

CLIMATE CHANGE AND CLIMATE JUSTICE. Edited by Subhram Rajkhowa and Sriparna Rajkhowa, Satyam Books Pvt. Ltd., Jaipur, 2023. ISBN: 978-93-91122-45-7.

CLIMATE CHANGE is no longer a far-off warning—it's happening now. Since the last few decades, the inexorable progression of climate change, characterized by intensifying meteorological anomalies—floods, droughts, and cyclonic disturbances—has precipitated a global crisis of unprecedented magnitude.¹ Scientific consensus, crystallized since the 1970s, has unequivocally attributed this phenomenon to anthropogenic interference, forecasting irreversible change in climatic patterns. Yet, the global response, as evidenced by the trajectory from the 1992 United Nations Framework Convention on Climate Change (UNFCCC) to the Kyoto Protocol's binding commitments and the Paris Agreement's diluted, voluntary framework, reveals a persistent prioritization of economic imperatives over environmental exigency.² This inertia underscores a profound failure of legal and policy frameworks to accord climate change the precedence it demands, rendering humanity perilously unprepared for its cascading impacts.

Against this backdrop, *Climate Change and Climate Justice*, edited by S. Rajkhowa and S. Rajkhowa, emerges as a significant contribution to the discourse on environmental governance. Published at a pivotal moment when the global community confronts the climate crisis with belated urgency, the volume transcends conventional environmental narratives by foregrounding *climate justice*—a normative paradigm that interrogates the ethical and distributive dimensions of climate impacts. The book posits that climate change, while universal in scope, manifests disproportionately, exacerbating vulnerabilities in regions and communities marginalized by historical inequities, colonial legacies, and global economic architectures. The Global South, in particular, bears the brunt of ecological degradation despite contributing minimally to greenhouse gas emissions, a disparity rooted in the disproportionate carbon footprints of industrialized nations. Climate justice, as articulated here, demands equitable responses that address these asymmetries, ensuring that adaptation and mitigation strategies prioritize the most vulnerable while holding historical emitters accountable.

Comprising 19 Chapters authored by a diverse cadre of academics, jurists, and civil society advocates, the volume adopts a multidimensional approach, synthesizing scientific, ethical, legal, and policy perspectives. Crucially, the book not only diagnoses the structural inequities perpetuating climate injustice but also proposes actionable pathways for redress, from technological innovations to community-driven adaptation.

1 Shiv Bolan, Lokesh P. Padhye, et.al., "Impacts of climate change on the fate of contaminants through extreme weather events" 909 *Science of The Total Environment* (2024).

2 Saurabh Thakur, "From Kyoto to Paris and Beyond: The emerging politics of climate change" 77 *India Quarterly* 366 (2021).

This review organizes the chapters thematically, elucidating their contributions to the discourse on climate change and climate justice, while highlighting their emphasis on equitable solutions to mitigate and adapt to environmental crises.

The opening chapters establish a theoretical and empirical foundation, situating climate change within ethical, scientific, and historical frameworks.

Brijendra Prasad Kartikey's "Impact of Coal Mining on Ecology and Environment of Assam: A Situational Analysis" provides a granular examination of extractive industries' ecological toll in Northeast India.³ Kartikey documents how coal mining in Assam exacerbates soil erosion, acidifies water bodies, and decimates biodiversity. His work has also highlighted the rampant illegal coal mining in various parts of Assam and its adverse impact on the environment.

Furqan Ahmed and Vikram Singh's "Demystifying Climate Change: Justice and Development" interrogate the nexus between climate impacts and socio-economic disparities.⁴ By framing climate change as a developmental crisis, the authors highlight how poverty amplifies vulnerability, particularly in developing economies like India. They particularly emphasize that states cannot absolve themselves of their duty towards their people by merely following international political routines. Even before considerations of international accountability and legal obligations arise, states are responsible—under the principles of the social contract and the welfare state—to protect their citizens, many of whom are already suffering domestically from the effects of climate change.

Swati Sinha's "Climate Justice and Environmental Management in Vedic Era" excavates ancient Indic texts to reframe environmental stewardship as a cultural imperative.⁵ By analyzing Vedic hymns that venerate ecological harmony, Sinha shows how these texts warned against harming forests or rivers, ideas that feel modern today. By connecting Vedic principles to today's climate fight, she argues we can blend old wisdom with new science to create fairer policies. This chapter stands out because it challenges the idea that environmental care is a Western concept, showing India's own traditions can inspire climate justice.

Swatilekha Mondal, in her chapter "Ethics and Climate Change: A Legal Study with Special Reference to India", examines international developments in climate change ethics, including the UNESCO Declaration on Ethical Principles in Relation to Climate

3 Brijendra Prasad Kartikey, "Impact of Coal Mining on Ecology and Environment of Assam: A Situational Analysis", in S. Rajkhowa and S. Rajkhowa (eds.), *Climate Change and Climate Justice* 1–28 (Satyam Books Pvt. Ltd., Jaipur, 2023).

4 *Id.*, "Demystifying Climate Change: Justice and Development" 29–66.

5 *Id.*, "Climate Justice and Environmental Management in Vedic Era" 67–83.

6 *Id.*, "Ethics and Climate Change: A Legal Study with Special Reference to India" 84–104.

Change, 2017, alongside domestic legal frameworks in India.⁶ She analyses how these frameworks are underpinned by moral and religious imperatives guiding ethical responses to climate change.

The second thematic cluster scrutinizes the legal and policy architectures governing climate change, exposing their deficiencies while proposing mechanisms to embed justice within global and national frameworks. These chapters underscore the need for reparative and accountable systems to address systemic inequities.

Arup Poddar's "UNFCCC/COPs: Advancing Climate Justice" traces the evolution of international climate law, from the adoption of the UNFCCC in 1992, through the Kyoto Protocol's binding commitments in 1997, to the Paris Agreement's voluntary framework in 2015.⁷ Poddar highlights the Paris Agreement's potential to operationalize the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC), aligning it with the right to sustainable development as a globally recognized norm. He notes the agreement's success in fostering public participation in climate negotiations, with non-state actors—civil society, indigenous groups, and NGOs—gaining unprecedented recognition for linking climate mitigation to human rights protections. His analysis advances the discourse by foregrounding participatory mechanisms as a cornerstone of climate justice.

Gerry Nagtzaam's "Seeking to Right a Wrong: The Current State of Loss and Damage in Climate Negotiations" complements this, dissecting the loss-and-damage framework as a nascent reparative mechanism.⁸ Nagtzaam highlights its chronic underfunding and bureaucratic impediments, proposing streamlined governance to ensure equitable disbursement to vulnerable states. This chapter's contribution lies in its pragmatic vision for operationalizing reparative justice, addressing historical emitters' accountability.

Ravinder Kumar Pathak's "Climate Change in Tortious Liability" explores domestic legal avenues, positing tort law as a vehicle for holding polluters accountable.⁹ Drawing parallels with international precedents, Pathak advocates for operationalizing principles of corrective justice in the realm of climate change liability.

Jitendra Kumar Das's "Rethinking Climate Justice in India" offers a comprehensive analysis of India's legal framework for addressing climate justice, situating it within the interplay of international climate law, global environmental principles, and domestic legislation.¹⁰ However, he identifies critical shortcomings in this framework, noting that while a plethora of general environmental legislations—such as those governing

7 *Id.*, "UNFCCC/COPs: Advancing Climate Justice" 105–126.

8 *Id.*, "Seeking to Right a Wrong: The Current State of Loss and Damage in Climate Negotiations" 127–157.

9 *Id.*, "Climate Change in Tortious Liability" 158–166.

10 *Id.*, "Rethinking Climate Justice in India" 209–257.

air, water, and forest conservation—are applied to combat climate change, they lack specificity and coherence for addressing the multifaceted nature of climate impacts. Das argues persuasively for the enactment of dedicated climate change legislation tailored to India’s socio-environmental context. His contribution enriches the discourse by advocating for a cohesive legal architecture that aligns with India’s constitutional mandate under Article 21 (right to life), thereby ensuring a robust mechanism for dispensing climate justice.

The third thematic cluster examines the sectoral ramifications of climate change, focusing on its disproportionate impacts on food security, health, and community resilience. These chapters underscore the urgency of justice-driven adaptation to safeguard marginalized populations.

J.P. Rai’s “Climate Change and Food Security in India” examines the intersection of climate change and food security through international human rights instruments, Indian constitutional provisions (Articles 21, 23(1), and Directive Principles of State Policy), and domestic statutes like the Essential Commodities Act and the National Food Security Act of 2013.¹¹ Rai also highlights government initiatives, such as the Mid-Day Meal Scheme and Public Distribution System, and underscores the Indian judiciary’s pivotal role in safeguarding food security. He warns that climate change exacerbates socio-economic vulnerabilities, threatening India’s food systems, and advocates for enhanced preparedness through reducing corruption and inefficiencies in the national food security framework.

Mizanur Rahman and Tasmiah Ali’s “Climate Change in Bangladesh: A Legal Perspective” highlights various initiatives undertaken by governmental agencies in Bangladesh to address climate change.¹² However, the authors advocate for more innovative adaptation and mitigation strategies to tackle the multifaceted challenges posed by climate change. These include formulating a comprehensive national policy on climate change with specific budgetary allocations to prioritize the rights of displaced persons, establishing robust legal protections for climate-induced migrants, and developing a climate-resilient healthcare system to address health vulnerabilities exacerbated by environmental changes.

Sanjit Kumar Chakraborty and Rohit Debnath’s “Environmental Justice: A Critique on the Need for a Globalised Approach” emphasizes that critical environmental resources like the Amazon rainforest and ozone layer are global concerns requiring collective solutions.¹³ They critique state-centric international legal frameworks, noting the sidelining of *jus cogens* norms in favor of sovereignty. To advance environmental justice, they propose designating harm to ecologically protected areas as violations of

11 *Id.*, “Climate Change and Food Security in India” 167–185.

12 *Id.*, “Climate Change in Bangladesh: A Legal Perspective” 186–208.

13 *Id.*, “Environmental Justice: A Critique on the Need for a Globalised Approach” 258–269.

jus cogens norms and advocate for deep ecology and Eastern principles, to foster a holistic approach to environmental protection.

Subhash Chandra Singh's "Environmental Justice and Sustainability: Concepts, Strategies and Application" examines the conceptual interplay between environmental justice, sustainability, and public interest.¹⁴ It emphasizes that environmental justice must be inseparable from the concerns of vulnerable communities. The chapter critiques the disproportionate environmental burdens faced by marginalized groups in India, such as pollution-related health disparities, and underscores the need to integrate environmental justice with social justice. Singh analyzes India's legal framework for environmental protection and advocates for embedding a human rights approach within environmental jurisprudence

The final thematic cluster offers a forward-looking vision, exploring technological and policy innovations to mitigate climate change while advancing justice. These chapters propose solutions that balance decarbonization with equity, ensuring inclusive transitions.

M.K. Bhandari's "Role of Technology in Promoting Climate Justice" promotes for use of scientific mechanisms such as Carbon Management Process and AI coupled with Internet of Things (AIoT) for inclusive climate action, from emissions monitoring to community-led renewables.¹⁵ Bharat Suhas Rathor and S.P. Rathor's "The Nexus between Climate Justice and Energy Justice: An In-Depth Analysis" examines the link between energy and climate justice, stressing that national resilience and energy security depend on equitable energy transitions.¹⁶ They advocate integrating technology with policy to achieve a just transition, ensuring fair access to clean energy. Critiquing the theoretical focus of energy justice literature, the authors propose practical, community-driven policies, to make energy justice a tangible reality.

Tushar Kanti Saha's "Modelling Futuristic Mission Life and Vision Earth: Integration in Environmental Design for the Generation Next" envisions sustainable urban futures by integrating Mission LiFE with regenerative design.¹⁷ It explores the National Green Hydrogen Mission's eco-friendly fuel potential, its legal and policy implications, and new traffic rules for low-emission mobility. Saha also discusses the International Solar Alliance's solar energy initiatives, the Coalition for Disaster Resilient Infrastructure, and proposing a technology-policy synergy for resilient, low-carbon habitats.

14 *Id.*, "Environmental Justice and Sustainability: Concepts, Strategies and Application" 270-300.

15 *Id.*, "Role of Technology in Promoting Climate Justice" 301-310.

16 *Id.*, "The Nexus between Climate Justice and Energy Justice: An In-Depth Analysis" 311-323.

17 *Id.*, "Modelling Futuristic Mission Life and Vision Earth: Integration in Environmental Design for the Generation Next" 324-339.

Kaushik C. Raval and Heena L. Makhija's "Green Hydrogen as a Way for Decarbonisation in India: Issues and Challenges" explores green hydrogen as a decarbonization strategy for heavy industries.¹⁸ Their roadmap addresses technological and financing barriers, advocating for policies that prioritize green hydrogen in India.

Shambhu Prasad Chakrabarty, Nilandri Mondal, and Victor Nayak's "Legal and Policy Intervention in India to Mitigate Environmental Challenges Caused by Degeneration of Wetlands" critiques the lax enforcement of India's 2017 Wetland Rules.¹⁹ Their proposal for community-led restoration enhances flood resilience, advancing justice for wetland-dependent communities.

Sriparna Rajkhowa's "Imperatives of Climate Mitigation and Adaptation towards Facilitating Climate Justice" examines adaptation and mitigation strategies to counter climate change impacts, emphasizing the need for effective implementation.²⁰ Rajkhowa advocates for enhanced forest management, climate-resilient agricultural practices like heat-tolerant crop varieties, and significant reductions in greenhouse gas emissions through alternative energy sources and decreased fossil fuel reliance. The chapter highlights addressing pollution, particularly in developing nations, and promotes early warning systems and clean development mechanisms to ensure equitable climate resilience, prioritizing vulnerable communities.

Partha Jyoti Das's "Climate Change and its Implications for Hydro-Meteorological Disasters in North East India with Special Reference to Assam" concludes with a focus on Assam's flood vulnerabilities, driven by changing hydrological cycle.²¹ Das's hazard-vulnerability models and advocacy for indigenous adaptations, such as climate smart integrated flood management systems, contribute to localized adaptation and mitigation frameworks.

In conclusion, the book *Climate Change and Climate Justice* stands as a critical intervention in the environmental scholarship, interrogating the structural inequities that exacerbate climate vulnerabilities while proposing transformative pathways for redress. It asks tough questions: Why do the poor suffer most from a crisis they didn't cause? Can we build a world where climate solutions don't deepen inequality? Drawing on Kant's idea that every person deserves dignity,²² the book challenges us to see climate victims

18 *Id.*, "Green Hydrogen as a Way for Decarbonisation in India: Issues and Challenges" 340-348.

19 *Id.*, "Legal and Policy Intervention in India to Mitigate Environmental Challenges Caused by Degeneration of Wetlands" 349-360.

20 *Id.*, "Imperatives of Climate Mitigation and Adaptation towards Facilitating Climate Justice" 361-385.

21 *Id.*, "Climate Change and its Implications for Hydro-Meteorological Disasters in North East India with Special Reference to Assam" 386-404.

22 Hill TE, "Kantian perspectives on the rational basis of human dignity", in M. Düwell, J. Braarvig, R. Brownsword, D. Mieth (eds.), *The Cambridge Handbook of Human Dignity: Interdisciplinary Perspectives* 215-221 (Cambridge University Press, Cambridge, 2014).

as individuals, not just numbers. Its chapters—from Assam’s coal mines to global treaties—show how climate change is tangled with unfairness, but also how we can untangle it with better laws, technology, and community action. Through its rigorous analysis and prescriptive solutions—ranging from tort litigation to green hydrogen—the book offers a robust framework for dismantling these inequities. For scholars, policymakers, and advocates, it is an indispensable resource, weaving scientific rigor with ethical norms to reimagine climate governance as a justice-driven enterprise.

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