Reconstructing Legal Thought: A Multidisciplinary Framework for Emerging Rights in the 21st Century

Dhanashree Padshetty[99]

ABSTRACT

The accelerating pace of global transformation driven by technology, climate change, and socio-economic inequalities demands a reimagination of law as an adaptive and collaborative discipline. This paper introduces the concept of "Cognitive Environmental Rights", a new category of rights that integrates mental well-being and environmental balance within the framework of human dignity. It argues that as artificial intelligence, digital surveillance, and ecological degradation increasingly influence human life, traditional notions of rights must expand beyond physical and economic security to encompass mental autonomy and environmental harmony.

Drawing from psychology, environmental science, and technology studies, the paper situates these emerging rights within a broader interdisciplinary framework. For instance, the intersection of law and neuroscience provides insights into cognitive freedom and consent in digital spaces, while the fusion of environmental ethics and jurisprudence emphasizes the intrinsic link between ecological stability and human survival. By merging these perspectives, the study highlights the inadequacy of purely doctrinal methods in addressing contemporary challenges such as algorithmic bias, digital addiction, and climate injustice.

The paper proposes a multidisciplinary reform model that embeds these new rights into national and international legal systems through constitutional interpretation, data governance policies, and sustainable development frameworks. It calls for reorienting legal education and policymaking towards interdisciplinarity where collaboration between lawyers, scientists, economists, and sociologists becomes essential for crafting just, inclusive, and future ready legal systems. Ultimately, the study envisions law not as an isolated discipline, but as an evolving social instrument capable of safeguarding both the human mind and the planet in the age of transformation.

[99] Law Student at Asian Law College, Noida.

Keywords: Multidisciplinary law, Climate justice, Anthropocene, Sustainable development, Environmental governance, Cognitive environmental rights.

INTRODUCTION

An interdisciplinary approach in law involves a deeper integration of multiple disciplines to create new insights, fostering a comprehensive understanding of legal issues by examining multiple disciplines are studied alongside one another to analyse a legal issue, drawing distinct knowledge from each field without necessarily fully integrating them. Both interdisciplinary and multidisciplinary approaches are essential for addressing complex legal them through various lenses. Conversely, a multidisciplinary approach suggests that problems, creating effective policy, and understanding the real-world impact of the law beyond its formal text. These interdisciplinary and multidisciplinary studies are crucial for environmental laws because they provide the holistic understanding, innovative solutions, and effective implementation needed to tackle complex issues. Environmental problems like climate change and pollution are inherently complex, requiring a range of perspectives to understand their causes, effects, and potential solutions. A multidisciplinary approach integrates knowledge from various fields to create comprehensive and robust solutions that address environmental, social, and economic factors simultaneously. It is well recognized that protecting and preserving environmental qualities require input from multidisciplinary experts, and that environmental engineering and sciences programs should be interdisciplinary in nature and include aspects of various engineering and science disciplines(Sands, 2018).

Environmental degradation has emerged as one of the most significant detrimental issues in the contemporary world. The 21st century has profoundly reshaped the global landscape , introducing a complex interplay of technological, social, and ecological transformations that place unprecedented demands on the traditional frameworks of legal thoughts. The environmental issues are growing rapidly and had became one of the global issue. The increase in health problems shows what can happen when environmental process are not legal. According to research, about 10,000 people die every year in the country's capital due to air pollution(Centre for Science and Environment [CSE], 2023). The world today confronts a multitude of environmental problems, more than ever before, over a wider range of spatial and temporal scales, and requiring various skills for proper control(Luthy et al.1992). This article argues for the imperative reconstruction of legal thought, advocating for a robust

multidisciplinary framework designed to effectively contend with the emergence of new categories of rights. This paper assesses the need for an interdisciplinary approach in environmental education.

HISTORICAL ROOTS OF ENVIRONMENTAL LAW AND POLICY

The evolution of legal thought reflects humanity's constant pursuit of order, justice, and social harmony. From the Code of Hammurabi[100] to the philosophies of Greece and Rome, early traditions laid the foundations of legal reasoning. During the medieval era, theology shaped law by merging divine and secular authority. The Enlightenment of the 17th and 18th centuries then marked a turning point, emphasizing individual freedom, natural rights, and the social contract ideas that shaped constitutionalism, the separation of powers, and civil liberties [101].

The early roots of environmental law reveal humanity's deep connection with nature. Ancient societies, guided by spiritual and cultural values, regarded the environment as sacred and practiced sustainable methods such as soil preservation in China, India, and Peru more than 2,000 years ago. Though not formalized as environmental law, these practices reflected an inherent understanding of ecological balance and responsible resource use (Weyler, 2020).

In India, environmental awareness gained strength after independence, most notably through the Chipko Movement. Led by Himalayan villagers, this movement embodied non-violent resistance as people hugged trees to prevent deforestation. It became a symbol of environmental justice, linking rural livelihoods with ecological preservation and inspiring global activism. Responding to growing environmental concerns, the Indian government established the Department of Environment in 1980, later upgraded to the Ministry of Environment, Forest and Climate Change, and enacted the Environment Act[102], following the Bhopal Gas Tragedy creating a unified legal framework for sustainable development[103] .

The evolution of environmental law globally and in India thus demonstrates how legal thought adapts to new environmental realities. Addressing the ecological crisis demands a multidisciplinary approach that combines law with science, economics, technology, and ethics.

[100] The Code of Hammurabi (c. 1754 B.C.E.).
[101] JOHN SALMOND, JURISPRUDENCE (Sweet & Maxwell 2019).
[102] Environment (Protection) Act, 1986, No. 29, Acts of Parliament, 1986 (India).
[103] MADHAV GADGIL & RAMACHANDRA GUHA, ECOLOGY AND EQUITY: THE USE AND ABUSE OF NATURE IN CONTEMPORARY INDIA (Routledge 1995).

Such integration ensures that environmental governance is both scientifically sound and socially just, advancing climate justice and sustainable coexistence in the 21st century.

LAW AS AN INSTRUMENT OF SOCIAL AND ENVIRONMENTAL ORDER

Law functions as a structured mechanism for regulating human conduct and ensuring collective welfare. It also shapes markets, assigns duties, and guides decisions at scale. When teams blend law with science, health, and economics, these levers get smarter and fairer. Within environmental governance, it functions not merely as a mechanism of control but also as an instrument for cultivating public awareness and organizational responsibility(Boyle & Anderson, 1996). The structure of environmental law in India reflects a dual function it restricts harmful human activities while promoting sustainable practices.

Key environmental laws such as the Water Act [104], Air Act [105], and Environment Protection Act (1986) form the foundation of India's environmental framework. Constitutional provisions under Articles 48A and 51A(g) establish state and citizen duties toward environmental protection. Supplementary legislations like the Public Liability Insurance Act (1991) and Factories (Amendment) Act (1987) reinforce accountability. Landmark judgments in *Ratlam* [106] and *M.C. Mehta* [107] further recognized the right to a clean environment as an integral part of Article 21, transforming ecological protection into a constitutional obligation (Divan & Rosencranz, 2022).

At the global level, law fosters environmental order through cooperative frameworks and normative instruments. The Stockholm Declaration (1972) recognized the right to a healthy environment, while the Brundtland Report (1987) and Rio Declaration (1992) emphasized sustainable development, intergenerational equity, and polluter-pays responsibility(UNEP, 1992). Subsequent treaties like the Kyoto Protocol (1997) and Paris Agreement (2015) codified collective legal commitments to address climate change (Bodansky, 2016).

[104] Water (Prevention and Control of Pollution) Act, 1974, No. 6, Acts of Parliament, 1974 (India).
[105] Air (Prevention and Control of Pollution) Act, 1981, No. 14, Acts of Parliament, 1981 (India).
[106] *Municipal Council, Ratlam v. Vardhichand, (1980) 4 SCC 162 (India).*
[107] M.C. Mehta v. Union of India, (1987) 1 SCC 395 (India).

India's National Environment Policy (2006) integrated environmental concerns into economic planning, encouraged market-based mechanisms, and promoted participatory governance (MoEFCC, 2006). Alongside global frameworks, these initiatives highlight law's dual role as a moral and structural tool, converting ethical principles into enforceable norms that balance development with sustainability (Sands & Peel, 2018). Recently, environmental law has evolved through principles like precaution, public participation, and polluter-pays, while adopting modern mechanisms such as eco-taxes, emission trading, ISO 14000 standards, and negotiated agreements to strengthen environmental governance.

IMPORTANCE OF INTERDISCIPLINARY AND MULTIDISCIPLINARY APPROACHES

The significance of interdisciplinary and multidisciplinary approaches in contemporary legal thought lies in their ability to provide a comprehensive understanding of complex social and environmental problems. Modern issues such as climate change, pollution, biodiversity loss, and the degradation of natural resources are no longer confined to a single domain of knowledge. These challenges operate at the intersection of science, law, economics, ethics, and politics, demanding collaborative frameworks that go beyond the traditional boundaries of legal reasoning. A purely legalistic or doctrinal response to such problems is inadequate because environmental harm often involves intricate causal chains and global consequences that require multiple forms of expertise. Hence, an interdisciplinary and multidisciplinary approach allows for a deeper and more informed analysis of both the causes and the remedies of environmental degradation(Sands et al., 2021).

One of the foremost advantages of such an approach is that it ensures comprehensive understanding. Environmental problems like climate change cannot be analysed solely through legal provisions or policy documents; they must also be examined through scientific data, technological innovation, and social behaviour. The integration of these perspectives helps identify not only the visible legal and political dimensions of the issue but also the underlying ecological and human factors that shape it (Leal Filho et al., 2021). For instance, understanding air pollution requires insights from chemistry to analyze pollutants, from medicine to assess health impacts, from economics to evaluate industrial costs, and from law to frame effective regulatory measures. Only through this collective understanding can the law design responses that are both effective and sustainable.

A multidisciplinary approach fosters holistic and practical solutions by integrating insights from law, science, economics, and social sciences (Boyd et al., 2022). Climate policies that combine regulation with incentives for innovation and public participation are more effective than isolated legal measures. This integration ensures that environmental governance is legally sound, socially inclusive, and economically viable. Moreover, grounding laws in scientific evidence strengthens their legitimacy and enforceability, as policymakers and courts rely on expert research to address pollution, industrial risks, and ecological impacts (Sands et al., 2021; UNEP, 2023).

Furthermore, effective implementation of environmental laws depends on the union of legal mechanisms, scientific understanding, and social awareness. When people understand the scientific basis of environmental harm, they are more likely to comply with legal norms and participate in enforcement efforts (Leal Filho et al., 2021). Similarly, fostering collaboration between scientists, policymakers, legal experts, and communities strengthens the governance system by creating a shared responsibility for environmental protection. Such cooperation leads to more transparent decision making and enhances public trust in environmental institutions. Lastly, an interdisciplinary framework encourages innovation by blending the strengths of multiple disciplines. It opens space for developing sustainable technologies, renewable energy models, and conservation strategies that combine legal regulation with scientific creativity.

CLIMATE JUSTICE AND THE EVOLUTION OF GLOBAL LEGAL CONSCIOUSNESS

Climate justice marks a paradigm shift from traditional environmental protection to a rights based framework that centres on fairness, equality, and sustainability. It demands the equitable distribution of environmental benefits and burdens among all sections of society, irrespective of geography, class, or income. Originating from environmental justice movements in the United States during the 1980s, the idea gradually expanded into a global movement advocating for intergenerational equity and shared responsibility for planetary survival (Ali, Gulrez & Sawan, 2020). The Aarhus Convention (1998) further institutionalized environmental democracy through its three key pillars access to information, public participation, and access to justice establishing a legal foundation for citizen-driven environmental governance (UNECE, 1998). In India, the idea of climate justice became more

pronounced after the Bhopal Gas Tragedy (1984), which exposed the human cost of industrial negligence and led to landmark reforms such as the Environment (Protection) Act, 1986. Since then, climate justice has been recognized not only as an environmental concern but also as a matter of human rights and social justice.

Within the Indian legal framework, climate justice has evolved through progressive judicial interpretation and policy reform. Indira Gandhi's speech at the 1972 Stockholm Conference underscored that "poverty is the greatest polluter," linking environmental protection directly to economic and social development(Gandhi, 1972).This vision inspired the judiciary to expand the constitutional meaning of *the right to life* under Article 21 to include the right to a clean and healthy environment, as seen in M.C. Mehta v. Union of India (1987)and Karnataka Industrial Area Development Board v. C. Kenchappa [108] (Supreme Court of India, 2006). Through these decisions, the Supreme Court of India embedded the principles of polluter pays, precautionary action, and absolute liability within domestic jurisprudence, thereby bridging environmental ethics with constitutional justice. As scholars note, achieving climate justice in India requires aligning environmental protection with sustainable development ensuring that policies address poverty, education, and energy access while maintaining ecological balance (Ali et al., 2020; Boyd, 2022).

RECONSTRUCTING LEGAL THOUGHT IN THE ANTHROPOCENE: TOWARDS A SUSTAINABLE AND EQUITABLE FUTURE

The Anthropocene era has redefined humanity's relationship with the planet, demanding a transformation in how law perceives, protects, and sustains the environment. India's environmental jurisprudence has shown remarkable adaptability by interpreting Article 21 of the Constitution to encompass the right to a clean and healthy environment and by integrating doctrines like public trust, precautionary action, and polluter pays within its constitutional framework (Shakya, 2025; Sands et al., 2021). Yet, the effectiveness of these doctrines depends on the inclusivity and enforceability of climate governance. The challenge is not merely to legislate for environmental protection but to ensure that the most vulnerable communities tribals, farmers, coastal dwellers, and urban poor are active participants in climate decision-making. The Forest Rights Act[109], Environment (Protection) Act (1986), and National Action

[108] Karnataka Industrial Area Development Board v. C. Kenchappa, (2006) 6 SCC 371 (India).
[109] The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, No. 2, Acts of Parliament, 2007 (India).

Plan on Climate Change[110] embody attempts to bridge ecological sustainability with social justice, but gaps persist in their grassroots execution and in ensuring equitable access to environmental benefits (Government of India, 2008; Sharma, 2018). Reconstructing legal thought in the Anthropocene thus requires a multidimensional approach one that merges environmental ethics, social equity, indigenous knowledge, and participatory governance into the core of law-making.

A reconstructed legal order must move beyond reactive legislation toward preventive, participatory, and justice oriented governance. The judiciary, while progressive in recognizing climate rights through Public Interest Litigations, must be complemented by robust policy frameworks and institutional reforms that make environmental justice accessible to marginalized groups. India's commitment under the Paris Agreement (2015) and the adoption of State Action Plans on Climate Change (SAPCCs) reflect a growing recognition of sustainable governance; however, the absence of binding accountability and limited local involvement remain significant hurdles(UNFCCC, 2015; Government of India, 2021) A future-ready legal framework should prioritize climate equity, adaptive resilience, and intergenerational justice, reinforcing the idea that environmental protection is inseparable from human dignity and development. In the Anthropocene, reconstructing legal thought means designing systems of law that are anticipatory, inclusive, and ecologically grounded laws that do not merely govern human conduct but sustain life itself.

CONCLUSION

The 21st century demands a transformation in legal thinking that aligns law with the realities of environmental, technological, and social change. This research underscores that traditional, single-discipline approaches are inadequate to address complex global challenges such as climate change, pollution, and ecological degradation. A multidisciplinary and interdisciplinary framework integrating law with science, economics, ethics, and social policy is essential to create sustainable, inclusive, and enforceable solutions. Law must evolve from being merely a tool of control to becoming an instrument of balance that harmonizes human development with environmental preservation.

[110] National Action Plan on Climate Change (2008) (India).

India's legal evolution, reflected in constitutional provisions, progressive judgments, and policy initiatives, demonstrates how environmental protection has become central to justice and governance. Yet, achieving lasting impact requires stronger cooperation among policymakers, scientists, and communities, ensuring participatory and equitable decision-making. Reconstructing legal thought in the Anthropocene era means embedding sustainability, inclusivity, and climate justice at the heart of jurisprudence creating a future where law not only safeguards rights but also preserves the planet for generations to come.