

Conceptualizing Climate Law in India

Shashi Kant Yadav

School of Law, University of Surrey, Guildford, United Kingdom;
Jindal Global Law School, O P Jindal Global University, Sonapat, India
s.yadav@surrey.ac.uk

Noreen O'Meara

School of Law, University of Surrey, Guildford, United Kingdom
n.o'meara@surrey.ac.uk

Rosalind Malcolm

School of Law, University of Surrey, Guildford, United Kingdom
r.malcolm@surrey.ac.uk

Abstract

This article highlights the importance of differentiating between environmental law and climate law in India, and, in doing so, analyses what counts as climate law in that country. It identifies three overarching approaches (trickle-down; Environmental Impact Assessment as climate law; and human rights law and climate change) that the current literature adopts to study and analyse climate law in India. We argue that none of these approaches comprehensively covers climate change mitigation measures adopted in this country. We propose an alternative approach to the analysis of climate law in India, which we call 'administrative layering'. Accordingly, we outline a three-step process to identify and conceptualize climate law in India.

Keywords

India; identification of climate law; mitigation law; climate litigation; Environmental Impact Assessment; human rights law

1. Introduction

What constitutes 'climate law' is debatable.¹ In India's multilevel legal system, no dedicated legislation obligates the government to reduce greenhouse gas emissions, and no umbrella legislation exists to address climate change.² India's national and subnational governments effectively consider the theme of climate change as a subset of India's environmental law.³

¹ Alexander Zahar, 'The Contested Core of Climate Law', 8(3-4) *Climate Law* 244 (2018), 244-5.

² Navroz K. Dubash, et al., 'National and sub-national policies and institutions', in *Climate Change 2022: Mitigation of Climate Change Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, edited by Priyadarshi R. Shukla, et al. (Cambridge University Press, 2022), 1399-1400.

³ For instance, the federal government's ministry responsible for climate change action lists 'climate change' as a subsection under the main category of 'Environment Divisions' and cites environmental laws for mitigating climate change. See Government of India, Ministry of Environment, Forest and Climate

In this article, we posit that conflating environmental law with climate law in India conceptually inhibits researchers, the government, and the judiciary from identifying how climate change mitigation measures can run counter to the core objective of environmental laws in India. While recognizing that climate law is different from environmental law, this article aims to identify what qualifies as climate law in India. We approach this objective with the understanding that it is important to identify and systematically analyse the impacts that legal provisions have when placing obligations on or incentivizing entities to reduce greenhouse gas emissions. These provisions do not necessarily protect the environment and, in some cases, could have the opposite effect.⁴

Two recent developments in India demonstrate the need to differentiate between climate law and environmental law. First, India's federal government recently amended its key law governing forests, the Forest Conservation Act of 1980.⁵ Through the amendment, via The Forest (Conservation) Amendment Act of 2023, the federal government envisaged 'creating a carbon sink of an additional 2.5 to 3.0 billion metric tonnes of CO₂ equivalent by 2030'⁶ by encouraging commercial plantations. In doing so, India's federal government recognized its commitment toward climate change mitigation in a legislative instrument for the first time directly referencing the Paris Agreement's requirement for Nationally Determined Contributions (NDCs) and recognizing the role of forests in creating carbon sinks.⁷ However, envisaging 'forests' as 'carbon sinks' can have the effect of replacing natural trees with commercial plantations of certain trees, such as palm trees, that absorb carbon but distort local ecology.⁸ Recent analyses have highlighted that the replacement of natural forests with commercial plantations aimed at creating carbon sinks could result in the loss of biodiversity,⁹ disturbed weather patterns, changes in local ecology, and equity issues.¹⁰ These include transitions of forest governance from local communities to commercial entities that are acquiring commercial plantations to earn carbon credits to offset their carbon emissions.¹¹

The Forest (Conservation) Amendment Act of 2023 was framed, in essence, as a measure supporting climate change mitigation. However, this amendment could result

Change (hereinafter MOEFCC), <<https://moef.gov.in/moef/division/environment-divisions/climate-changecc-2/documents-publications/index.html>>.

⁴ Alexander Zahar, 'Climate Law, Environmental Law, and the Schism Ahead', in *Routledge Handbook of International Environmental Law*, edited by Erika Techera, Jade Lindley, Karen Scott, and Anastasia Telesetsky (Routledge, 2021), 488-500.

⁵ Forest (Conservation) Amendment Act, 2023.

⁶ Ibid., Section 2.

⁷ Ibid.

⁸ David Whitehead, 'Forests as Carbon Sinks—Benefits and Consequences', 31(9) *Tree Physiology* 893 (2011).

⁹ Sandra Díaz, Andy Hector, and David A. Wardle, 'Biodiversity in Forest Carbon Sequestration Initiatives: Not Just a Side Benefit', 1(1) *Current Opinion in Environmental Sustainability* 55 (2009), 55-60.

¹⁰ Christopher S. Galik and Robert B. Jackson, 'Risks to Forest Carbon Offset Projects in a Changing Climate', 257(11) *Forest Ecology and Management* 2209 (2009), 2209-16.

¹¹ Ibid., 2209-14.

in consequences that undermine the basic tenets of environmental law in India.¹² Climate mitigation measures, such as those relating to carbon sinks, are often conflated with environmental law in India.¹³

Second, in the landmark ruling of *M K Ranjithsinh v Union of India*¹⁴ the Supreme Court of India (Supreme Court) emphasized the need to analyse the interplay between the competing priorities of environmental conservation and climate change mitigation measures. As we assert in this paper, this kind of interplay can only be analysed if climate change mitigation measures are not conflated with measures for environmental conservation.

In this matter, India's federal government filed an application to modify an earlier Supreme Court order, which had restricted the government from setting up overhead high-voltage transmission lines and solar panels on the basis that such developmental projects could push critically endangered 'Great Indian Bustard' (GIB) birds to extinction. The government challenged this restriction, arguing that these developmental projects are crucial for India's transition from high-carbon energy sources, such as coal, to renewable energy. Restricting such projects, as the government argued, would hinder India from lowering its greenhouse gas emissions and therefore jeopardise its ability to meet its obligations under the Paris Agreement.

In the judgment, the Supreme Court noted that there are 'competing priorities' of environmental conservation and energy transition in the wake of climate change (that is, the conservation of GIB birds and the laying down of transmission wires and solar panels), and these competing priorities do not operate in 'disjointed silos'.¹⁵ Therefore, as the Supreme Court observed, a nuanced interplay between climate change and environmental conservation exists, which should be considered at the planning stage for developmental projects.

The Supreme Court held that the Indian judiciary should be 'alive'¹⁶ to India's international commitments while dealing with reliefs related to environmental conservation and eased the restriction on laying down overhead transmission lines and solar panels. In doing so, the Supreme Court did not presume that existing environmental legislations in India and their overarching principles cover climate change issues. Instead, the Supreme Court recognised that India does not have a framework law on climate change.

¹² C. R. Bijoy, 'The Underbelly of the Forest Conservation (Amendment) Bill 2023', *Mongabay*, 7 April 2023, <<https://india.mongabay.com/2023/04/commentary-the-underbelly-of-the-forest-conservation-amendment-bill-2023/>>.

¹³ For instance, see Government of Haryana, which lists all environment protection laws under the category of climate law: <<https://envis.haryana.gov.in/important-climate-change-laws-in-india/>>. See also MOEFCC, *supra* note 3.

¹⁴ *M K Ranjithsinh & Ors. v Union of India & Ors.*, 2024 INSC 280, available at <https://main.sci.gov.in/supremecourt/2019/20754/20754_2019_1_25_51677_Judgement_21-Mar-2024.pdf>.

¹⁵ *Ibid.*, para. 60.

¹⁶ *Ibid.*, para. 27.

Additionally, the Supreme Court noted that while Indian citizens already have a right to a clean environment protected as a fundamental right under Article 21 of the Indian Constitution, the interplay between environment conservation and climate change mitigation measures highlights the need to articulate a further distinct right – to be protected against the adverse effects of climate change – rights which the Indian judiciary must balance using a ‘holistic approach’.¹⁷ We show in section 2.3, how scholars have presumed that the right to a clean environment covers rights related to climate change, an approach which avoids analysis of the interplay between such rights.

These two recent developments in India underscore the importance of conceptually analysing climate law as a separate discipline and identifying how climate law may interact with existing environmental law in India. In doing so, this article critically analyses the current literature on climate law in India and establishes a research agenda to conceptualize climate law in the country. We find that the current climate-law scholarship in India broadly uses three approaches (trickle-down, Environmental Impact Assessment as climate law, human rights law and climate change). We discuss these three approaches in Section 2, arguing that none comprehensively covers the approach adopted in India to climate change mitigation. We argue that these approaches do not account for Indian climate law because they conflate environmental law with climate law in India; they are transplanted from the Global North; and they are not fully contextualized within the Indian legal system.

In Section 3 we propose an alternative approach to analysing climate law in India: ‘administrative layering’. Under this approach, obligations or incentives to reduce greenhouse gas emissions are layered upon existing legislation, by delegating rule making powers regarding climate change mitigation measure to the executive. . We suggest a research approach that explores sector-specific administrative regulations that qualify as climate law in India, in order to study their cumulative impacts. In doing so, we propose a three-step research approach to identifying what qualifies as climate law in India.

In Section 4, we illustrate this approach using a case study applying the administrative layering approach to India’s electricity sector and the Renewable Purchase Obligations (RPOs). This regulatory measure obliges electricity distribution companies to buy a specific percentage of renewable energy. We show how climate-law databases, as well as current scholarship on climate law in India, do not cover RPO-related regulations and litigation as climate law. This is because RPOs are not identifiable within India’s broader environmental law framework using the three approaches we discuss in Section 2, reinforcing the need to approach climate law as a separate discipline.

It is necessary to clarify what we mean by ‘climate law’ in India. What includes ‘climate law’ is, as noted earlier, contentious.¹⁸ We adopt Zahar’s definition of climate law as a ‘law that obliges or incentivizes an entity to reduce its greenhouse gas emissions or suffer consequences for not doing so’.¹⁹ We recognize that this definition has two

¹⁷ Ibid., para. 19.

¹⁸ Alexander Zahar, ‘The Nature of Climate Law’, 35(2) *Journal of Environmental Law* 295 (2023).

¹⁹ Alexander Zahar, ‘What is Climate Law?’, SSRN (2021), <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3779606>.

primary parts. The first part, ‘law that obliges or incentivizes an entity to reduce its greenhouse gas emissions’, includes any law (including administrative regulations) that either places an obligation on, or incentivizes, an entity—whether a corporation, an individual, or the government—to reduce greenhouse gas emissions. The second part, ‘suffer consequences for not doing so’, includes penalties or economic disadvantages for not reducing emissions. Zahar’s definition provides a comprehensive theoretical framework that can assist researchers in transcending the existing environmental law framework and pinpointing legal provisions that could influence the reduction of greenhouse gases. This is critical to conceptualizing climate law, especially in countries like India that lack a legislative framework on climate change, where climate change law are analysed through the prism of prevailing environmental law frameworks and underlying principles. Given India’s recent commitment to achieving net-zero emissions by 2070²⁰ and its updated Nationally Determined Contributions (in August 2022),²¹ which aims to reduce its greenhouse gas emission intensity, it is imperative to scrutinize the legislative provisions that facilitate the reduction of greenhouse gas emissions in the country.

Before proceeding further, we note three caveats on the scope of this article. First, in this analysis, law includes constitutional provisions, statutes, administrative regulations, and substantive as well as procedural laws. We do not include policy and other action plans by the government within the definition of ‘law’. Second, we do not presume that greenhouse gases are environmental pollutants; thus, we do not presume that a law governing environmental pollutants in India regulates greenhouse gases. Third, we have not included climate change adaptation measures within the definition of ‘climate law’, as adaptation measures mainly require mainstreaming or repurposing existing laws and governing structures and a resilience-based approach towards the existing legal frameworks.²² For instance, the National Disaster Management Act of 2005²³ is increasingly repurposed as legislation to manage climate events institutionally in India. However, mapping all such legislation that could be repurposed is beyond this study’s scope, as this paper conceptualises climate law as a discipline separate from environmental law in India.

2. What Does Not Count as ‘Climate Law’?

²⁰ See Government of India, Ministry of Environment Forest and Climate Change, *Net Zero Emissions Target* (3 August 2023), < [²¹ Government of India, *India’s Updated First Nationally Determined Contribution Under Paris Agreement* \(August 2022\), < <https://unfccc.int/sites/default/files/NDC/2022-08/India%20Updated%20First%20Nationally%20Determined%20Contrib.pdf>>.](https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1945472#:~:text=India%2C%20at%20the%202026th%20session,achieve%20net%20zero%20by%202070>.”</p></div><div data-bbox=)

²² Benoit Mayer, ‘Climate Change Adaptation Law: Is There Such a Thing?’, in *Debating Climate Law*, edited by Benoit Mayer and Alexander Zahar (Cambridge University Press, 2021), 310-328.

²³ For instance, see Armin Rosencranz, Dilpreet Singh & Jahnvi G. Pais, ‘Climate Change Adaptation, Policies, and Measures in India’ 22 *Georgetown International Environmental Law Review* 575 (2022), 585-6.

The Paris Agreement and climate law are part of a ‘trend’,²⁴ one might say, in emerging environmental law scholarship. Current scholarship on climate law focuses on the impact of international climate change treaties on national legal systems.²⁵ Transdisciplinary studies also analyse the impact of climate change on other disciplines of law, such as human rights law,²⁶ technology law,²⁷ or procedural law.²⁸ However, it is still not clear what ‘climate law’ is and how it impacts the laws related to environmental protection.²⁹

Climate change exists alongside and reinforces multiple other forms of environmental degradation, and it requires different regulations. For example, greenhouse gases are not necessarily ‘pollutants’³⁰ and thus may not fall under the legislative ambit of laws aiming to reduce or curb pollution, i.e. mainly environmental laws.³¹ However, scholarship on India’s climate law tends to focus on environmental law rather than on climate law specifically.

The existing literature on climate law in India can be broadly categorized as reflecting three approaches. First, in the trickle-down approach,³² scholars argue that the Paris Agreement has created a domestic-level obligation on the Indian government to reduce greenhouse gas emissions. Second, in the ‘EIA as climate law’ approach, scholars³³ posit India’s EIA framework as a mitigation measure for climate change, arguing that greenhouse gas assessment is a prerequisite for receiving environmental clearance for a development project, thereby reducing greenhouse gas emissions through planning

²⁴ Chris Hilson, ‘Trends in Environmental Law Scholarship: Marketisation, Globalisation, Polarisation, and Digitalisation’, 35(1) *Journal of Environmental Law* 21 (2023), 21-3.

²⁵ Benoit Mayer, ‘The Critical Functions of Scholarship in Climate Law’, 8(3-4) *Climate Law* 151 (2018), 151-6.

²⁶ For instance, see Barry S. Levy and Jonathan A. Patz, ‘Climate Change, Human Rights, and Social Justice’, 81(3) *Annals of Global Health* 310 (2015); Derek Bell, ‘Does Anthropogenic Climate Change Violate Human Rights?’, in *Environmental Rights*, edited by Steve Vanderheiden (Routledge, 2017), 91-116.

²⁷ Chiara Armeni, ‘Global Experimentalist Governance, International Law and Climate Change Technologies’, 64(4) *International and Comparative Law Quarterly* 875 (2015), 875.

²⁸ Svitlana Kravchenko, ‘Procedural Rights as a Crucial Tool to Combat Climate Change’, 38 *Georgia Journal of International and Comparative Law* 613 (2009).

²⁹ Zahar, supra note 4, 488-92.

³⁰ Clare Brunel and Erik Paul Johnson, ‘Two Birds, One Stone? Local Pollution Regulation and Greenhouse Gas Emissions’, 78 *Energy Economics* 1 (2019).

³¹ Ibid.

³² See Lavanya Rajamani, ‘India’s Approach to International Law in the Climate Change Regime’, 57 *Indian Journal of International Law* 1 (2017); Deepa Badrinarayana, ‘Climate Change Law and Policy in India’, in *The Oxford Handbook of International Climate Change Law*, edited by Kevin R. Gray, Richard Tarasofsky, and Cinnamon P. Carlarne (Oxford University Press, 2016), 688; Joyeeta Gupta, ‘The Paris Climate Change Agreement: China and India’, 6(1-2) *Climate Law* 171 (2016); Shibani Ghosh, ‘Climate Litigation in India’, in *Comparative Climate Change Litigation: Beyond the Usual Suspects*, edited by Francesco Sindico and Makane Moïse Mbengue (Springer, 2021), 347-67.

³³ M. P. Ram Mohan, Els Reynaers, and Sriram Prasad, ‘India’s Progressive Environmental Case Law: A Worthy Roadmap for Global Climate Change Litigation’, 54(4) *Georgetown Journal of International Law* 489 (2023), 526-31; Arindam Basu and Sharda Mandal, ‘Protecting Coastal Environment in India: Reading Laws in the Context of Climate Change’, 10(1) *Asian Journal of Legal Education* 87 (2023); Eeshan Chaturvedi, ‘Climate Change Litigation: Indian Perspective’, 22(8) *German Law Journal* 1459 (2021); Urmila Jha-Thakur and Fatemeh Khosravi, ‘Beyond 25 years of EIA in India: Retrospection and Way Forward’, 87 *Environmental Impact Assessment Review* 106533 (2021).

laws. Third, in the ‘human rights law and climate change’ approach,³⁴ scholars connect human rights law with climate change and, in the Indian context, argue that Article 21 of the Indian Constitution (on the right to life) obliges the Indian government to reduce greenhouse gas emissions because climate change can threaten Indian citizens’ right to a clean environment (and thereby to life itself).³⁵

We suggest that none of these categories fully captures how climate law in India works, as they neither incentivize emission reduction nor impose obligations on entities, including the government, to reduce greenhouse gas emissions. While these approaches have been useful in conceptualizing climate law in the Global North, it is vital to contextualize climate change law in light of India’s legal culture and analyse India’s climate law beyond these three categories—particularly as being distinct from environmental law (a trend in the second and third approaches). Further, by fitting ‘climate law’ into one of these categories, scholars either approach Indian environmental law as covering climate law³⁶ or focus on India’s non-binding climate change policies instead of focusing on legislation.³⁷ Therefore, the three main approaches involve two common pitfalls: first, they consider climate law as a subset of environmental law (especially in the second and third approaches) and second, they fail to contextualize climate change law from an Indian perspective.

While discussing the three approaches, we analyse several court judgments that are treated as examples of climate litigation in India but which, in reality, are judgments concerning environmental regulations. Court cases in India that oblige or incentivize the reduction of greenhouse gas emissions do exist. Still, such judgments are not treated as illustrating climate litigation in India, a feature that reinforces the need to conceptualize climate law in the light of Indian legal culture.

As for legislation, despite the absence of specific legislation regarding greenhouse gas emission reduction, India has taken steps to mitigate climate change through a sectoral approach, as discussed in Section 3. One such step is the Renewable Purchase Obligations, mandated by the federal government’s Electricity Act (Amendment) of 2003.³⁸ This requires all electricity distribution licensees, mainly State-owned corporations, to purchase a minimum specified quantity of their electricity produced

³⁴ Deepa Badrinarayana, ‘The Emerging Constitutional Challenge of Climate Change: India in Perspective’, 19 *Fordham Environmental Law Review* 1 (2009); Bhupal Bhattacharya, ‘Safeguarding Human Rights Through Environmental Protection: An Analysis of Article 21 of the Constitution of India’, 6 *Journal of Human Rights Law and Practice* 32 (2023); See Mohan et al, *supra* note 33, 526-8. **Fix**

³⁵ The Indian Supreme Court in a series of cases has established that Article 21 of the Indian Constitution gives Indian citizens a fundamental right to a clean environment. See *Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh*, AIR 1988 SC 2187; *M.C. Mehta v. Union of India*, AIR 1987 SC 1086; *Virender Gaur v. State of Haryana*, (1995) 2 SCC 577, para 7; *Bombay Dyeing & Mfg. Co. Ltd. v. Bombay Environmental Action* (2006) 3 SCC 434; *M.C. Mehta v. Kamal Nath*, (2000) 6 SCC 213, para 8; *Maneka Gandhi v. Union of India*, AIR 1978 SC 597. See also Government of India, *Environment Protection under Constitutional Framework of India* (2014), <<https://pib.gov.in/newsite/printrelease.aspx?relid=105411>>.

³⁶ For instance, see Chaturvedi, *supra* note 33. Chaturvedi’s assessment on climate litigation in India applies environmental law principles to climate change issues, arguing that the Indian judiciary has evolved ‘innovative dicta’ to handle climate-change-related issues.

³⁷ See Badrinaryanan, *supra* note 34, 1-5.

³⁸ Section 86(1)(e) of the Electricity (Amendment) Act, 2003.

from renewable energy sources.³⁹ The federal government and renewable energy producers have filed cases against State-owned corporations that have failed to comply with the RPO requirements.⁴⁰ However, scholarly discussions on climate law or climate litigation in India do not comprehensively cover RPO cases or the legislation itself. For instance, the database of the Sabin Center for Climate Change Law, when it comes to climate litigation in India, does not include cases filed by renewable energy producers and the federal government for non-compliance with RPOs.⁴¹ While such databases are invaluable research resources, gaps in coverage occur, particularly in relation to Global South countries.⁴² Legal measures and cases that qualify as climate law in India, such as the coal cess and the national building code, have also not yet been extensively discussed by scholars studying climate law in the country.

Against this background, this section reviews the literature on Indian climate law and identifies three approaches scholars have taken while analysing climate law in India.

2.1. Trickle-Down Impact

Several scholars argue that India has a legal commitment to mitigate the impacts of climate change by reducing greenhouse gas emissions under the Paris Agreement. According to this view, climate change mitigation law has a trickle-down impact from the Paris Agreement to domestic-level implementation in India.⁴³ However, this analysis tends to focus on climate change policies or general provisions of Indian environmental law, which are distinct from climate law.

The Indian judiciary has not hesitated to directly apply provisions of international instruments, even if the government has not ratified them, by integrating them with the

³⁹ Ibid. See also Rashmi Nayar, 'Enforcing Renewable Purchase Obligations', 51(40) *Economic and Political Weekly* 21 (2016).

⁴⁰ There are several cases on RPOs, especially in the Appellate Tribunal for Electricity (APTEL), but none of these cases are analysed or conceptualized as climate litigation in the existing scholarship. For example, see *Indian Wind Power Association v. Gujarat Electricity Commission and others*, Appeal no. 258 of 2013, Appellate Tribunal for Electricity; *Lloyds Metal and Energy Limited v. Maharashtra Electricity Board Regulation*, Appeal No. 53, 2012; *JSW Steel Limited v. Tamil Nadu Electricity Regulatory Board*, Appeal No. 62 of 2016. Further, see the lists of such cases in Chandrika Bothra, 'Navigating the Regulatory Environment for Renewable Energy in India and Renewable Purchase Obligations', 14(1) *George Washington Journal of Energy and Environmental Law* 8 (2023). See also Megha Kaladharan, 'Renewable Energy in India: An Analysis of the Regulatory Environment and Evolving Policy Trends', *Centre for Policy Research* (2016), <<https://cprindia.org/workingpapers/renewable-energy-in-india-an-analysis-of-the-regulatory-environment-and-evolving-policy-trends/>>.

⁴¹ Sabin Center for Climate Change Law, 'Climate Case Chart, India', <<https://climatecasechart.com/non-us-jurisdiction/india/>>. Although the database includes one example of the many cases related to RPOs (*Hindustan Zinc v. Rajasthan Electricity Regulatory Commission*, (2015) 12 SCC 611), that case does not concern non-compliance but whether captive power generators fall within the ambit of the RPO regulatory framework.

⁴² Joana Setzer and Lisa Benjamin, 'Climate Change Litigation in the Global South: Filling in Gaps', in *Transnational Climate Litigation: The Contribution of The Global South*, edited by Jacqueline Peel and Jolene Lin (American Journal of International Law Unbound, 2020), 56. See also Jacqueline Peel and Jolene Lin, 'Transnational Climate Litigation: The Contribution of the Global South', 113(4) *American Journal of International Law* 679 (2019).

⁴³ See supra notes 32, 33 and 34.

constitutionally guaranteed fundamental rights of India's citizens.⁴⁴ However, in the area of climate change, the judiciary has refrained from putting any obligation on India's federal or State governments under the Paris Agreement, highlighting in this particular instance that India has not passed any legislation to ratify its commitment under the Paris Agreement, thereby making its commitment an obligation.⁴⁵

The Indian constitution provides that for international law instruments to be applicable in India, they must be ratified through an act of federal Parliament.⁴⁶ After the Stockholm Declaration of 1972,⁴⁷ India's federal government passed several laws on environmental matters covered under various international instruments it has signed. The federal government has legislated on environmental issues, e.g. in the Environment Protection Act of 1986,⁴⁸ and established central administrative bodies on environmental law, such as the Ministry of Environment and Forest (now the Ministry of Environment, Forest, and Climate Change) and the Central Ground Water Authority, among other bodies.⁴⁹

The Indian judiciary has upheld federal legislation over environmental matters when contested by States, noting that in case of conflict between federal and State laws, federal laws take precedence.⁵⁰ Moreover, under Article 249 of the Indian Constitution, the federal government can legislate on matters that fall within the legislative competence of States if the matter is of national interest. However, as noted, the Indian Parliament has not passed legislation to ratify the Paris Agreement. Given that the Constitution does not categorically grant legislative competence over climate change mitigation to federal or State governments, action—or inaction—in this respect is critical.

Three distinct bills⁵¹ related to climate law have been introduced to the Indian Parliament, but none succeeded, primarily due to insufficient political support. Significantly, these bills each aimed to obligate the government to fulfil its obligations

⁴⁴ For instance, see *Vishaka v. State of Rajasthan*, AIR 1997 SC 3011.

⁴⁵ See *Ridhima Pandey v. Union of India*, Application No. 187/2017, National Green Tribunal; *Om Dutt Singh v. State of Uttar Pradesh*, Application No. 521/2014, National Green Tribunal.

⁴⁶ Articles 73 and 253 of the Constitution of India.

⁴⁷ Stockholm Declaration on the Human Environment, in *Report of the United Nations Conference on the Human Environment*, UN Doc. A/CONF. 48/14, 2 and Corr. 1 (1972).

⁴⁸ This has been the case even when water resources within a State's boundaries fall within the legislative competence of the respective State governments in the Indian Constitution: Entry 17, List II, Seventh Schedule, the Constitution of India.

⁴⁹ Wilfried Swenden and Rekha Saxena, 'Environmental Competencies in India's Federal System', in *Environmental Policy in India*, edited by Natalia Ciecierska-Holmes, Kirsten Jörgensen, Lana Laura Ollier, and D. Raghunandan (Routledge, 2019), 17-37.

⁵⁰ *S Jagannath v. Union of India*, (1997) 2 SCC 87.

⁵¹ The Climate Change Bill, 2015, Bill No. 23 of 2015,

<<http://164.100.47.4/billtexts/lbills/asintroduced/4367LS.pdf>>; The Climate Change (Net Zero Carbon) Bill, 2021, Bill No. 41 of 2021,

<<https://sansad.in/getFile/BillsTexts/LSBillTexts/Asintroduced/41%20of%202021%20AS.pdf?source=legislation>>; The Net Zero Emission Bill, 2022, Bill No. 83, of 2022,

<www.indiaenvironmentportal.org.in/files/file/net%20zero%20emissions%20bill%202022.pdf>.

under the Paris Agreement, specifically on achieving the goals detailed in India's NDCs.⁵²

As noted, the Indian judiciary has refrained from putting obligations on entities to reduce greenhouse gas emissions,⁵³ such as by recognizing India's commitment under international law to reduce greenhouse gas emissions. In 2013, the National Green Tribunal (NGT)⁵⁴ initiated a *suo motu* proceeding concerning the melting and blackening of glaciers in the Rohtang Pass region of the State of Himachal Pradesh. The Tribunal observed that climate change is the reason for the melting of the glaciers. However, the NGT's orders refrained from putting any obligation on the governments or other entities to reduce greenhouse gas emissions.⁵⁵ Instead, the NGT directed the State government to collect a green tax from tourists who visit the region and to use this money for the 'development of the area'.⁵⁶

In *Gaurav Bansal v. Union of India (Bansal)*,⁵⁷ the NGT ordered State governments to prepare and publish State-level climate action plans. Several scholars have characterized this case as climate litigation.⁵⁸ However, the Tribunal issued the order because the federal government requires each State to formulate an action plan under the National Action Plan for Climate Change (NAPCC).⁵⁹ These action plans do not obligate States or other entities to reduce emissions. Moreover, these action plans are not integrated into India's regulatory or legislative framework and their implementation is inadequately monitored.⁶⁰ Therefore, the Tribunal's order to the State governments to merely draft and submit an action plan to the federal government did not lead to any new obligation imposed on any level of government to reduce emissions. Moreover, the order did not deal with the merits of the action plans. It simply ordered subnational-level governments to devise a plan to fulfil their administrative obligation under the NAPCC. The *Bansal* case did pave the way for future cases to emerge, given the NGT's finding that it can hear specific instances of violation of action plans on climate change.

Two years after the *Bansal* case was decided, in *Pandey*,⁶¹ the Tribunal declined to place any obligation on the government to reduce greenhouse gas emissions. In this case, the applicant argued that India's current climate change policies are insufficient to meet its commitment under the Paris Agreement. The NGT refrained from passing an

⁵² Ibid.

⁵³ See, *Pandey* case, supra note 45.

⁵⁴ The National Green Tribunal is a specialized quasi-judicial body that has jurisdiction under the key Indian environment laws as well as on constitutional matters related to the environment. See, National Green Tribunal Act, 2010,

<https://greentribunal.gov.in/sites/default/files/act_rules/National_Green_Tribunal_Act_2010.pdf>.

⁵⁵ *In re Court on its own Motion v. State of Himachal Pradesh and others*, CWPIIL No. 15 of 2010, National Green Tribunal.

⁵⁶ Ibid., para. 38.

⁵⁷ Application No. 498/2014, National Green Tribunal.

⁵⁸ For instance, see Chaturvedi, supra note 33, 1467; Mohan et al., supra note 33, 516-18; Ghosh, supra note 32.

⁵⁹ Government of India, National Action Plan on Climate Change, <<https://static.pib.gov.in/WriteReadData/specificdocs/documents/2021/dec/doc202112101.pdf>>.

⁶⁰ Anu Jogesh and Mridula Mary Paul, 'Ten Years After: Evaluating State Action Plans in India', 86(1-2), *Science and Culture* 35 (2020).

⁶¹ See *Pandey* case, supra note 45.

order obligating the government to reduce greenhouse gas emissions; instead, the Tribunal's order presumed that the EIA process in India covers the issue of climate change, finding that 'the issue of climate change is certainly a matter covered in the process of impact assessment'.⁶² The Tribunal did not dwell on exactly how the Indian EIA framework covers the 'issue of climate change'. As we show in the following subsection, India's EIA process neither requires an assessment of greenhouse gas emissions nor obligates the project proponent to adopt a climate change mitigation plan. (An appeal against the *Pandey* case is pending before the Supreme Court.⁶³)

In 2024, the Supreme Court ruling in *M K Ranjithsinh*⁶⁴ discussed India's commitment to reduce greenhouse gas emissions under the Paris Agreement, finding that the judiciary must be aware of India's international commitments while adjudicating writ petitions that may hinder the fulfilment of international obligations. It is important to exercise caution before assuming that this judgment could impose a legally binding obligation on the government or any entity to reduce emissions. The Supreme Court dealt with a specific issue regarding competing priorities between GIB birds protection and energy transition and examined how India's international commitment to the Paris Agreement might be affected if transmission lines and solar panels are halted to protect the critically endangered GIB birds.

The Supreme Court contextualized the issue of protecting the GIB birds from extinction within the broader perspective of climate change and based its decision on the fact that if transmission lines and solar panels are not allowed in the disputed area, the loss in electricity generation would be compensated for by burning coal, which could emit 623 billion KG of carbon dioxide.⁶⁵ It is important to note that the Supreme Court made this observation in a specific context, and one must exercise caution before decontextualizing it and placing it next to judgments passed in the Global North that categorically put obligations on the state to reduce emissions.

For instance, in *Urgenda*,⁶⁶ the Supreme Court of Netherlands upheld a finding by the District Court (The Hague) which obliged the Dutch government to reduce its emissions to a level exceeding that of its existing pledges, also recognizing obligations under the European Convention on Human Rights (ECHR) to protect citizens against climate change. On the contrary, in *M K Ranjithsinh*, the Court emphasised the need for sustainable development and a holistic approach that balances economic prosperity with climate mitigation and environmental conservation.⁶⁷ This does not necessarily entail that the government now must reduce emissions, indicating a trickle-down effect.

Indian courts and tribunals are known for their judicial activism.⁶⁸ As indicated earlier, there have been several instances where courts have directly applied international

⁶² Ibid., para. 3.

⁶³ Civil Appeals No. 388/2021, Supreme Court of India.

⁶⁴ See *M K Ranjithsinh* case, supra note 14.

⁶⁵ Ibid., at para. 52.

⁶⁶ *The State of the Netherlands (Ministry of Economic Affairs and Climate Policy) v Urgenda Foundation*, HR 20 December 2019, ECLI:NL:HR:2019:2006

⁶⁷ See *M K Ranjithsin* case, supra note 14, at para 59.

⁶⁸ Mahajan Niyati, 'Judicial Activism for Environment Protection in India', 4(4) *International Research Journal of Social Sciences* 7 (2015).

instruments without their ratification by the Indian Parliament.⁶⁹ However, activism is not evident across the board, as no judgments have categorically obliged the Indian government to reduce greenhouse gas emissions under the Paris Agreement.

Therefore, neither the Indian legislature nor the Indian judiciary has placed any obligation on any entity, including the government, to reduce greenhouse gas emissions. Although the Indian government has formulated climate change policies at both federal and State levels, these policies have not been made legally binding. Given the failure to implement these policies through law, it is unclear how the Paris Agreement has a trickle-down impact in India, especially for creating a legal obligation or incentivizing framework applying to an entity for reducing greenhouse gas emissions.

2.2. EIA as Climate Law

In addition to the absence of specific legislation obliging the Indian government to reduce greenhouse gas emissions, no legislation enables citizens of the country to challenge the government's approach toward climate change mitigation in courts or tribunals. Some argue⁷⁰ that it is possible to challenge environmental clearances (i.e. EIAs) granted to significant greenhouse-gas-emitting projects by framing the issues from a non-climate perspective to satisfy the statutory requirements for filing the case. Thus, citizens may use this technique to raise legal challenges aimed at halting a project.⁷¹ EIA can be a legal tool to reduce greenhouse gas emissions, and the EIA process can—indirectly—obligate an entity to reduce its emissions. The availability of this avenue for climate change litigation has, some argue, enabled the Indian judiciary to be innovative in its approach,⁷² by applying the principles of environmental law to mitigate the impacts of climate change.

However, there are two pitfalls in this argument. First, there is no legal certainty in how EIA processes work in India. The federal government can change the EIA framework in India merely by issuing a notification as a discretionary executive action. Thus, relying solely on EIA for the existence of a climate law in India is chancy.⁷³ Second, the Indian judiciary has refrained from halting projects solely based on their greenhouse gas emissions.⁷⁴ Moreover, there is no way to attribute how a project could impact climate change mitigation measures in India, as neither the Indian government nor the Indian judiciary has accepted the concept of a 'carbon budget',⁷⁵ which is widely used in

⁶⁹ Ibid. See also *Vishaka* judgment, supra note 44.

⁷⁰ See Mohan et al., supra note 33, 526-31. See also Brisha Ohdedar, 'Climate Change Litigation in India and Pakistan: Analyzing Opportunities and Challenges', in *Climate Change Litigation: Global Perspectives*, edited by Ivano Alogna, Christine Bakker, and Jean-Pierre Gauci (Brill, 2021), 103-23. Additionally, see multiple sources mentioned in supra note 33.

⁷¹ Ibid.

⁷² Chaturvedi, supra note 33, 1468.

⁷³ Nivit Kumar Yadav and Anubha Aggarwal, 'Centre Made Over 100 Changes in Environment Impact Assessment Notifications in past 5 years', *Down to Earth*, 10 April 2023, <www.downtoearth.org.in/news/environment/centre-made-over-100-changes-in-environment-impact-assessment-notification-in-past-5-years-88619>.

⁷⁴ See *Goel Ganga Developers India Pvt Ltd v. Union of India*, Civil Appeal No. 10854 of 2016, Supreme Court of India; *Pandey* case, supra note 45; *In re Court on its Own Motion*, supra note 55.

⁷⁵ See *Goel Ganga Developers* case, supra note 74, paras 42-5.

climate litigation in the Global North⁷⁶ to assess the role of a specific project in impacting a country's climate change mitigation plans.

This subsection discusses these two pitfalls, arguing that EIA cannot be considered as constituting climate law in India.

2.2.1. Legal Uncertainty in EIA

The Indian federal government established an environmental clearance framework under the Environment Protection Act of 1986,⁷⁷ delegating the power to formulate the EIA process to the federal-level executive.⁷⁸ The federal government can change the process and standards for obtaining environmental clearance without discussing it in Parliament or consulting with the States.⁷⁹

The EIA framework in India divides all developmental projects into two categories: Category A (usually all the oil-and-gas extraction processes and significant industrial projects relevant to climate change mitigation measures), which requires environmental clearance from the federal government, and Category B, which requires environmental clearance from the respective State government (subdivided into B1 and B2, as explained below). However, federal-level regulators determine the basic standards for granting State-level environmental clearance.⁸⁰ While the federal government grants environmental clearance to Category A projects, it is the State government's responsibility to enforce the environmental regulations and the conditions the federal government imposes on the development projects when granting them environmental clearances.

Moreover, which projects require environmental clearance at the federal level (Category A), which projects require approval at the State levels (Categories B1 and B2, where Category B2 projects are not required to conduct an EIA but still need to gain approval from State governments before starting the process), and which projects do not require clearance at all—these are all decisions that the federal-level government makes.⁸¹ In this sense, the federal government has substantive power to decide how environmental clearances are granted in India.

⁷⁶ For instance, see the reliance on 'carbon budget' in *Urgenda v. The Netherlands*, The Hague District Court (24 June 2015) ECLI:NL:RBDHA:2015:7196 (original language: ECLI:NL:RBDHA:2015:7145); and see *Gloucester Resources Limited v. Minister for Planning*, [2019] NSWLEC 7; 234 LEGRA 257. See also the discussion on 'Carbon Majors' in Joana Setzer and Catherine Higham, 'Global trends in climate change litigation: 2023 Snapshot', Grantham Research Institute on Climate Change and the Centre for Climate Change Economics and Policy, London School of Economics and Political Science (2023), <www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/06/Global_trends_in_climate_change_litigation_2023_snapshot.pdf>.

⁷⁷ Section 3, Environment Protection Act, 1986, read with rule 5(3) of Environment Protection Rules, 1986.

⁷⁸ Sections 5 and 6, Environment Protection Act, 1986.

⁷⁹ Stellina Jolly and Siddharth Singh, 'Environmental Impact Assessment Draft Notification 2020, India: A Critique', 5 *Chinese Journal of Environmental Law* 11 (2022), 11-36.

⁸⁰ Environment Impact Assessment Notification 2006, issued on 14 September 2005, S.O. 1533(E), <www.environmentwb.gov.in/pdf/EIA%20Notification,%202006.pdf>.

⁸¹ *Ibid.*

Between 2018 and 2023, the federal government made more than 100 changes in the EIA process merely by issuing a series of notifications.⁸² These changes have resulted in several regressions in India's environmental standards, including the fact that several illegal projects can now gain ex-post clearance by applying to the federal government.⁸³ Additionally, exploratory hydrocarbon projects, among others, are exempt from EIA at the federal level.⁸⁴

Therefore, it is precarious to rely on EIA as representing a significant legal tool for mitigating climate change in India. Suggestions that a 'trend' is evident from EIA-based legal proceedings and that such proceedings constitute leading mitigation-related claims are exaggerated.⁸⁵ It is evident that climate change litigation involves widespread recourse to the environmental clearance framework,⁸⁶ but the frequency with which the federal government alters the framework makes it an inherently unstable basis for a purported climate change mitigation law.

Another example is a 2020 amendment to the EIA process that exempts all projects considered 'strategic' to India's security from public hearings.⁸⁷ Information related to these projects is not made public. Thus, the federal government can declare a coal-powered thermal plant 'strategic' to India's national energy security and exempt it from disclosing information about its greenhouse gas emissions. In April 2023, while recognizing existing and proposed coal projects in India as crucial to India's national security, the federal government's investigative agency initiated legal proceedings against an environmental lawyer for planning to file a case against existing and proposed coal projects.⁸⁸

Relying solely on EIA to chart a trend in climate litigation or climate law in India fails to contextualize the nature and application of EIA in Indian legal culture.

2.2.2. Judicial Approach to EIA as Climate Law

Even if we assume that the EIA process in India is consistent and provides a gateway to climate litigation, the argument for its utility as mitigation law does not hold up. Courts

⁸² See the list of amendments to the EIA process at Government of India, Ministry of Environment, Forest and Climate Change, 'EIA Notification, 2006 and subsequent amendments', <https://environmentclearance.nic.in/report/EIA_Notifications.aspx>.

⁸³ In 2020, The federal government of India released a draft amendment to the EIA process, which was heavily criticised by the civil society for its environmental standard regression. Although, the federal government did not implement the 2020 draft, it brought several changes to the existing EIA regulations, in effect implementing several provisions of the 2020 draft in a phased manner. For instance, see Jayashree Nandi, 'Recent environment rules mirror controversial draft', *Hindustan Times*, 5 January 2022, <<https://www.hindustantimes.com/india-news/recent-environment-rules-mirror-controversial-draft-101654367194857.html>>

⁸⁴ See Jolly and Singh, supra note 79, 18-28.

⁸⁵ See Chaturvedi, supra note 33, 1468, where climate litigation trend is used in conjunction with environmental clearance.

⁸⁶ See Mohan et al., supra note 33, 524-28.

⁸⁷ Amendment to Environmental Impact Assessment Notification 2006 made on 20 April 2022, <https://environmentclearance.nic.in/writereaddata/EIA_Notifications/63_SO1886E.pdf>.

⁸⁸ Manuela Andreoni, 'Someone to Know: A Lawyer for Forests', *New York Times*, 20 June 2023, <www.nytimes.com/2023/06/20/climate/ritwick-dutta-environmental-law.html>.

have yet to categorically determine that India's EIA framework includes the assessment of climate change mitigation measures. This situation is unlike trends in climate litigation in the Global North, where courts have found entities (whether corporate or governmental) liable to reduce greenhouse gas emissions by integrating assessment of greenhouse gas emissions into a national EIA framework.⁸⁹

One could argue that India's current EIA framework allows regulators to grant environmental clearance on a case-by-case basis, allowing them thus to impose climate change mitigation measures depending on the potential emissions of the proposed project.⁹⁰ However, this gives regulators significant discretionary power, with an absence of clear guidelines making it impossible to hold them accountable.⁹¹ Furthermore, courts are yet to adjudicate on how India's EIA framework can be used to mitigate climate change. For example, in the *Society for Protection of Environment and Biodiversity*,⁹² the NGT found that provisions of an EIA notification that exempted construction companies (that account for 22 per cent of India's greenhouse gas emissions) from obtaining environmental clearance were illegal because they would lead to regression from existing environmental norms. At the same time, however, the Tribunal did not order that greenhouse gas emission assessments should be included in the environmental clearance process for construction companies.⁹³

The NGT, therefore, did not establish a clear link between India's EIA framework and greenhouse gas emissions because neither the parent law (the 1986 Act) nor the executive notifications (the federal EIA notifications) require regulators to consider climate change mitigation measures when granting environmental clearance to a project. As indicated above, in 2019, in *Pandey*,⁹⁴ where the NGT rejected a minor's plea to consider climate change mitigation measures when giving environmental clearances to projects, the Tribunal stated that 'the issue of climate change is certainly a matter covered in the process of impact assessment',⁹⁵ but it did not elaborate how EIA covers the issue of climate change, in what context, and which EIA notification explicitly obligates environmental regulators to consider the issue of climate change. Without precisely identifying these issues, the NGT, in effect, presumed that, when granting clearance, regulators consider the 'issue of climate change', shifting the burden of proof onto the petitioner to show that regulators did not consider it.

⁸⁹ Jacqueline Peel, 'Environmental Impact Assessments and Climate Change', in *Elgar Encyclopedia of Environmental Law*, edited by Michael Faure (Edward Elgar, 2016), 348-57.

⁹⁰ For instance, High Court of South Africa accepted a similar argument in *EarthLife Africa Johannesburg v. Minister of Environmental Affairs and Others*, Case no. 65662/16.

⁹¹ Kanika Jamwal and Charu Sharma, 'The Curious Case of "Violation": Deconstructing the Procedure Under the Draft Environmental Impact Assessment Notification 2020', 6(1) *Indian Law Review* 96 (2022), 96-106.

⁹² *Society for Protection of Environment and Biodiversity v. Union of India*, Application No. 677/2016.

⁹³ *Ibid.*, para. 33.

⁹⁴ See *Pandey* case, *supra* note 45.

⁹⁵ *Ibid.*, para. 2, <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2019/20190115_Original-Application-No.-187-of-2017_order.pdf>.

This presumption can deter challenges to environmental clearance given to fossil-fuel projects based on their potential greenhouse gas emissions.⁹⁶ Therefore, the thesis that EIA can provide a gateway to climate litigation in India is weak.

2.3. Human Rights Law and Climate Change

Scholars have made connections between human rights law and climate change in the Indian context⁹⁷ on the basis that one can invoke fundamental rights guaranteed by the Indian Constitution to hold the government accountable for fulfilling its obligations under the Paris Agreement and reducing greenhouse gas emissions.⁹⁸ To this end, there are two overarching approaches that connect climate change with human rights in the Indian context.

First, that Article 21 of the Indian Constitution, which ensures the right to life, includes the right to a clean environment.⁹⁹ The government is responsible for administrating environmental pollutants, as defined under the Environment Protection Act of 1986. Therefore, the argument goes, the State's failure to reduce greenhouse gas emissions can be seen as a violation of an individual's right to a clean environment under Article 21.¹⁰⁰

Second, that Article 21 of the Indian Constitution, guarantees people a 'right to be free from the adverse impact of climate change'¹⁰¹. Additionally, since climate change impacts vulnerable communities – for instance, the ones living in coastal areas and indigenous communities - more than others, these communities are disproportionately affected by the adverse impact of climate change. Therefore, vulnerable communities are also protected under Article 14 of the Indian Constitution, which guarantees equality before the law. The Court takes this approach in *M K Ranjithsinh*.

While the first approach considers 'climate protection' a right within the broader right to a clean environment, the second approach views the right against the adverse impact of climate change as a distinctive right that has a nuanced interplay with the right to a clean environment. Before the *M K Ranjithsinh* case,¹⁰² as we argue in this section, scholars analysed climate change-related fundamental rights as part of the right to a clean environment, i.e. the first approach. In this section, we argue that the first approach, which considers 'climate protection' as a right within the broader right to a clean environment, fails to appreciate the importance of this distinction. We then turn to the second approach, which sees the right against the adverse impact of climate change as a distinctive right and analyse its future implications.

⁹⁶ See Jamwal and Sharma, *supra* note 91.

⁹⁷ See Badrinarayana, *supra* note 34, 1; Bhattacharya, *supra* note 34; Mohan et al., *supra* note 33, 524.

⁹⁸ *Ibid*.

⁹⁹ Armin Rosencranz and Shiraz Rustomjee, 'Citizens' Right to a Healthful Environment under the Constitution of India', 8(1) *National Law School Journal* 1 (1996), 5. Normawati Binti Hashim, 'Constitutional Recognition of Right to Healthy Environment: The Way Forward', 105 *Procedia: Social and Behavioral Sciences* 204 (2013), 204-10. See also the Supreme Court of India cases mentioned in *supra* note 32.

¹⁰⁰ See Mohan et al., *supra* note 33, 491-94.

¹⁰¹ See *M K Ranjithsin* case, *supra* note 14, at para. 24-27.

¹⁰² *Ibid*.

2.3.1. Climate protection as part of right to clean environment

The first approach assumes that greenhouse gases are environmental pollutants and, therefore, that the fundamental right to a clean environment includes taking climate change mitigation measures. However, the emission of greenhouse gases itself is neither polluting nor in any ordinary sense harmful.¹⁰³ For instance, in a case that involved the question of whether the Indian federal government must formulate a climate policy to regulate HFC-23 as a greenhouse gas, the federal government asserted that ‘HFC-23 is not a pollutant or a toxic gas which is harmful to human health, and it is just one of the greenhouse gases identified under the UNFCCC’.¹⁰⁴

In this context, the NGT recognized a difference between greenhouse gases as agents of pollution instead of pollutants. Although the Tribunal observed that Article 21 of the Indian Constitution provides for the right to a clean environment, which can be interpreted broadly ‘to claim the protection of the environment including the steps that can be taken for avoiding global warming and environment pollutants’,¹⁰⁵ it refrained from connecting climate change avoidance with Article 21, finding that the regulation of greenhouse gas emissions is a matter of global policy. The NGT noted that no scientific study established that HFC-23 is a pollutant; thus, HFC-23, as a greenhouse gas, does not fall within the scope of India’s 1986 Environment Protection Act, which covers environmental pollutants. Therefore, the Tribunal did not rule on regulating HFC-23 based only on the fact that it is a greenhouse gas.

Additionally, the NGT observed ‘there would be a very little role for the statutory authorities within the country to take appropriate [climate change mitigation] measures’.¹⁰⁶ This means that even if the government regulates HFC-23 as a greenhouse gas, the impact of such regulation on global climate change will be insignificant. For human rights claims (or fundamental rights claims) to succeed, the petitioner must show that a greenhouse gas is a pollutant that could lead to environmental pollution, eventually violating the citizens’ right to a clean environment.

The problem is the same for carbon dioxide and methane emissions: these are not considered pollutants but greenhouse gases.¹⁰⁷ Arguing that emissions of such gases by an entity (necessarily minuscule in proportion to the total emitted) would violate the right to a clean environment under Article 21 of the Constitution assumes that greenhouse gases are pollutants under the 1986 Act.

Several scholars consider that the Indian judiciary might interpret Article 21 of the Indian Constitution to include ‘climate protection’, ‘clean climate’, and ‘climate change

¹⁰³ Zahar, *supra* note 1, at 252-5.

¹⁰⁴ *Indian Council for Enviro-Legal Action (ICELA) v. MoEFCC*, Application No. 170 of 2014, National Green Tribunal, para. 8.

¹⁰⁵ *Ibid.*, para. 19.

¹⁰⁶ *Ibid.*, para. 27.

¹⁰⁷ Leandro Jose Barbosa and Miroslava Hamzagic, ‘Greenhouse Gases and Air Pollution: Commonalities and Differentiators’, 27 *Revista Científica Multidisciplinar Núcleo do Conhecimento*, São Paulo 102 (2022).

issues’ within a human-rights-based approach that could enable citizens to hold the Indian government accountable for reducing greenhouse gas emissions. This argument tends to rely on the *Bansal* case, which observed that the NGT could take only a case-specific decision concerning a particular violation of existing statutory law and its ‘climatic consequences’,¹⁰⁸ leaving open the possibility that this might eventually occur. However, it is challenging to link the violation of human rights law (Article 21) with the climatic consequences of a specific project, as the impact of climate change is from cumulative emissions across space and time.¹⁰⁹

Additionally, it is difficult, if not impossible, to pinpoint a project’s impact on the ‘issue of climate change’¹¹⁰ as the Indian EIA framework does not categorically cover greenhouse gas emissions.¹¹¹ Moreover, as noted, the NGT has clarified that it presumes that India’s EIA framework covers the issue of climate change without earmarking a specific provision that produces that effect.¹¹²

We may apply this framework to an imaginary situation. Consider a proposed coal-powered energy project in India that has received environmental clearance from the federal government. An Indian citizen, Shyam, seeks to challenge the clearance citing Article 21, and further connecting the covered human rights with climate change. Shyam argues that the coal project violates his fundamental right to life and a clean environment, so that the federal government must deny the proposed project. However, to succeed in his claim, Shyam must approach his fundamental right in a case-specific manner (as the NGT determined in *Bansal*).¹¹³ He cannot simply claim that India’s cumulative greenhouse gas emissions violate his fundamental right to a clean environment. Instead, he must establish that the proposed coal project categorically emits greenhouse gases to the extent that it would have ‘climate consequences’,¹¹⁴ for these greenhouse gases are environmental pollutants.¹¹⁵

Shyam could challenge the project by using a ‘carbon budget’ argument to the effect that the project’s emissions will exceed India’s carbon budget.¹¹⁶ Nonetheless, the court would likely reject the budgetary argument, as the concept is not officially recognized and the problem of mitigation is not managed in these terms by the Indian government (we note that the Supreme Court has rejected a similar argument in the *Goel Ganga Developers* case, in an appeal against an NGT’s decision).¹¹⁷ Additionally, the Tribunal will presume that the ‘issue of climate change’ has already been considered when

¹⁰⁸ See *Bansal* case, supra note 57, 2.

¹⁰⁹ Fanny Thornton, ‘The Absurdity of Relying on Human Rights Law to Go After Emitters’, in *Debating Climate Law*, edited by Benoit Mayer and Alexander Zahar (Cambridge University Press, 2021), 161-5.

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*

¹¹² See *Pandey* case, supra note 45.

¹¹³ See *Bansal* case, supra note 57.

¹¹⁴ *Ibid.*

¹¹⁵ *Society for Protection of Environment and Biodiversity* case, supra note 92.

¹¹⁶ Such an argument was successful in *Gloucester Resources Limited v. Minister for Planning* [2019] NSWLEC 7; 234 LEGRA 257 in Australia, but it was rejected by India’s Supreme Court in *Goel Ganga Developers* case, supra note 74.

¹¹⁷ *Ibid.*

granting environmental clearance to the project.¹¹⁸ To prove that the issue was not dealt when granting clearance, Shyam would have to meet the burden of proof to establish that the EIA of the power plant did not cover the ‘issue of climate change’.¹¹⁹

In summary, Shyam would have to prove that: (1) the EIA of the coal project did not take into consideration the ‘issue of climate change’; (2) the greenhouse gases from the coal project are environmental ‘pollutants’; and (3) the emissions from the coal project would be substantive enough to lead to climatic consequences. Litigants worldwide have taken the concepts of ‘carbon budget’, ‘carbon footprint’, ‘Paris target’, ‘Paris alignment’, and ‘climate modelling’,¹²⁰ for example, to challenge a specific project and assert that the project violates the relevant government’s climate change mitigation obligations. In the absence of these concepts, as is the case in India, it is an uphill task to prove that a particular project could have climatic consequences, as of course the change in the climate is occurring as a cumulative impact of greenhouse gas emissions across all jurisdictions and over centuries. The concepts in question help determine a particular jurisdiction’s greenhouse gas emission threshold and help measure how much the proposed project contributes toward that threshold. However, the Indian legislature and judiciary have not recognized such notions as operative.¹²¹

Therefore, it is near-impossible to determine how a specific project can lead to ‘climate consequences’.¹²² The NGT, as we have noted, has refused to entertain a petition that does not pinpoint the effect of a particular project but rather challenges only in general terms the Indian government’s approach to climate change mitigation.¹²³ In such a situation, it is wishful thinking to imagine that the Indian government can be held accountable for reducing greenhouse gas emissions under an expanded interpretation of Article 21 of the Indian Constitution.

2.3.2. Right to be free from the adverse effects of climate change

In *M K Ranjitsinh*, the Supreme Court categorically acknowledges that people of India have a specific ‘right against the adverse effects of climate change’.¹²⁴ In doing so, the Supreme Court observed that while several judicial decisions in India establish the right to a clean environment as a part of Article 21, ‘it is yet to be articulated that the people have a right against the adverse effects of climate change’.¹²⁵ The Court, then, articulates this right by analysing its interplay with the right to a clean environment, and right to health, observing:¹²⁶

¹¹⁸ See *Pandey* case, supra note 45, para. 2.

¹¹⁹ Ibid.

¹²⁰ Kim Bouwer, ‘The Unsexy Future of Climate Change Litigation’, 30(3) *Journal of Environmental Law* 483 (2018); Shaikh Eskander, Sam Fankhauser, and Joana Setzer, ‘Lessons From Global Trends in Climate Change Legislation and Litigation’, 2 *Environmental and Energy Policy and the Economy* 44 (2020).

¹²¹ See *Goel Ganga Developers* case, supra note 74.

¹²² See *Pandey* case, supra note 45, para. 2.

¹²³ Ibid.

¹²⁴ See *M K Ranjitsinh* case, supra note 14, para. 19.

¹²⁵ Ibid.

¹²⁶ See *M K Ranjitsinh* case, supra note 14, para. 24.

“Without a clean environment which is stable and unimpacted by the vagaries of climate change, the right to life is not fully realised. The right to health (which is a part of the right to life under Article 21) is impacted due to factors such as air pollution, shifts in vector-borne diseases, rising temperatures, droughts, shortages in food supplies due to crop failure, storms, and flooding.”

Given the hesitation of the Indian judiciary to impose legally binding obligations on the government to reduce greenhouse gas emissions, it will be interesting to see how such a right is enforced. It is important to note that, in India, rights under Article 21 are subject to reasonable restrictions.¹²⁷ These restrictions on the ‘right to be free from the adverse effects of climate change’ could arise from the fact that there is currently no Indian legislation obligating the government to reduce its carbon emissions, nor do any Indian regulations recognize administrative tools such as carbon budgets which contextualize how specific carbon-intensive projects may breach India’s commitment under international law. Furthermore, the *M K Ranjithsinh* case underscores the importance of taking a ‘holistic view’ of competing considerations such as economic prosperity and climate mitigation.¹²⁸ Therefore, a ‘holistic view’ that prioritises India’s energy security and economic prosperity over reducing greenhouse gas emission, can impose a reasonable restriction when it comes to enforcing this right.

One should not presume that a right to protection from adverse consequences of climate change has the effect of specifically obliging the government to reduce greenhouse gas emissions. One should also not decontextualise this right from Indian legal culture and infer its substance from similar rights recognized in the Global North. For example, in *KlimaSeniorinnen*¹²⁹ the European Court of Human Rights (ECtHR) recently extended its environmental jurisprudence in the climate context when recognizing a right to effective protection from serious adverse effects of climate change under Article 8 ECHR. Identifying gaps in Switzerland’s policy and legislative framework, the ECtHR recognized positive obligations on Contracting Parties to implement an appropriate framework to achieve a ‘substantial and progressive reduction of their respective GHG emission levels’.¹³⁰ In doing so, the ECtHR elaborated on the need for ‘immediate action’ to set and update emission reduction goals within binding national legislation, using a carbon budget or other method of quantification, with monitoring, adequate implementation and scope for oversight by the ECtHR.¹³¹

In contrast, while the Indian Supreme Court recognised such a right, it did not impose any specific obligations on the State to reduce emissions or set up a monitoring mechanism. Therefore, one must contextualize such a right according to the Indian legal culture and should not equate it with the one granted in other jurisdictions. In this context, none of the three approaches to climate law in India identify elements that impose any obligation on, or incentivize, an entity to take measures to mitigate climate change. Therefore, they fall short of qualifying as ‘climate law’. While these approaches

¹²⁷ See *Minerva Mills v. Union of India*, AIR 1980 SC 1789, at 5 and 46.

¹²⁸ See *M K Ranjithsinh* case, supra note 14, para. 10.

¹²⁹ See *Verein KlimaSeniorinnen Schweiz and Others v Switzerland* (application no. 53600/20), dated 9 April 2024, available at < <https://hudoc.echr.coe.int/eng/?i=001-233206>>

¹³⁰ *Ibid.*, para 548.

¹³¹ *Ibid.*, paras 549-550.

have been effective in the Global North, mainly through climate change litigation, it is vital to contextualize and evaluate their potential within India's legal culture.

3. What Counts as Climate Law in India?

If these three approaches do not conceptualise 'climate law' in India, what does? We argue that India has taken a sectoral approach, in which an obligation or incentive to reduce greenhouse gas emissions is based on existing laws and regulations applicable to a specific sector, such as energy and agriculture. This kind of approach, as the 2022 Intergovernmental Panel on Climate Change report acknowledges,¹³² is an 'administrative layering' of climate change measures, in which legal systems influence climate action by adding sector-specific by-laws and regulations to their existing legal and regulatory frameworks at the national, subnational, and local levels.¹³³ In such an approach, legislations (such as the Electricity Act 2003 and the Energy Conservation Amendment Act 2022) delegate rule-making powers to the federal or State governments to make sector-specific rules and regulations to reduce or incentivise the reduction in greenhouse gas emissions. Such an approach may provide flexibility to India's existing governing and institutional structures to implement climate change mitigation measures without compromising India's developmental goals. For instance, the Energy Conservation (Amendment) Act 2022 delegates power to the federal government to put an obligation on specific identified sectors (such as large steel, cement, and mining industries; transportation sector; commercial building) to buy a share of non-fossil fuel energy sources, out of their total energy feedstock. In case of non-compliance, the Act empowers the federal government to levy penalties.¹³⁴

Such layering of climate-change measures results in a cumulative legal and regulatory landscape that is difficult to capture with the current methodological approaches used to determine the content of climate law.¹³⁵

The sectoral approach we rely on here includes the energy, agriculture, construction, and financial sectors and how they mitigate climate change impacts.¹³⁶ For example, the federal government has layered the existing electricity laws and regulations with RPOs¹³⁷ and the energy section with clean-energy cess.¹³⁸ The government aims to incentivize reducing greenhouse gas emissions in the construction sector by introducing

¹³² Dubash, *supra* note 2.

¹³³ *Ibid.*

¹³⁴ Previously, the Energy Conservation Act 2001 delegated the federal government to make rules and regulations for reducing industry-level carbon emissions. In response, the federal government implemented the Perform, Achieve, and Trade (PAT) scheme that created emission reduction targets for each of the energy-intensive industries and implemented a monitoring mechanism. These measures are discussed in detail in Anjum Roshia, David Freestone, 'A Green Emerging Market: India's experiment with Market Based Mechanisms For Climate Mitigation', 6 *Carbon and Climate Law Review* 342 (2012).

¹³⁵ *Ibid.*

¹³⁶ Thomas Spencer and Navroz K. Dubash, 'Scenarios for Different "Future Indias": Sharpening Energy And Climate Modelling Tools', 22(1) *Climate Policy* 30 (2022).

¹³⁷ See Nayar, *supra* note 39.

¹³⁸ Ipshita Chaturvedi, 'The Carbon Tax Package: An Appraisal of its Efficiency in India's Clean Energy Future', 10 *Climate and Carbon Law Review* 194 (2016).

the National Building Energy Code.¹³⁹ In the financial industry, green sovereign bonds, among other elements, were introduced to incentivize funding for renewable sources of energy and climate change mitigation technologies.¹⁴⁰

We do not intend to detail all such measures in this article, but rather, we want to define a future research agenda for contextualizing climate law scholarship in India. In doing so, we illustrate our proposed research approach by examining RPOs under the Electricity Act of 2003,¹⁴¹ as the energy sector accounts for the bulk of emissions in India. Moreover, implementing RPOs requires interactions between federal and State governments, making it a case study that demonstrates how the structure of the legal and regulatory framework influences climate law in India.

We propose three steps for this contextualization.

First, we suggest that, in the Indian context, researchers should approach climate law as a discipline distinct from environmental law. While environmental law in India has overarching umbrella legislation, such as the Environment Protection Act of 1986, which establishes institutional frameworks for environmental protection at the federal and State levels, climate law in India does not have umbrella legislation. On the other hand, climate law is implemented at the sectoral level. Thus, analysing climate law in India through the lens of environmental legislation, is likely to distract from examining sector-wide climate mitigation measures that India's legal system has implemented—as illustrated by the RPO system. Since RPOs do not fall under the overarching environment law framework, they are rarely discussed in climate law or climate litigation scholarship focusing on India.

Second, we suggest mapping different climate-mitigation measures integrated at sectoral levels. We call such mapping exercises ‘cartography’,¹⁴² in which researchers must look vertically into greenhouse gas emissions in India from different sectors and then identify and earmark regulations and by-laws in those sectors that obligate or incentivize entities to reduce greenhouse gas emissions.

Our third proposed step is to assess the aggregated impact of this sectoral approach and cumulatively study the effects of different climate change regulations on reducing greenhouse gas emissions. In doing so, researchers must ‘zoom out’¹⁴³ and analyse different legal and regulatory structures emerging within India's multilevel legal system.

¹³⁹ Lohit Saini, et al., ‘Net Zero Energy Consumption Building In India: An Overview and Initiative Toward Sustainable Future’, 19(5) *International Journal of Green Energy* 544 (2022).

¹⁴⁰ Shashank Bansal, et al., ‘Sustainable Development of the Green Bond Markets in India: Challenges And Strategies’, 175 *Sustainable Development* 121378 (2023).

¹⁴¹ Section 86(1)(e) of the Electricity (Amendment) Act, 2003.

¹⁴² Mapping governance regulations through legal cartography is an evolving methodology. See Emma Lees, ‘Value in Comparative Environmental Law—3D Cartography and Analytical Description’, in *The Oxford Handbook of Comparative Environmental Law*, edited by Emma Lees and Jorge E. Viñuales (Oxford University Press, 2019), 35-56; Nicole Reiz, Shannon O’Lear, and Dory Tuininga, ‘Exploring a Critical Legal Cartography: Law, Practice, and Complexities’, 12 *Geography Compass* (2018), e12368; Juan Auz, ‘Human Rights-Based Climate Litigation: A Latin American Cartography’, 13(1) *Journal of Human Rights and the Environment* 114 (2022).

¹⁴³ See Lees, *supra* note 142, 45.

4. RPOs as Climate Law

Through the case study of RPOs, we show that none of the three approaches discussed above covers regulations or litigation arising out of RPOs as climate law, even though RPOs place obligations on electricity distribution companies (most of which are owned by State governments in India) to purchase a certain percentage of electricity generated by renewable sources.¹⁴⁴ We do so by adopting the three analytical steps discussed above.

Electricity distribution in India involves coordination between the federal and State governments, as electricity falls under the concurrent list of the Indian Constitution, on which both federal and State governments can make law.¹⁴⁵ The generation and transmission of electricity are under the central government's purview. Distribution falls within the remit of the State governments.¹⁴⁶ Through distribution companies (DISCOMs), the State governments purchase electricity according to demand and supply it to their respective regions. DISCOMs procure electricity from power generators and distribute it to consumers through transmission lines, substations, and transformer networks.¹⁴⁷

Deriving its power from the Electricity (Amendment) Act of 2003, the State governments must fix a certain percentage of electricity generated through renewable energy sources (RES) that DISCOMs must buy from the national grid.¹⁴⁸ This percentage may vary from State to State. For renewable sources, a specific portion is ringfenced as it originates from solar power.¹⁴⁹ The percentage of RPOs varies depending on the State and the year, and failure to comply with these obligations can result in penalties or fines imposed by the State governments.¹⁵⁰

In this context, RPOs squarely fit our adopted definition of 'climate law' articulated at the start of this article, as RPOs (1) oblige relevant entities to reduce greenhouse gas emissions by ensuring that they purchase a certain percentage of electricity from RES; and (2) impose penalties for failing to do so. Additionally, RPOs create demand for renewable electricity in India, and such demand has reduced prices for renewable electricity, making it competitive with coal-powered electricity. Since RPOs were introduced in 2003, India has significantly expanded its share of renewably sourced electricity.¹⁵¹

¹⁴⁴ Yatish Pachauri, 'Status of Renewable Purchase Obligations (RPOS) in India: An Effective Tool to Indorse Solar Energy', 6(6) *Journal of Positive School Psychology* (2022), 9336-51.

¹⁴⁵ 'Electricity' as a legislative subject matter falls in the concurrent list of the Indian constitution, which means that both the federal and State governments can make law on 'Electricity'. See Entry 38, List-III of the Indian Constitution.

¹⁴⁶ *Ibid.*

¹⁴⁷ Mandhir Kumar Verma, et al., 'Indian Power Distribution Sector Reforms: A Critical Review', 144 *Energy Policy* 11672 (2020).

¹⁴⁸ See, Jignesh P. Shah, Shefali Talati, and Satish Chetwani, 'Renewable Energy Policies and Regulation in India', 65(3) *Water and Energy International* 43 (2022).

¹⁴⁹ *Ibid.*

¹⁵⁰ *Ibid.*

¹⁵¹ Chandrika Bothra, 'Navigating the Regulatory Environment for Renewable Energy in

In a series of cases, either the government or renewable energy producers have filed suit against DISCOMs for not fulfilling their RPOs.¹⁵² These cases have resulted in either imposing penalties on distribution companies for non-compliance with RPOs or ringfencing funds for purchasing electricity generated from RES, aiming to phase down the demand for coal-based electricity. Still, none of these non-compliance cases appear in the leading climate litigation database or in climate law scholarship discussing climate change mitigation measures in India.

The only RPO-related case covered in climate-law scholarship or the leading database is *Hindustan Zinc Ltd v. Rajasthan Electricity Regulatory Commission*.¹⁵³ This case concluded that captive power generators must comply with RPO requirements. One possible explanation for including the *Hindustan Zinc* case is that it reached India's Supreme Court. In contrast, other RPO-related cases were mainly decided by the specialized tribunal designated to hear cases related to the Electricity Act. Additionally, State-level regulations on RPOs are not discussed in the climate-law scholarship on India.

RPO-related case law and regulations do not fall neatly into any of the three approaches discussed in Section 2, which scholars understand as identifying climate law in India. RPOs do not trickle down from the UNFCCC or any other international agreement on climate change, nor do they fall under EIA or human-rights approaches. Although equivalent obligations to purchase RES fall under umbrella climate legislation or characterized as climate regulation in the Global North, in India, neither the federal government nor any State government explicitly recognizes RPOs as within the scope of legislation or regulations on climate change. It is important to note that the Electricity (Amendment) Act of 2003, which layers the RPOs into existing electricity legislation in India, has been listed as climate-change-related legislation in India by climate-law databases.¹⁵⁴ Still, climate-law scholarship in India needs to discuss either the case law emerging out of RPOs or analyse the impact of RPOs as climate law in India. While Ghosh,¹⁵⁵ Peel and Lin,¹⁵⁶ Chaturvedi,¹⁵⁷ and Mohan¹⁵⁸ did not include RPO-related case law on non-compliance with RPOs in their analysis of climate change litigation in India, we suggest that such sectoral analysis—within and beyond the energy context—offers a more contextual, accurate and comprehensive approach to conceptualizing climate law in India.

India and Renewable Purchase Obligations', 14(1) *George Washington Journal of Energy and Environmental Law* (2023), 1-5.

¹⁵² For a list of cases and their analysis see supra note 40.

¹⁵³ Civil Appeal No. 4417 of 2015; (2015) 12 SCC 611.

¹⁵⁴ Climate Change Laws of the World lists India's Electricity (Amendment) Act 2003 as climate legislation: <<https://climate-laws.org/search?q=india&c=Legislation>>.

¹⁵⁵ Ghosh, supra note 32.

¹⁵⁶ Peel and Lin, supra note 42.

¹⁵⁷ Chaturvedi, supra note 33.

¹⁵⁸ Mohan et al., supra note 33.

5. The Way Forward

Apart from RPOs, which apply to the energy sector, regulations that incentivize reducing or penalize entities for not reducing greenhouse gas emissions are also imposed in other sectors. Examples may be mentioned, such as regulations on the phasing out diesel vehicles at subnational levels in the transport sector,¹⁵⁹ national building codes in the construction sector, and green sovereign bonds in the finance sector.¹⁶⁰ All illustrate the layering of climate-change-related administrative actions on existing legislation in India, either incentivizing or requiring entities to reduce greenhouse gas emissions. However, current climate law scholarship focused on India does not comprehensively analyse such measures. The current scholarship primarily follows the three approaches discussed in Section 2, none recognizing India's 'layering' approach to climate regulation across different sectors.

There are two reasons why the three prevailing approaches to analysing climate law in India do not encompass the layering approach to climate law. First, all three approaches—trickle-down, EIA as climate law, human rights law and climate change—do not appreciate the distinction between climate law and environmental law. While broad-based environmental legislation is applicable across different sectors in India (e.g., transportation, energy, and finance, among others), there is no broad-based climate law. Therefore, by conflating environmental law with climate law, all three approaches apply broad-based environmental law and its principles to climate change mitigation measures in India. This approach conceptually restrains researchers from carrying out an in-depth sector-wide analysis.

Second, none of the three approaches consider the role of legal structure in shaping climate mitigation measures in India. India has a multilevel legal system, and its constitution neatly allocates law-making power through its three-list system—List I (Union list) matters on which the federal government can make law, List II (State list) matters on which States can legislate, and List III (concurrent list) matters on which both the federal government and States can make law.¹⁶¹ In a conflict between federal and State laws, federal law prevails. This three-list system results in a unique regulatory framework for each sector. For instance, in the energy sector, hydrocarbons, including fossil fuels, fall under the federal government's legislative ambit.¹⁶²

In contrast, subject matter allied to the energy sector—such as land and water—is within the remit of State governments.¹⁶³ Therefore, how measures to reduce greenhouse gas emissions are implemented in the energy sector depends on how the States interact with each other through the overarching regulatory framework. Such interactions can differ substantially, depending on the sector.¹⁶⁴ Differences in the

¹⁵⁹ Thokchom Subhaschandra Singh, et al., 'Exhaust Emission Characteristics Study of Light and Heavy-Duty Diesel Vehicles in India', 29 *Case Studies in Thermal Engineering* 101709 (2022).

¹⁶⁰ See *supra* notes 138, 139, and 140.

¹⁶¹ Article 246, Constitution of India.

¹⁶² See Entry 53, List-I, Constitution of India

¹⁶³ See Entry 17, 18, List-II, Constitution of India.

¹⁶⁴ Such differences in regulatory structures are discussed in Shashi Kant Yadav, Chhaya Bhardwaj, and Gopal K. Sarangi, 'Emerging Regulatory Gaps in Fracking-Specific Water Security Issues in India:

sectoral regulatory frameworks are important, as climate mitigation measures are layered in each industry within the existing regulatory frameworks. Instead of passing a new climate law and institutionalizing new climate-mitigation frameworks, numerous slight administrative layerings are applied in each sector through their specific regulatory structures.

The three approaches thus fail to contextualize how the sectoral regulatory structures and India's legal structure influence the application of climate law.

We have shown this in our RPO discussion, as an example. Since electricity falls in List III, each State government has the authority to determine the regulatory framework within which the RPO scheme operates. In contrast, the federal government decides the thresholds and structural framework of RPOs; and State governments can adjust the percentage reserved for RPOs within their jurisdiction, as well as the enforcement mechanism—such as the nature of penalties or the quantum of fines.

For these reasons, it is vital to reimagine how we view climate law in India. One such way is a cartography approach. We propose mapping regulations or laws that incentivize or oblige an entity to reduce greenhouse gas emissions across different sectors. This approach would address the two gaps we identified in the prevailing analytical approaches. First, mapping climate change mitigation measures in different sectors (such as energy, agriculture, transportation, and finance) would not presume that climate law is a part of the Indian environmental law framework. Second, since each sector in India has its specific regulatory framework as a result of how federal and State levels interact (the three-list system in India), a cartography exercise would better contextualize the impact of legal or regulatory structures on climate law and could account for the spectrum of policies relating to India's energy, agriculture, land-use, and waste-management sectors.

Additionally, since the Court has recently recognised a 'right against the adverse effect of climate change' under Article 21 of the Indian Constitution, it is important to analyse how such a right can impose obligations on the government to mitigate the impact of climate change. One must exercise caution before equating the right as recognized by the Supreme Court in *M K Ranjithsinh* with such rights recognized in other contexts. The Indian administration does not typically recognise administrative tools like carbon budgets or carbon modelling, which help in measuring the impact of a proposed project on the climate. Additionally, as the Supreme Court observed, this right is subject to a 'holistic view' of sustainable development.¹⁶⁵ Therefore, in India, it is yet to be seen how such a right is implemented and further interpreted by the Supreme Court and the NGT, especially in the light of the existing right to a clean environment.¹⁶⁶

Lessons From The United States "Shale Revolution", *Environmental Law Review* (2024), <<https://doi.org/10.1177/14614529241230680>>.

¹⁶⁵ See *M K Ranjithsinh* case, supra note 14, at para. 10 and para. 59.

6. Conclusion

The current literature on climate law in India broadly adopts three prevailing approaches, none of which comprehensively conceptualizes climate law in India. To address this problem, we propose a new approach to studying climate law in the country, which we describe as the ‘administrative layering’ approach. However, to adopt the new approach, it is first essential to differentiate between climate law and environmental law, which are erroneously used synonymously in the Indian context. While broad-based environmental legislation and legal principles apply across different sectors (e.g. transportation, energy, and finance), there is no broad-based climate law. By conflating environmental law with climate law, all three prevailing approaches apply broad-based environmental law and its principles to climate change mitigation measures in India. This approach conceptually restrains researchers from carrying out an in-depth sector-wide analysis. Moreover, viewing Indian climate law through the three prevailing approaches also fails to appreciate the role of legal structure in shaping climate change mitigation measures in India.

We argue, then, that it is essential to look beyond the three prevailing approaches adopted in current scholarship on climate law in the Indian context. An alternative approach that offers greater contextualization is to examine the ‘administrative layering’ of existing legislation with climate change mitigation measures. This article proposes a three-step approach to administrative layering, which first requires consideration of climate law as distinct from environmental law, second involves a cartography (mapping) exercise to identify regulations or laws that incentivize or oblige an entity to reduce greenhouse gas emissions across different sectors, and finally evaluates their cumulative impacts. In doing so, scholars of climate law in India must keep in mind that each of these measures operates in its specific regulatory structure and may have a different impact on climate change mitigation.