah Fisher, 'The Emerging Geographies of Climate Justice' (2015) 181 *The Geographical Journal* 73; Swarnakar (n 51) 267.

⁵³ Peel and Lin (n 2) 716; Setzer and Benjamin (n 12) 59–60.

⁵⁴ Taylor, *The Political Ecology of Climate Change Adaptation* (n 17) 26–48.

⁵⁵ Peel and Lin (n 2) 716.

The cases here focus on domestic law and litigation. However, it is important to keep in mind that states have international obligations to address climate vulnerability. States have legal obligations to “address [climate-related] vulnerabilities in accordance with the principle of equality and non-discrimination”.⁵⁶ It has been noted that these principles require states to identify marginalised or vulnerable individuals and communities and “tackle underlying power imbalances and structural causes of ‘differential vulnerability’ within and between households”.⁵⁷ Accordingly, the sections below emphasise how structural causes can be addressed. While the focus here is on domestic litigation and vulnerability, international law also places obligations on developed countries to provide financial resources and support to developing countries, such as India, on adaptation.⁵⁸ The nature of these disputes are local, however they operate within this broader international law and policy context.

3.1. *Drought and climate vulnerability in the courts*

Nearly half of India was under various degrees of drought in 2019.⁵⁹ At the same time, there have been increasingly severe, persistent floods across the country.⁶⁰ These extremities will become worse in the coming decades.⁶¹ These climatic processes weave into the broader context of an agrarian economic crisis in India that has seen, in recent years, growing protest by farmers.⁶² The courts in India have become an important forum to challenge the governance of such climate disasters. Litigation has been a strategy to try to reduce vulnerability from the devastating droughts across the country.

In *Swaraj Abhiyan v Union of India*, a civil society organisation filed a public interest litigation after delays and refusals by several state (sub-national) governments to declare a drought.⁶³ The declaration of drought is often a highly politicised decision, and state governments can delay such a declaration to avoid

⁵⁶ UN Human Rights Council, ‘Report of the Office of the United Nations High Commissioner for Human Rights on the Relationship Between Climate Change and Human Rights’ (2009) U.N. Doc. A/HRC/10/61.

⁵⁷ Aled Dilwyn Fisher, ‘A Human Rights-Based Approach to the Environment and Climate Change’ (2014) GI-ESCR Practitioner’s Guide 5 <<https://www.gi-escr.org>> accessed 1 June 2021.

⁵⁸ United Nations Framework Convention on Climate Change 1992 (1771 UNTS 1071249 UNTS 13) Article 4; Paris Agreement under the United Nations Framework Convention on Climate Change 2015 Article 7.

⁵⁹ Shagun Kapil, ‘Drought Watch: More than 44% of India Now Suffers’ [2019] *Down to Earth* <<https://www.downtoearth.org.in/news/climate-change/drought-watch-more-than-44-of-india-now-suffers-65127>> accessed 13 July 2019.

⁶⁰ MK Roxy and others, ‘A Threefold Rise in Widespread Extreme Rain Events over Central India’ (2017) 8 *Nature Communications* 708; Deepti Singh and others, ‘Observed Changes in Extreme Wet and Dry Spells During the South Asian Summer Monsoon Season’ (2014) 4 *Nature Climate Change* 456.

⁶¹ J Srinivasan, ‘Impacts of Climate Change on India’ in Navroz K Dubash (ed), *India in a Warming World: Integrating Climate Change and Development* (Oxford University Press 2019); Indian Network for Climate Change Assessment (INCCA), *Climate Change and India: A 4x4 Assessment A Sectoral and Regional Analysis for 2030s* (Ministry of Environment & Forests 2010).

⁶² Nairita Chaudhuri, ‘Social Movements and Grassroots Discourse of Climate Justice in the Context of Droughts in Semi-Arid Regions: A Case Study in India’ [2020] *Oñati Socio-Legal Series* <<https://onatifirstonline.wordpress.com/2020/11/26/social-movements-and-grassroots-discourse-of-climate-justice-in-the-context-of-droughts-in-semi-arid-regions-a-case-study-in-india-nairita-roy-chaudhuri/>> accessed 27 January 2021.

⁶³ *Swaraj Abhiyan (V) v Union of India & Ors* (2015) W.P (C) 857.

providing compensation and relief.⁶⁴ These delays can devastate marginalised communities, which are pushed towards the edge. In *Swaraj Abhiyan*, the Supreme Court provided a comprehensive set of orders on these matters, passing six separate judgements from the single petition to the court.⁶⁵

The Supreme Court bemoaned the “ostrich-like attitude” of state governments whose actions affected the marginalised most severely.⁶⁶ The court states that “the sound of silence coming from these States subjects the vulnerable to further distress”.⁶⁷ To address the delays in declaring droughts, the Court ordered an update to how a drought was classified and declared, to better reflect the new drought management practices and technologies.⁶⁸ The Court highlighted that droughts were not just about ‘rainfall deficit’.⁶⁹ Here the judgement demonstrated a shift away from a hazards approach. The Court wanted adequate attention also to be paid to aspects such as declining surface and groundwater levels, which have significantly diminished, partly due to inadequate regulation and overexploitation.⁷⁰ The judgment ordered a revision of the methodology for declaring droughts, aimed to incorporate the complexity of how droughts manifest and reduce the “elbow room” of discretion by each state-level government.⁷¹

The Court also issued significant directions around poverty alleviation and social welfare in the face of droughts. The directions demonstrated a human security approach to drought response and climate vulnerability, reflecting that vulnerability is caused by changing climate conditions, structural poverty, food distribution and access, or the “contextual conditions” of vulnerability.⁷² The Court universalised India's targeted food provision scheme under the National Food Security Act, 2013, which

⁶⁴ Jitendra, ‘Farmers Suffer as States yet to Declare Drought’ [2018] *Down to Earth* <<https://www.downtoearth.org.in/news/agriculture/farmers-suffer-as-states-yet-to-declare-drought-62079>> accessed 22 April 2020.

⁶⁵ *Swaraj Abhiyan (I) v Union of India & Ors* (2016) 7 SCC 498 (11 May 2016); *Swaraj Abhiyan (II) v Union of India & Ors* (2016) AIR SC 2953 (13 May 2016); *Swaraj Abhiyan (III) v Union of India & Ors* (2016) 7 SCC 544 (13 May 2016); *Swaraj Abhiyan (IV) v Union of India & Ors* (2015) W.P (C) 857 (13 May 2016, Supreme Court of India); *Swaraj Abhiyan (V) v Union of India & Ors* (2015) W.P (C) 857 (21 July 2017, Supreme Court of India); *Swaraj Abhiyan (VI) v Union of India & Ors* (2015) W.P (C) 857 (18 May 2018, Supreme Court of India)

⁶⁶ *Swaraj Abhiyan (I)* (n 63) [1].

⁶⁷ *Swaraj Abhiyan (I)* (n 63) [1].

⁶⁸ This was the *Manual for Drought Management*, 2009 (Department of Agriculture, Cooperation & Farmers Welfare).

⁶⁹ *Swaraj Abhiyan (I)* (n 63) [39-44].

⁷⁰ Philippe Cullet, Lovleen Bhullar and Sujith Koonan, ‘Regulating the Interactions Between Climate Change and Groundwater: Lessons From India’ (2017) 42 *Water International* 646; Philippe Cullet, Lovleen Bhullar and Sujith Koonan, ‘Inter-Sectoral Water Allocation and Conflicts’ (2015) *I Economic and Political Weekly* 61.

⁷¹ *Swaraj Abhiyan v Union of India & Ors* (2016) 7 SCC 498 (Supreme Court of India) [101].

⁷² O’Brien and others (n 35) 76.

was enacted to uphold the right to food.⁷³ It ordered that all households were eligible for food rations, and midday meals for children were expanded to include more nutrition and over drought-prone summer months. It rejected government contentions about fiscal constraints as a reason for denying relief in drought-affected areas.⁷⁴

The orders reflects the ‘vulnerability-poverty’ linkage that human security framings aim to address and how the realisation of socio-economic rights is vital in a climate context.⁷⁵ In order to reduce vulnerability, the court essentially expanded welfare schemes. However, some aspects also demonstrate the weakness of the human security framing. For instance, as mentioned, the court made significant changes to drought declaration processes. However, power was not taken away from the state (both national and sub-national governments) and wrested within a top-down system. A few years on, this has led to little fundamental change in improving the delays to drought declaration, as states revised policies and made the process as difficult.⁷⁶

On the other hand, some aspects show the potential for more transformative shifts in reducing climate vulnerability through litigation. For instance, the court issued several directions around the Mahatma Gandhi National Rural Employment Guarantee Act (NREGA), based upon protecting the constitutional rights to life, right to food, and right to livelihood.⁷⁷ NREGA is India’s flagship rural employment scheme, providing 100 days of guaranteed work in a year for every rural household at a minimum wage. It has been identified as critical to rural vulnerability reduction and climate adaptation.⁷⁸ For instance, the scheme employs rural people to work on water conservation measures in drought-prone areas.⁷⁹ In this case, the court responded to late payment of wages under the scheme, a widely reported grievance.⁸⁰ Delays can have fatal ramifications on lives and livelihoods, particularly during a drought.

From a relational vulnerability perspective, NREGA offers the potential to break from exploitative power relations that cause climate vulnerabilisation through a guaranteed right to work. Indeed, research

⁷³ Raghav Puri, ‘India’s National Food Security Act (NFSA): Early Experiences’ (2017) Lansa Working Paper Series 14 <<https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/13040/NFSA-LWP.pdf?sequence=1&isAllowed=y>> accessed 31 January 2020.

⁷⁴ *Swaraj Abhiyan (II)* (n 63) [23].

⁷⁵ Eriksen and O’Brien (n 41) 346.

⁷⁶ Nidhi Jamwal, ‘India’s Criteria for Classifying Drought-Hit Regions Are Causing Many Cases to Go Unreported’ *Scroll.in* (27 January 2018) <<https://scroll.in/article/866262/indias-criteria-for-classifying-drought-hit-regions-are-causing-many-cases-to-go-unreported>> accessed 12 June 2021.

⁷⁷ *Swaraj Abhiyan (I)* (n 63) [2].

⁷⁸ Fisher (n 57); Taylor, ‘Climate Change, Relational Vulnerability and Human Security: Rethinking Sustainable Adaptation in Agrarian Environments’ (n 7).

⁷⁹ G Ram Mohan, ‘Secure from Drought: How MGNREGA Changed Lives in Bandlapalli’ [2021] *Down to Earth* <<https://www.downtoearth.org.in/news/water/secure-from-drought-how-mgnrega-changed-lives-in-bandlapalli-75967>> accessed 1 June 2021.

⁸⁰ Rajendran Narayanan, Sakina Dhorajiwala and Rajesh Golani, ‘Analysis of Payment Delays and Delay Compensation in MGNREGA: Findings Across Ten States for Financial Year 2016–2017’ (2019) 62 *The Indian Journal of Labour Economics* 113.

has shown that its most notable effects are the inadvertent consequences on power relations within a climate-stressed rural environment.⁸¹ NREGA has shown to increase rural wages, provide access to regular and predictable employment, reduce labour migration, decrease hunger, and, for women, in particular, access to minimum wages and an ability to purchase productive assets.⁸² Implementation is an issue however, and a lack of political will, administrative capabilities and engagement with civil society in some states are seen as reasons for not succeeding.⁸³ But, where successfully implemented, Jakimow finds that both labourers and landowners perceive NREGA to have partly shifted power to labourers, including to low-caste and female labourers.⁸⁴ Jakimow suggests that although NREGA is not directly transformational in itself, it has the potential to “facilitate conditions” in which more transformative power structures are challenged from the bottom.⁸⁵ Taylor argues that an expanded set of demands from NREGA, increasing the number of guaranteed work days, building in representative participation of communities into all aspects of the programme’s implementation is necessary to turn it into a truly transformative vehicle to reduce climate vulnerability.⁸⁶

Undoubtedly, the Supreme Court’s directions to address late payment of wages are only one part of such transformation. Nevertheless, the overall point is that if climate vulnerability is viewed from a relational perspective, strategic litigation targeting schemes such as NREGA offers a potentially transformative role in helping individuals and communities adapt and break the chains of vulnerabilisation.

3.2. *Land disputes, renewable energy and climate vulnerability*

Solar energy has a central role in India’s climate strategy.⁸⁷ India has a goal of 450 GW of solar by 2030.⁸⁸ Under the Paris Agreement, developing countries such as India should continue to enhance their

⁸¹ Taylor, ‘Climate Change, Relational Vulnerability and Human Security: Rethinking Sustainable Adaptation in Agrarian Environments’ (n 7) 324. See also: Rachel Godfrey-Wood and Benjamin CR Flower, ‘Does Guaranteed Employment Promote Resilience to Climate Change? The Case of India’s Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)’ (2018) 36 Development Policy Review O586.

⁸² Tanya Jakimow, ‘“Breaking the Backbone of Farmers”: Contestations in a Rural Employment Guarantee Scheme’ (2014) 41 The Journal of Peasant Studies 263, 278.

⁸³ Godfrey-Wood and Flower (n 81); Puja Dutta and others, ‘Right to Work? Assessing India’s Employment Guarantee Scheme in Bihar’ (World Bank Group 2014) <<https://documents1.worldbank.org/curated/en/104331468266411269/pdf/Right-to-work-assessing-Indias-employment-guarantee-scheme-in-Bihar.pdf>> accessed 1 June 2021.

⁸⁴ Jakimow (n 82).

⁸⁵ *ibid* 279.

⁸⁶ Taylor, ‘Climate Change, Relational Vulnerability and Human Security: Rethinking Sustainable Adaptation in Agrarian Environments’ (n 7) 324.

⁸⁷ Ministry of Environment Forests and Climate Change, ‘India’s Intended Nationally Determined Contribution: Working Towards Climate Justice’ (2015) <Available from: <https://www4.unfccc.int/sites/submissions/indc/Submission%20Pages/submissions.aspx>> accessed 5 August 2020.

⁸⁸ *ibid*.

mitigation efforts, moving towards economy-wide emission reduction targets.⁸⁹ India has also been leading global co-operation efforts to enhance solar energy production.⁹⁰ These international law and policy drivers are coupled with dramatic shifts in the costs of solar energy production.⁹¹ However, despite the ostensibly positive developments at mitigating emissions and decarbonising, a more complex reality exists on the ground. Ground-mounted solar projects require far more land than wind.⁹² Land is identified as a critical constraint to India's ambitious solar programme.⁹³ Renewable energy generation projects, both in India and elsewhere, have created land conflicts.⁹⁴ These conflicts are caused primarily by dispossessing commons land from the rural population, stripping communities of their means of production and subsistence and creating rights issues. Despite this, the Government of India has exempted solar parks from requiring minimum environmental and social safeguards like Environmental Impact Assessments, ostensibly to spur investment.⁹⁵

In recent years, the courts in India have seen numerous cases concerning land disputes that stem from renewable energy development. In one single state, Rajasthan, there have been at least 15 cases since 2011.⁹⁶ Fatehgarh Ultra Mega Solar Park, a 1500 MW solar park and the second-largest planned ground-mounted solar development in the world, is the most prominent example.⁹⁷ A group of farmers who had lost land to the solar park petitioned the High Court of Rajasthan in 2019.⁹⁸ The petitioners emphasised, among other things, the loss of land that was used for grazing purposes. These lands were commons lands, not held under an individual title per se. However, it was asserted in the court that they were used

⁸⁹ Article 4(4)

⁹⁰ For instance, through co-founding the International Solar Alliance (ISA) with France. The ISA was launched in Paris during COP21 in 2015, comprising of 120 countries, and is the first intergovernmental organisation based in India.

⁹¹ Simon Evans, 'Solar Is Now "Cheapest Electricity in History", Confirms IEA' (*Carbon Brief*, 13 October 2020) <<https://www.carbonbrief.org/solar-is-now-cheapest-electricity-in-history-confirms-iea>> accessed 14 June 2021.

⁹² Manish Kumar Hairat and Sajal Ghosh, '100 GW Solar Power in India by 2022 – A Critical Review' (2017) 73 *Renewable and Sustainable Energy Reviews* 1041; Joseph Kiesecker and others, 'Renewable Energy and Land Use in India: A Vision to Facilitate Sustainable Development' (2019) 12 *Sustainability* 281.

⁹³ Hairat and Ghosh (n 92); Kiesecker and others (n 92).

⁹⁴ Lorenzo Cotula, 'The International Political Economy of the Global Land Rush: A Critical Appraisal of Trends, Scale, Geography and Drivers' (2012) 39 *The Journal of Peasant Studies* 649.

⁹⁵ Mayank Aggarwal, 'Government Eases Environmental Clearance Rules for Solar Power Projects, Parks' (*Mint*, 22 August 2017) <<https://www.livemint.com/Politics/QW4cJ9yjhmVUtOZCPyOt3J/Govt-eases-environment-clearance-rules-for-solar-projects.html>> accessed 14 June 2021.

⁹⁶ Mridula Chari, 'How Solar Farms Fuel Land Conflicts' *Mint* (21 September 2020) <<https://www.livemint.com/news/india/how-solar-farms-fuel-land-conflicts-11600612526037.html>> accessed 1 January 2021.

⁹⁷ 'The World's Biggest Solar Power Plants' [2020] *PowerTechnology* <<https://www.power-technology.com/features/the-worlds-biggest-solar-power-plants/>> accessed 5 December 2020.

⁹⁸ *Chanesar Khan v State and Ors*, Civil Writ Petition No. 5707/2018, Rajasthan High Court (Judgement, 27 November 2019).

previously for agricultural purposes, despite their classification as ‘waste land’.⁹⁹ Thus, the case concerned a change in land use from agricultural land and whether this was permitted. The court, at first instance, dismissed the petitioners claim outright.¹⁰⁰ However, on appeal in 2020, the court has stayed all construction of the Fatehgarh Solar Park.¹⁰¹

The grievances can often bring to light procedural irregularities. In *Saldhana v Union of India & Ors*¹⁰², the conversion of extensive grasslands into, amongst other things, a large solar park was the subject of dispute. The lands in question were rich in biodiversity, had distinctive ecological attributes, and traditionally supported local communities’ subsistence and livelihood activities.¹⁰³ The petitioners brought a long list of irregularities and secrecy in the acquisition process to the Tribunal’s attention. The Tribunal temporarily halted all development, saying that the project might only move forward if it was in accordance with terms of the permit and transparent.¹⁰⁴ Other petitions, however, have been less successful. The court has often overlooked livelihood and ecology concerns in the name of climate mitigation. For instance, the Rajasthan High Court stated, “renewable energy is the mantra of the day because it is environmentally friendly” in dismissing a petition.¹⁰⁵

In many of these cases, individuals and communities are losing their livelihoods from land acquisition. This is the single most crucial grievance for petitioners.¹⁰⁶ In climate-stressed regions like Rajasthan, research has shown that communities dispossessed of land often face distress migration, debt, and vulnerability to exploitative labour.¹⁰⁷ Climate mitigation projects are thus enveloped within these wider ecological and structural constraints that have a spiralling impact on the ability of individuals and communities to adapt. Litigation ‘against’ renewable energy development in the Global North is often about visual and landscape amenity.¹⁰⁸ However, the material concerns of individuals and communities

⁹⁹ On the terminology of waste land in India, see: Jennifer Baka, ‘The Political Construction of Wasteland: Governmentality, Land Acquisition and Social Inequality in South India’ (2013) 44 *Development and Change* 409.

¹⁰⁰ *ibid.*

¹⁰¹ *Barkat Khan v State of Rajasthan*, Spl. Appl. Writ No. 51/2020, Rajasthan High Court (Judgement, 8 September 2020).

¹⁰² *Leo Saldhana v Union of India*, Application No. 6/2013 (SZ), National Green Tribunal (Judgement, 27 August 2014).

¹⁰³ Gitanjali Nain Gill, *Environmental Justice in India: The National Green Tribunal* (Routledge 2017) 137.

¹⁰⁴ *ibid.*

¹⁰⁵ *Gyan Singh v State of Rajasthan* Civil Write Petition No 311/2019, Rajasthan High Court, Jodhpur (Judgement, 10 January 2019). On this point, see also: Birsha Ohdedar, ‘Climate Change Litigation in India and Pakistan: Analyzing Opportunities and Challenges’ in Ivano Alogna, Christine Bakker and Jean-Pierre Gauci (eds), *Climate Change Litigation: Global Perspective* (BRILL 2021) 116–118.

¹⁰⁶ Komali Yenneti, Rosie Day and Oleg Golubchikov, ‘Spatial Justice and the Land Politics of Renewables: Dispossessing Vulnerable Communities through Solar Energy Mega-Projects’ (2016) 76 *Geoforum* 90.

¹⁰⁷ Michael Levien, ‘The Land Question: Special Economic Zones and the Political Economy of Dispossession in India’ (2012) 39 *The Journal of Peasant Studies* 933; Natarajan, Brickell and Parsons (n 17).

¹⁰⁸ Natalie Jones, ‘Wind Energy and Adverse Visual-Impact Litigation: A Balance of Global and Local Interests?’ (2016) 6 *Climate Law* 336.

in the Global South demonstrate that conflicts around renewables are about climate vulnerability and adaptation.¹⁰⁹

These cases can be read as attempts to subvert vulnerabilisation and the power structures between the state, the developer, and land users. However, the cases discussed above are also primarily defensive measures, last-ditch attempts to prevent acquisition. Of course, every decision can have far-reaching consequences for parties beyond that discrete dispute and can change how investors and developers view risks for large solar parks.¹¹⁰ Nevertheless, there is yet to be a case (or a series of cases) that more substantively tries to use rights-based litigation as a tool to transform the relationships that cause such vulnerabilisation.

Strategically, framing the issues through a vulnerability lens opens up possibilities of how to transform these processes. A relational vulnerability perspective, in particular, invites us to think about litigation that may structurally intervene and, for instance, democratise land relations and project development. Yenneti and Day highlight the procedural injustices in the acquisition and development of solar parks in Western India¹¹¹. They demonstrate how the most marginalised communities (smallholder farmers, nomadic people) suffer the most due to a lack of formal legal title, lack of information, participation, or the need for consent. Levien argues that the state, in these situations, often acts as a “land broker” for private capital to overcome the rigid supply of land controlled by a large number of small peasants.¹¹² There are also critical distributional issues as local communities never benefit from the energy generated by the solar parks¹¹³. Strategically utilising India’s rights framework to seek democratising project planning, land redistribution, free prior informed consent, can be an approach to transforming the power relations and unequal structures that create vulnerabilisation from large-scale solar development.¹¹⁴

3.3. *Agricultural debt, climate vulnerability and litigation*

¹⁰⁹ Yenneti, Day and Golubchikov (n 106); Maria Backhouse and Rosa Lehmann, ‘New “Renewable” Frontiers: Contested Palm Oil Plantations and Wind Energy Projects in Brazil and Mexico’ (2020) 15 *Journal of Land Use Science* 373; P Velasco Herrejon and Annalisa Savaresi, ‘Wind Energy, Benefit-Sharing and Indigenous Peoples: Lessons from the Isthmus of Tehuantepec, Southern Mexico’ [2019] *Oil, Gas & Energy Law Journal (OGEL)* <<https://www.ogel.org/journal-advance-publication-article.asp?key=604>> accessed 1 February 2020.

¹¹⁰ Bouwer (n 11) 501; Kiesecker and others (n 92).

¹¹¹ Komali Yenneti and Rosie Day, ‘Procedural (in)Justice in the Implementation of Solar Energy: The Case of Charanaka Solar Park, Gujarat, India’ (2015) 86 *Energy Policy* 664.

¹¹² Levien (n 107) 941.

¹¹³ Komali Yenneti and Rosie Day, ‘Distributional Justice in Solar Energy Implementation in India: The Case of Charanka Solar Park’ (2016) 46 *Journal of Rural Studies* 35.

¹¹⁴ For instance, the Supreme Court has, in the case of forest land and indigenous people, made significant decisions to democratise the process of land acquisition in *Orissa Mining Corporation v Union of India & Ors* (2013) 6 SCC 476 (Supreme Court of India).

In recent years, debt issues among smallholder and marginal farmers, who account for 80 per cent of India's farmers, have risen on the political agenda.¹¹⁵ The earlier discussion on drought and land dispossession is interlinked as these events often lead to significant debt levels. Tragically, the level of debt and agricultural distress has led to thousands of farmers committing suicide every year.¹¹⁶ A climate stressed environment interweaves with debt, agrarian market reforms and other factors producing unequal climate vulnerability.¹¹⁷ Climate change is projected to drastically decrease the output of staple crops in India, such as rice, wheat and cereal grains.¹¹⁸ A social vulnerability framing brings to light the importance of addressing debt as a critical driver of vulnerabilisation in this context.

Since the 1990s, India has pursued an economy based on liberalised markets and urban growth. These shifts are linked also to processes at the international level, such as IMF structural adjustment programs, changes to international trade rules, the proliferation of agro-capitalism, and urban-led growth pushed by development banks.¹¹⁹ The liberalisation of agricultural markets has meant smallholder farmers, in particular, have been under pressure from rising costs and volatile market prices for their outputs without adequate levels of state support. Consequently, there is an overreliance on various forms of credit to maintain a basic livelihood.¹²⁰ Smallholder farmers, as Taylor explains, repeatedly borrow money to purchase agricultural inputs and lock themselves into "lopsided debt relations" with landed and merchant capital.¹²¹ Such relations mean certain groups become increasingly vulnerable, while others (those with land and credit) are relatively secure and profit from this distress. This is particularly the case during a climate-related event such as a flood or drought, where more impoverished households are forced into further dependence.¹²²

¹¹⁵ Saroj Singh, 'India Election 2019: Should Farmers' Debts Be Written off? - BBC News' *BBC News* (29 March 2019) <<https://www.bbc.com/news/world-asia-india-47540452>> accessed 10 January 2021; Sayantan Bera, 'Small and Marginal Farmers Own Just 47.3% of Crop Area, Shows Farm Census' *Livemint* (1 October 2018) <<https://www.livemint.com/Politics/k90ox8AsPMdyPDuykv1eWL/Small-and-marginal-farmers-own-just-473-of-crop-area-show.html>> accessed 10 January 2021.

¹¹⁶ AR Vasavi, 'Suicides and the Making of India's Agrarian Distress' (2009) 40 *South African Review of Sociology* 94.

¹¹⁷ Marcus Taylor, 'Liquid Debts: Credit, Groundwater and the Social Ecology of Agrarian Distress in Andhra Pradesh, India' (2013) 34 *Third World Quarterly* 691.

¹¹⁸ Jayatilleke S Bandara and Yiyong Cai, 'The Impact of Climate Change on Food Crop Productivity, Food Prices and Food Security in South Asia' (2014) 44 *Economic Analysis and Policy* 451.

¹¹⁹ Utsa Patnaik, 'Global Capitalism, Deflation and Agrarian Crisis in Developing Countries' (United Nations Research Institute for Social Development 2003) Social Policy and Development Programme Paper Number 15 <[https://www.unrisd.org/80256B3C005BCCF9/\(httpAuxPages\)/D7EE58F01E903B2FC1256DD60046E504/\\$file/patnaik.pdf](https://www.unrisd.org/80256B3C005BCCF9/(httpAuxPages)/D7EE58F01E903B2FC1256DD60046E504/$file/patnaik.pdf)> accessed 12 June 2021.

¹²⁰ Center for Human Rights and Global Justice, *Every Thirty Minutes: Farmer Suicides, Human Rights, and the Agrarian Crisis in India* (NYU School of Law 2011) 18 <<https://chrgj.org/wp-content/uploads/2016/09/Farmer-Suicides.pdf>> accessed 12 January 2021.

¹²¹ Taylor, 'Liquid Debts' (n 117) 694.

¹²² Taylor, 'Climate Change, Relational Vulnerability and Human Security: Rethinking Sustainable Adaptation in Agrarian Environments' (n 7).

The Center for Human Rights & Global Justice observes that the agrarian debt crisis implicates “the right to life; the right to an adequate standard of living; the right to work; the right to food; the right to water; the right to health; and the right to an effective remedy, among other rights”.¹²³ Unfortunately, the response by the Government of India to these human rights issues so far has been inadequate.¹²⁴ Given the lack of meaningful political action to deal with the debt issue in rural India, litigation has been used as a strategy and more direct action and protest to alleviate suffering and realise rights.

There are different ways petitioners have approached courts on agrarian debt issues relevant from a rights and vulnerability perspective. First, to waive farmer debts in a particular season. Sub-national governments have often enacted debt waivers after a drought to relieve pressure.¹²⁵ In *National South Indian v Tamil Nadu and Others*, aggrieved farmers took the state government to court for its selective loan waivers to only those with small landholdings.¹²⁶ Drawing on the right to equality, the High Court held that the distinction was arbitrary and extended the benefits to all parties irrespective of landholding.¹²⁷ On appeal, the Supreme Court stayed the High Court’s decision to waive farm loans, much to farmers and activists’ disappointment.¹²⁸

Second, courts have also been approached by petitioners to clamp down on unscrupulous behaviour by creditors. For example, in many drought-prone states, the practice of ‘naming and shaming’ farmers who carry significant debts has led to further vulnerabilisation and marginalisation. High Courts have passed orders to stop such coercive loan recovery.¹²⁹ Finally, courts have also been active in trying to push state policy on farm suicide and debt. For instance, after consecutive droughts and a spate of farm suicides in 2011, the Allahabad High Court *took suo motu* action on farmers’ suicides.¹³⁰ The court issued notices to the relevant ministries to report the causes of every suicide and the steps to provide relief to the farmers.¹³¹

¹²³ Center for Human Rights and Global Justice (n 120) 16.

¹²⁴ Center for Human Rights and Global Justice (n 120).

¹²⁵ Nilanjan Banik, ‘Are Loan Waivers a Panacea for Rural Distress?’ (2018) LIII Economic & Political Weekly 14.

¹²⁶ *National South Indian v The Government of Tamil Nadu*, W.P (MD) 18119 of 2016, Madras High Court (Madurai Bench) (Judgement, 4 April 2017).

¹²⁷ *ibid* [12].

¹²⁸ ‘Supreme Court Stays Madras High Court Order on Farmer Loans’ *The Financial Express* (3 July 2017) <<https://www.financialexpress.com/india-news/supreme-court-stays-madras-high-court-order-on-farmer-loans/747015/>> accessed 1 February 2021.

¹²⁹ Priyanka Kotamraju, Pavithra Chandrasekhar and Anshu Lalit, ‘Named and Shamed: In Uttar Pradesh, Debt-Ridden Farmers Have Their Backs to the Wall’ *Scroll.in* (3 November 2016) <<http://scroll.in/article/819958/named-and-shamed-in-uttar-pradesh-debt-ridden-farmers-have-their-backs-to-the-wall>> accessed 10 January 2021.

¹³⁰ AK Verma, ‘Farmers’ Suicides and Statehood Demand in Bundelkhand’ (2011) 46 Economic & Political Weekly 10.

¹³¹ *ibid*.

A social vulnerability perspective allows us to understand the relevance of debt (and, in turn, litigation over debt) as a driver for climate vulnerability. Such cases serve as a way of mediating relations ‘on the ground’, empowering certain actors, and disempowering others in an ongoing socio-ecological process of vulnerabilisation. However, we can also observe how the relief sought by petitioners fit into different vulnerability framings. For instance, although temporary debt relief can be vital in the context of a distressed and over-indebted farmer population, it does not fundamentally transform the relations that produce this debt crisis. Thus, it can be observed as a form of social welfare that provides immediate (but necessary) relief until the next cycle. Loan waivers also do not generally benefit the poorest and most marginalised in rural India, as they apply to those with institutional credit through state banks. Landless and smallholder farmers are generally do not qualify for such loans. Hence, these communities are more dependent on microfinance, as well as usurious moneylenders, and forms of exploitative credit.¹³² Though cases that petition for loan waivers can be a vital adaptation strategy on a piecemeal basis, they are not a long-term solution to structural drivers of vulnerabilisation.

On the other hand, a relational understanding of vulnerability invites us to strategise transforming debt relations. The examples of cases above show piecemeal reforms, focusing on aspects such as unscrupulous behaviour by creditors. The challenge is whether litigation can more comprehensively intervene to regulate rural credit markets. Taylor, Natarajan and Others have revealed in their work the asymmetry of relations between lenders and the rural poor that drives climate vulnerability.¹³³ Formal rural lending schemes are often more stringent with repayment, interest, and other aspects that create obstacles during droughts, floods, and other climate-driven contexts.¹³⁴ This forces households to often rely on more informal credit, or bonded labour, to repay loans, driving the cycle of debt.¹³⁵ In addition to the cases above, recently the courts have intervened to provide moratoriums on repayments of small loans, such as microfinance due to the COVID-19 pandemic.¹³⁶ This reflects an acknowledgement, stated or otherwise, that during a disaster or crises financialisation among the poor adversely impacts livelihoods and rights. The courts are a forum that can be used to intervene in these situations, transform relations and protect rights through regulating industries such as microfinance that have been left unregulated and relied upon by the poor.¹³⁷

¹³² Center for Human Rights and Global Justice (n 120) 10; ‘No Panacea for Agrarian Distress’ (2017) 52 *Economic & Political Weekly*.

¹³³ Taylor, ‘Liquid Debts’ (n 117); Natarajan, Brickell and Parsons (n 17).

¹³⁴ Isabelle Guérin and G Venkatasubramanian, ‘The Socio-Economy of Debt. Revisiting Debt Bondage in Times of Financialization’ [In press] *Geoforum*.

¹³⁵ *ibid*; Natarajan, Brickell and Parsons (n 17).

¹³⁶ Elizabeth Rhyne and Eric Duflos, ‘Debt Relief in the Pandemic: Lessons from India, Peru, and Uganda’ (CGAP 2020) 5 <https://www.cgap.org/sites/default/files/publications/2020_12_COVID_Briefing_Debt_Relief.pdf> accessed 1 June 2021.

¹³⁷ On the lack of regulation of microfinance see: Philip Mader, ‘Rise and Fall of Microfinance in India: The Andhra Pradesh Crisis in Perspective’ (2013) 22 *Strategic Change* 47.

4. Conclusion

As climate change intensifies in countries worldwide, millions of lives in the Global South face a disproportionate burden of adaptation and vulnerability. As this article has argued, such vulnerability is not just because of the biophysical impacts of climate change. Instead, these biophysical impacts are embedded in broader socio-political processes. The vulnerability framings discussed above provide us the analytical tools for further research and legal activism to overturn processes of vulnerabilisation.

While the hazards framing may remain important in some contexts, this article focussed primarily on a social vulnerability framing. The two subsets of the social vulnerability approach led to distinct questions about what types of litigation may be most impactful to overturn processes of vulnerabilisation. A human security framing, focuses on poverty alleviation, welfare, and institutional responses. This includes holding governments accountable for operationalising existing laws and policies that further human security and synergise different institutional actors towards climate vulnerability action.¹³⁸ Undoubtedly, if successful, these policies are important to reduce vulnerabilisation and realise human rights. However, as relational vulnerability scholarship argues, human security approaches do not go far enough to break the power asymmetries and structures that lead to such vulnerabilisation. Judgements that merely go back to state institutions to redress their wrongs do not transform the unequal power relations that, in many instances, drive vulnerability. Relational vulnerability authors argue that strategies should aim to democratise adaptation strategies, regulate debt relations, enable marginalised groups to organise (for instance, landless workers) or address unequal property rights over particularly important resources (for instance, water). The cases explored in India demonstrated both challenges and opportunities that arise. The utility of these framings can be used by lawyers and civil society groups to make strategically impactful litigation choices.

Climate litigation scholars have acknowledged that adaptation litigation is often unnoticed and there is need to examine “smaller cases at lower levels of governance” that are relevant and through our scholarship “render the invisible visible”.¹³⁹ The discussion above showed examples of litigation in India that were relevant for vulnerability yet were not expressly argued on climate grounds. Informed by a sound critical and analytical framework on climate vulnerability, researchers examining litigation and law can also begin to unpack the issues in different regions, across different scales, that drive vulnerability. This could be a step towards a more pluralistic, global and interdisciplinary understanding of vulnerability and the litigation opportunities therein. This article hopes to be a steppingstone towards new research questions, agendas, and litigation strategies that can be formulated to address climate vulnerability, adaptation and realise human rights.

¹³⁸ Setzer and Benjamin (n 2) 20–22.

¹³⁹ Bouwer (n 11) 502.