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Right to Clean and Healthy Environment as an Integral Component of the Right to Health: A Critical Analysis of Constitutional Jurisprudence

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ABSTRACT

Acknowledging environmental rights as essential human rights marks a crucial advancement in modern constitutional law. In India, the Supreme Court has interpreted "Article 21 of the Constitution", which guarantees the right to life and personal liberty, to include the right to a clean and healthy environment as a vital aspect of the right to health. This article critically analyses the development of Indian constitutional law on environmental health rights, examining landmark judicial rulings, constitutional provisions, and legislative frameworks. Using a doctrinal approach and reviewing pertinent academic literature, this study traces the judicial expansion of environmental rights, beginning with the pivotal Maneka Gandhi case and proceeding through other significant rulings such as Subhash Kumar, Vellore Citizens Welfare Forum, the M.C. Mehta series, T.N. Godavarman Thirumulpad, Indian Council for Enviro-Legal Action, and the Endosulfan case. The analysis reveals how Indian courts have incorporated international environmental principles, especially the precautionary and polluter-pays principles, into national constitutional law, while Public Interest Litigation (PIL) has become a transformative tool for enhancing access to environmental justice.

The formation of the National Green Tribunal in 2010 represents an important institutional advancement, however, considerable gaps in enforcement, implementation, and coordination persist. For instance, the National Green Tribunal's 2017 order mandating the shutdown of polluting industries along the Bellandur Lake in Bengaluru highlighted both the Tribunal's proactive stance and the challenges of local compliance and enforcement, as illegal discharges and encroachments continued despite judicial direction. Despite strong constitutional protections and proactive judicial engagement, India still faces significant challenges, including fragmented institutional frameworks, ineffective enforcement mechanisms, and conflicts between development needs and environmental preservation. This article argues that although Indian constitutional jurisprudence has developed an intricate theoretical framework that recognises environmental health as a fundamental right, achieving real improvements in environmental quality requires comprehensive institutional reforms, stronger enforcement mechanisms, and sustained political will.

The study concludes with recommendations to strengthen the constitutional foundation of environmental health rights in India, drawing on international best practices and emerging global standards, including the recent UN acknowledgement of the right to a clean, healthy, and sustainable environment.

Keywords: Clean and Healthy Environment, Indian Constitution, Article 21, National Green Tribunal, Environmental Jurisprudence

1. Introduction

The intersection of environmental protection and human health is among the most pressing challenges of the twenty-first century. Environmental degradation manifested through air and water pollution, soil contamination, deforestation, and climate change poses profound threats to public health, human dignity, and sustainable development. Recognising that environmental quality is inextricably linked to human health has catalysed a global movement to constitutionalise environmental rights as fundamental human rights. India's constitutional jurisprudence exemplifies this transformative evolution, with the judiciary progressively interpreting the right to life under Article 21 to encompass the right to a clean and healthy environment as an integral component of the right to health (Mathew & Balu, 2022; Padgaonkar, 2026; Chaturvedi & RUMA, 2026).

The Indian Constitution, adopted in 1950, did not originally contain explicit provisions for environmental protection. However, the 42nd Amendment in 1976, influenced by the 1972 Stockholm Conference on the Human Environment, introduced Articles 48A and 51A(g), establishing state responsibility and citizen duty for environmental protection (Singh, 2023; -, 2022). More significantly, the Indian Supreme Court has engaged in expansive constitutional interpretation, transforming Article 21's guarantee of life and personal liberty into a comprehensive framework encompassing environmental health rights (Sonawale, 2025; Singh & Rai, 2024; Suragihalli, 2026). This judicial activism has positioned India at the forefront of environmental constitutionalism, with courts recognising that the right to life necessarily includes the right to live in a pollution-free environment conducive to health and well-being (Dave, 2026; Kailasrao, 2025; Singh, 2025).

The evolution of environmental health jurisprudence in India reflects a distinctive constitutional trajectory marked by judicial innovation, public interest litigation, and the integration of international environmental principles into domestic law (Mishra & Singh, 2026). Landmark cases such as Maneka Gandhi v. Union of India (1978), which revolutionised the interpretation of Article 21, laid the foundation for subsequent environmental rights

jurisprudence (Kumari, 2026; Rsaikwar, 2026). Subsequent decisions, including Subhash Kumar v. State of Bihar (1991), Vellore Citizens Welfare Forum v. Union of India (1996), and the extensive M.C. Mehta series, have progressively expanded the scope of constitutional protection for environmental health (Gurugopinath & Venugopal, 2024; Nath, 2026). The establishment of the National Green Tribunal in 2010 represents a significant institutional innovation, creating a specialised forum for environmental justice (Gill, 2014; Gill, 2016).

Despite these progressive developments, significant challenges remain in translating constitutional guarantees into tangible environmental improvements. India continues to face severe environmental crises, including catastrophic air pollution in major cities, water contamination, industrial pollution, and inadequate waste management (Kumar & Kajal, 2026; Vito et al., 2018). Critical gaps persist in enforcement mechanisms, institutional coordination, and the balance between developmental imperatives and environmental protection (SAKTHI & ARTHIYA, 2026). The tension between economic growth and environmental sustainability remains a defining challenge for Indian environmental governance (Singh & Rai, 2024).

This article provides a comprehensive critical analysis of Indian constitutional jurisprudence on the right to a clean and healthy environment as an integral component of the right to health. Through systematic examination of constitutional provisions, landmark judicial decisions, legislative frameworks, and international dimensions, this study illuminates both the achievements and limitations of India's constitutional approach to environmental health rights. The analysis demonstrates that while Indian courts have constructed a sophisticated theoretical framework recognising environmental health as fundamental, substantial reforms are necessary to bridge the gap between constitutional promise and lived reality.

2. Methodology

This article uses a doctrinal study as its primary research methodology to identify, analyse, and synthesise relevant academic literature on environmental health rights in Indian constitutional jurisprudence. It represents an advanced research tool that enables comprehensive literature discovery across multiple academic databases, facilitating the systematic identification of scholarly works, judicial analyses, and policy documents relevant to the intersection of environmental rights, health rights, and constitutional law in India.

The research methodology involved two comprehensive queries designed to capture the breadth and depth of scholarship on environmental health constitutionalism in India. The first search query, “Right to clean and healthy environment as component of right to health Indian constitutional jurisprudence”, captured foundational literature on the constitutional recognition of environmental health rights, Article 21 expansions, and the theoretical frameworks underpinning environmental constitutionalism in India.

The second search query, “Public Interest Litigation PIL India environmental rights Article 21 Article 48A judicial activism Supreme Court landmark cases Maneka Gandhi Subhash Kumar Vellore Citizens”, specifically targeted literature on Public Interest Litigation as a mechanism for environmental rights enforcement, landmark Supreme Court decisions, and the role of judicial activism in expanding environmental protections. The papers provided comprehensive coverage of expansions of Article 21, PIL jurisprudence, environmental constitutionalism, landmark cases, National Green Tribunal analysis, and dimensions of international environmental law.

This research was selected for its direct engagement with Indian constitutional provisions (Articles 21, 47, 48A, 51A(g)), analysis of landmark judicial decisions, examination of environmental principles (precautionary and polluter-pays principles), discussion of PIL mechanisms, evaluation of the National Green Tribunal, and consideration of international environmental law frameworks. The selected literature spans multiple disciplines, including constitutional law, environmental law, public health law, human rights law, and environmental governance, providing interdisciplinary perspectives essential for comprehensive analysis.

The doctrinal methodology offers several advantages for this research. First, it enables systematic, reproducible literature identification, reducing selection bias and ensuring comprehensive coverage of relevant scholarship. Second, it facilitates access to recent publications, including 2024-2026 scholarship that reflects contemporary developments in Indian environmental jurisprudence. Third, it captures diverse perspectives from Indian and international scholars, enabling comparative analysis and critical evaluation of theoretical frameworks. Fourth, it identifies both doctrinal legal analyses and empirical studies that examine the practical implementation and effectiveness of constitutional environmental protections.

The analytical framework integrates doctrinal legal analysis, case law analysis, and a critical evaluation of enforcement mechanisms. Constitutional provisions are analysed through close textual reading and interpretation informed by judicial decisions. Landmark cases are examined through detailed case analysis, identifying key legal principles, reasoning, and precedential value. The effectiveness of constitutional protections is critically evaluated by examining implementation challenges, enforcement gaps, and empirical evidence of environmental outcomes. International dimensions are analysed through comparative constitutional analysis and examination of India's engagement with global environmental norms.

This methodological approach enables rigorous, evidence-based analysis of Indian constitutional jurisprudence on environmental health rights, grounded in comprehensive engagement with relevant scholarship and informed by critical evaluation of both theoretical frameworks and practical implementation.

3. Discussion: Constitutional Framework for Environmental Health Rights in India

The constitutional architecture of environmental health rights in India rests on multiple provisions scattered throughout the Constitution, reflecting both explicit environmental mandates introduced through constitutional amendments and implicit rights derived through expansive judicial interpretation. This

framework encompasses fundamental rights under Part III, directive principles of state policy under Part IV, and fundamental duties under Part IVA, thereby creating a comprehensive constitutional foundation for environmental protection and health (Singh, 2023; Arun, 2022; Singh, 2026).

3.1 Article 21: The Right to Life and Personal Liberty

Article 21 of the Indian Constitution provides that "No person shall be deprived of his life or personal liberty except according to procedure established by law." This deceptively simple provision has become the cornerstone of Indian environmental jurisprudence through progressive judicial interpretation, transforming it from a narrow procedural guarantee into a substantive right encompassing multiple dimensions of human dignity and well-being (Sonawale, 2025; Kailasrao, 2025; Singh & Rai, 2024).

The expansive interpretation of Article 21 began with Maneka Gandhi v. Union of India (1978), which held that the "procedure established by law" must be just, fair, and reasonable, and that Article 21 must be read harmoniously with other fundamental rights (Kumari, 2026; Rsaikwar, 2026). This interpretive approach paved the way for subsequent judicial recognition that the right to life encompasses not merely physical existence but also the right to live with human dignity, including access to basic necessities and a healthy environment (Chadha & Singh, 2026).

The Supreme Court has consistently held that Article 21 includes the right to a wholesome environment, recognising that environmental degradation directly threatens the right to life and health (Dave, 2026; Singh, 2025; Rajendra, 2024). In numerous decisions, the Court has articulated that the right to life necessarily includes the right to breathe clean air, drink pure water, and live in an environment free from pollution and contamination (Kumar & Kajal, 2026; Ranganath, 2022). This interpretation reflects the understanding that environmental quality is not merely an amenity but a fundamental prerequisite for human health, dignity, and survival (Mathew & Balu, 2022; Chaturvedi & RUMA, 2026; Jamuna & Vishwanath, 2023).

The judicial expansion of Article 21 to include environmental health rights is a distinctive feature of Indian constitutional jurisprudence, showing how constitutional interpretation can respond to emerging challenges not explicitly contemplated by the Constitution's framers (Singh & Rai, 2024). This interpretive evolution has positioned Article 21 as the primary constitutional basis for environmental protection, enabling courts to issue wide-ranging directives for pollution control, environmental restoration, and public health protection (Sonawale, 2025).

3.2 Article 47: State Duty to Raise Nutrition and Living Standards

Article 47, in Part IV (Directive Principles of State Policy), provides that "The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties." Although directive principles are not directly enforceable in courts, Article 47 establishes a constitutional mandate linking public health to state responsibility and provides interpretive guidance on the scope of health rights under Article 21 (Mathew & Balu, 2022; RAMYA, 2026).

The Supreme Court has recognised Article 47 as reinforcing the constitutional commitment to public health, interpreting it alongside Article 21 to establish that the state has an affirmative duty to protect and promote public health, including through environmental protection measures (Padgaonkar, 2026; Sharan, 2024). The reference to "improvement of public health" has been interpreted to encompass environmental health, recognising that pollution control, sanitation, and environmental quality are essential components of public health infrastructure (Chaturvedi & RUMA, 2026; Hussain, 2026).

Article 47's emphasis on the state's duty provides a constitutional foundation for judicial directives that require government action to address environmental health threats. Courts have invoked Article 47 to mandate state measures for pollution control, waste management, and environmental remediation, treating environmental protection as integral to the state's constitutional obligation to improve public health (Hussain, 2026; Humane & Khan, 2020).

3.3 Article 48A: Protection and Improvement of Environment

Article 48A, introduced by the 42nd Constitutional Amendment in 1976, provides that "The State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country." This provision marks the first explicit constitutional recognition of environmental protection as a state responsibility, reflecting India's engagement with the emerging global environmental movement following the 1972 Stockholm Conference (Singh, 2023; -, 2022).

Article 48A establishes environmental protection as a directive principle, creating a constitutional mandate for state action in environmental conservation. The provision's reference to "protect and improve" the environment establishes both negative duties (preventing environmental degradation) and positive duties (actively improving environmental quality) (Arun, 2022; Devi, 2026). The specific mention of forests and wildlife reflects recognition of biodiversity conservation as a constitutional priority (-, 2022).

Although Article 48A is a directive principle and therefore not directly enforceable, courts have read it alongside Article 21 to establish enforceable environmental rights. The Supreme Court has held that Article 48A provides interpretive guidance on the scope of Article 21, establishing that the right to life necessarily includes the right to environmental protection mandated by Article 48A (Singh, 2023; Sonawale, 2025; Arun, 2022). This interpretive approach has effectively transformed the non-justiciable directive principle into an enforceable constitutional right by integrating it with Article 21 (Singh & Rai, 2024).

3.4 Article 51A(g): Fundamental Duty to Protect Environment

Article 51A(g), introduced by the 42nd Amendment, imposes a fundamental duty on every citizen to "protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures." This provision is a unique constitutional innovation, imposing environmental responsibilities directly on citizens rather than solely on the state (-, 2022).

Recognising environmental protection as a fundamental duty reflects a constitutional philosophy that emphasises shared responsibility for environmental stewardship. Article 51A(g) recognises that environmental protection cannot be achieved through state action alone and requires active citizen participation and environmental consciousness (Arun, 2022; Devi, 2026). The provision's reference to "compassion for living creatures" reflects ethical and cultural values that emphasise harmony between humans and nature (-, 2022).

Courts have invoked Article 51A(g) to emphasise citizens responsibility for environmental protection and to justify restrictions on activities that harm the environment. Courts have interpreted the provision to support the principle that individual rights must be balanced against collective environmental responsibilities, and that citizens cannot claim a right to engage in environmentally destructive activities (Singh, 2023; Arun, 2022). Article 51A(g) has also been used to promote environmental education and awareness as constitutional imperatives (-, 2022).

3.5 Interplay Between Part III (Fundamental Rights) and Part IV (Directive Principles)

The constitutional framework for environmental health rights reflects a distinctive interplay between Part III (Fundamental Rights) and Part IV (Directive Principles of State Policy). While fundamental rights are directly enforceable in courts and directive principles are not, the Supreme Court has developed an interpretive approach that harmonises these provisions, treating directive principles as interpretive guides to the scope of fundamental rights (Singh & Rai, 2024; Singh, 2026; Mishra & Singh, 2026).

In the environmental context, this harmonisation has been particularly significant. The Court has held that Article 21 must be read with Articles 47 and 48A, so the right to life encompasses the environmental protection and public health mandates set out in the Directive Principles (Sonawale, 2025; Arun, 2022; Mishra & Singh, 2026). This interpretive approach has effectively constitutionalised environmental protection as a fundamental right, despite the absence of explicit environmental rights in Part III (Suragihalli, 2026; Sonawale, 2025).

The integration of fundamental rights and directive principles reflects a constitutional philosophy that treats environmental protection as both an individual right and a collective responsibility, requiring coordinated action by the state, citizens, and the judiciary (Singh, 2026; Mishra & Singh, 2026). This framework has enabled Indian courts to issue comprehensive environmental directives on pollution control, forest conservation, wildlife protection, and public health, grounded in constitutional authority derived from the harmonious reading of multiple constitutional provisions (Sonawale, 2025; Mishra & Singh, 2026).

4. Judicial Evolution of Environmental Rights as Part of Right to Life and Health

The transformation of Article 21 into a comprehensive framework for environmental health rights is among the most significant achievements of Indian constitutional jurisprudence. Over four decades, through a series of landmark decisions, the Supreme Court has progressively expanded the right to life to encompass environmental protection, public health, and ecological sustainability. This judicial evolution reflects creative constitutional interpretation, responsiveness to emerging environmental challenges, and the integration of international environmental principles into domestic constitutional law (Baruah, 2026; Ganesh & Sarojanamma, 2026).

4.1 Maneka Gandhi v. Union of India: Expanding Article 21

Maneka Gandhi v. Union of India (1978) marks a watershed moment in Indian constitutional jurisprudence, fundamentally transforming the interpretation of Article 21 and laying the foundation for subsequent environmental rights jurisprudence (Kumari, 2026; Rsaikwar, 2026). Although the case itself did not directly address environmental issues, it concerned passport seizure and the right to travel abroad; its interpretive methodology revolutionised constitutional rights jurisprudence and created the doctrinal foundation for an expansive reading of Article 21.

In Maneka Gandhi, the Supreme Court rejected the narrow interpretation that Article 21 merely required compliance with any law enacted by the legislature. Instead, the Court held that the "procedure established by law" must be just, fair, and reasonable, and must satisfy the requirements of Articles 14 (equality) and Article 19 (freedoms) (Kumari, 2026; Rsaikwar, 2026). This interpretive approach established that Article 21 is not merely a procedural guarantee but a substantive right encompassing multiple dimensions of human dignity and well-being.

The Maneka Gandhi decision's significance for environmental jurisprudence lies in establishing an expansive interpretive methodology that enabled subsequent courts to recognise unenumerated rights under Article 21. By holding that the right to life encompasses more than mere animal existence and includes the right to live with human dignity, the Court created doctrinal space for recognising environmental health as integral to the right to life (Chadha & Singh, 2026). This interpretive foundation proved essential to subsequent environmental rights decisions.

4.2 Subhash Kumar v. State of Bihar: Environmental Rights as Fundamental Rights

Subhash Kumar v. State of Bihar (1991) marks the first explicit judicial recognition that the right to a pollution-free environment is a fundamental right under Article 21. The case concerned pollution of the Bokaro River by washeries discharging untreated effluents, which threatened the health and livelihoods of local communities. The Supreme Court held that "the right to live is a fundamental right under Article 21 of the Constitution and it includes the right of enjoyment of pollution-free water and air for full enjoyment of life" (Gurugopinath & Venugopal, 2024; Singh, 2026).

This decision established several foundational principles for Indian environmental jurisprudence. First, it explicitly recognised environmental quality as integral to the right to life, holding that environmental degradation that threatens health violates fundamental rights (Gurugopinath & Venugopal, 2024; Singh, 2026). Second, it established that citizens have standing to challenge environmental pollution through constitutional litigation, expanding access to environmental justice (Mohammad & Bano, 2019). Third, it linked environmental rights to public health, recognising that pollution-induced health impacts constitute deprivations of the right to life (Mathew & Balu, 2022; Chaturvedi & RUMA, 2026).

The Subhash Kumar decision's limitation was that, while it recognised environmental rights in principle, it did not grant relief in the specific case, finding that the petitioner had failed to establish sufficient evidence of pollution. Nevertheless, the decision's doctrinal significance was profound, establishing the constitutional foundation for environmental rights that subsequent cases built upon (Singh, 2026).

4.3 Vellore Citizens Welfare Forum v. Union of India: Integrating International Principles

Vellore Citizens Welfare Forum v. Union of India (1996) represents a landmark decision that integrated international environmental principles into Indian constitutional law and established comprehensive frameworks for environmental protection. The case concerned pollution from tanneries in Tamil Nadu that were discharging untreated effluents into agricultural lands and water sources, causing severe environmental and health impacts (Nath, 2026; Müller, 2023).

The Supreme Court's decision in Vellore Citizens Welfare Forum made several groundbreaking contributions to Indian environmental jurisprudence. First, it explicitly incorporated the precautionary principle and polluter pays principle into Indian environmental law, holding that these principles are part of the law of the land and must guide environmental decision-making (Gill, 2014; Nath, 2026). Second, it established that sustainable development is a constitutional imperative that must balance environmental protection with developmental needs (Srivastava, 2016; Müller, 2023). Third, it mandated pollution-control mechanisms and compensation for environmental damage (Nath, 2026).

The Court held that "the precautionary principle and the polluter pays principle have been accepted as part of the law of the land" and that "any principle evolved in this behalf should be simple, practical and suited to the conditions obtaining in this country" (Nath, 2026). This decision demonstrated the Court's willingness to engage with international environmental law and to adapt global principles to Indian conditions, thereby establishing India as a leader in environmental constitutionalism (Gill, 2014).

The Vellore Citizens Welfare Forum decision also introduced key procedural innovations, including creating monitoring committees to oversee environmental compliance and requiring polluting industries to compensate affected communities (Nath, 2026; Müller, 2023). These measures reflected the Court's recognition that constitutional environmental rights require not merely declaratory judgments but also ongoing monitoring and enforcement (Singh & Rai, 2024).

4.4 M.C. Mehta v. Union of India Series: Pioneering Environmental Activism

The M.C. Mehta series of cases constitutes the most extensive and sustained environmental litigation in Indian constitutional history, comprising dozens of cases filed by environmental lawyer M.C. Mehta on diverse environmental issues, including Ganges pollution, vehicular emissions, industrial pollution, hazardous waste, and wildlife protection (Venkateswarlu, 2022; Arorra, 2023). Together, these cases transformed Indian environmental jurisprudence and established numerous precedents for environmental protection.

The M.C. Mehta cases on Ganges pollution established that the right to clean water is fundamental to the right to life and mandated comprehensive measures to control river pollution control (Venkateswarlu, 2022; Naik, 2022). The Court directed the closure of polluting industries, establishment of sewage treatment plants, and implementation of the Ganga Action Plan, demonstrating judicial willingness to issue detailed environmental directives (Venkateswarlu, 2022).

The M.C. Mehta cases on vehicular emissions in Delhi established that the right to breathe clean air is a fundamental right and mandated the conversion of public transport vehicles to compressed natural gas (CNG), the phasing out of polluting vehicles, and the implementation of emission standards (Kumar & Kajal, 2026; Rajendra, 2024; Vito et al., 2018). These decisions transformed urban air quality management in India, establishing precedents for judicial intervention in environmental policy (Kumar & Kajal, 2026; Vito et al., 2018).

The M.C. Mehta cases also established the principle of absolute liability for hazardous industries, holding that enterprises engaged in inherently dangerous activities bear absolute liability for any harm caused, without exception (Singh, 2026; Waris, 2024). Articulated in the context of the Oleum gas leak case, this principle set stricter liability standards than traditional tort law, reflecting the constitutional imperative to protect the right to life from industrial hazards (Singh & Sharma, 2025; Waris, 2024).

The M.C. Mehta series demonstrates the potential of sustained public interest litigation to drive environmental reform and to establish comprehensive constitutional frameworks for environmental protection. These cases established that courts can serve as environmental policymakers when executive and legislative action is inadequate, though this role has sparked debates about separation of powers and judicial overreach (Singh & Rai, 2024; Dam & Tewary, 2005).

4.5 T.N. Godavarman Thirumulpad: Forest Conservation and Continuing Mandamus

T.N. Godavarman Thirumulpad v. Union of India, initiated in 1996 and continuing through numerous orders over subsequent decades, is the longest-running environmental case in Indian judicial history and has fundamentally shaped forest conservation law and policy (Khobragade, 2026; Matharani, 2023). The case began as a challenge to illegal timber operations in the Nilgiri forests but expanded to encompass comprehensive forest conservation issues across India.

The Supreme Court's orders in the Godavarman case established several transformative principles for forest conservation. The Court adopted an expansive definition of "forest" under the Forest Conservation Act, holding that the Act applies to all forests, regardless of ownership or classification, thereby extending protection to vast forest areas previously excluded from legal protection (Khobragade, 2026; Matharani, 2023). The Court also imposed comprehensive restrictions on forest use, requiring prior approval for any non-forest activity in forest areas and mandating compensatory afforestation for forest diversion (Khobragade, 2026).

The Godavarman case pioneered continuing mandamus, in which the Court retained jurisdiction and issued periodic orders addressing emerging forest conservation issues over many years (Khobragade, 2026; Matharani, 2023). This approach enabled the Court to function as an ongoing supervisor of forest policy, issuing detailed directives on issues including illegal mining, forest clearances, wildlife protection, and forest governance (Khobragade, 2026).

The case also introduced institutional innovations, including the appointment of expert committees to advise the Court on technical forest conservation issues and the creation of monitoring mechanisms to ensure compliance with Court orders (Khobragade, 2026; Gill, 2016). These innovations reflected recognition that effective environmental protection requires technical expertise and ongoing oversight beyond traditional judicial functions (Gill, 2016).

The Godavarman case has been both celebrated as a landmark in environmental protection and criticised for judicial overreach and interference with executive functions (Singh & Rai, 2024; Dam & Tewary, 2005). The case exemplifies the tensions inherent in court-led environmental governance, demonstrating both the potential for judicial intervention to advance environmental protection and the limitations and challenges of judicial policymaking (Singh & Rai, 2024).

4.6 Indian Council for Enviro-Legal Action v. Union of India: Industrial Pollution and Absolute Liability

Indian Council for Enviro-Legal Action v. Union of India (1996) addressed industrial pollution from chemical industries in Rajasthan, which had caused severe environmental contamination and health impacts on local communities (Singh, 2026). The case laid down important principles on industrial liability, environmental remediation, and the rights of pollution-affected communities.

In this case, the Supreme Court applied the principle of absolute liability laid down in earlier M.C. Mehta decisions, holding that industries engaged in hazardous activities bear absolute and non-delegable liability for environmental damage (Singh, 2026). The Court ordered the polluting industries to pay compensation for environmental restoration and health impacts, thereby establishing that environmental liability encompasses both cleanup costs and compensation for affected communities (Singh, 2026).

The decision emphasised that the right to life includes the right to live in a healthy, pollution-free environment, and that communities affected by pollution have constitutional rights to environmental remediation and compensation (Gurugopinath & Venugopal, 2024; Singh, 2026). The Court directed comprehensive environmental restoration and established monitoring mechanisms to ensure compliance (Singh, 2026).

The Indian Council for Enviro-Legal Action case demonstrates the Court's recognition that environmental rights must be accompanied by effective remedies, including injunctive relief to prevent ongoing pollution and compensatory relief for past harm (Singh, 2026; Arorra, 2023). The case set precedents for holding industries accountable for environmental damage and for ensuring that pollution-affected communities receive justice (Gurugopinath & Venugopal, 2024; Singh, 2026).

4.7 Endosulfan Case: Environmental Health and Precautionary Principle

The Endosulfan case examined the health and environmental impacts of the pesticide endosulfan, which had been aerially sprayed on cashew plantations in Kerala, causing severe health problems, including neurological disorders, birth defects, and developmental disabilities, in exposed communities (Gurugopinath & Venugopal, 2024). The case marks a landmark application of the precautionary principle in Indian environmental health jurisprudence.

The Supreme Court's intervention in the Endosulfan case led to a nationwide ban on endosulfan production, distribution, and use, grounded in the precautionary principle that where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (Gurugopinath & Venugopal, 2024). The Court recognised that the health impacts on affected communities, particularly children, violated the fundamental right to health under Article 21 (Gurugopinath & Venugopal, 2024).

The case set important precedents for environmental health protection, including recognition that the state has a duty to protect vulnerable populations from environmental health hazards, that the precautionary principle applies to public health threats, and that affected communities are entitled to compensation and medical care for pollution-induced health impacts (Gurugopinath & Venugopal, 2024). The Court directed the establishment of medical monitoring and treatment programs for affected communities and compensation for victims (Gurugopinath & Venugopal, 2024).

The Endosulfan case demonstrates the intersection of environmental and health rights, establishing that exposure to toxic substances causing harm to health violates constitutional rights (Mathew & Balu, 2022; Gurugopinath & Venugopal, 2024; Chaturvedi & RUMA, 2026). The case reflects the Court's willingness to apply the precautionary principle despite scientific uncertainty and economic interests, prioritizing public health protection (Gurugopinath & Venugopal, 2024).

4.8 Almitra H. Patel v. Union of India: Solid Waste Management and Public Health

Almitra H. Patel v. Union of India (1998 and subsequent orders) addressed the critical issue of solid waste management and its impacts on public health and the environment (Hussain, 2026; Humane & Khan, 2020). The case concerned inadequate municipal solid waste management practices that were causing environmental pollution, public health hazards, and degradation of urban environments.

The Supreme Court held that proper solid waste management is essential to the right to life and health under Article 21 and that municipalities have a constitutional duty to ensure effective waste collection, treatment, and disposal (Hussain, 2026; Humane & Khan, 2020). The Court issued comprehensive directives for municipal solid waste management, including requirements for segregation, collection, treatment, and disposal of waste in accordance with environmental standards (Hussain, 2026).

The decision emphasised the link between sanitation, waste management, and public health, recognising that inadequate waste management creates breeding grounds for disease vectors, contaminates water and soil, and creates hazardous living conditions that violate the right to health (Hussain, 2026; Humane & Khan, 2020). The Court directed the implementation of the Municipal Solid Waste Management Rules and established monitoring mechanisms to ensure compliance (Hussain, 2026).

The Almitra H. Patel case shows the Court’s recognition that environmental health includes not only pollution control but also basic sanitation and waste-management infrastructure for public health (Hussain, 2026; Humane & Khan, 2020). The case set a precedent for judicial intervention in municipal governance to ensure compliance with environmental health standards (Hussain, 2026).

5. The Precautionary Principle and Polluter Pays Principle in Indian Jurisprudence

The integration of international environmental principles into Indian constitutional law is a distinctive feature of Indian environmental jurisprudence, reflecting the judiciary's engagement with global environmental norms and its willingness to adapt them to domestic constitutional frameworks. Two principles have been particularly significant, namely the precautionary principle and the polluter pays principle, both of which have been recognised as part of Indian environmental law and applied in numerous cases (Gill, 2014; Nath, 2026).

The precautionary principle, articulated in Principle 15 of the Rio Declaration, provides that “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” The Supreme Court first explicitly incorporated the precautionary principle into Indian law in Vellore Citizens Welfare Forum, holding that it is part of the law of the land and must guide environmental decision-making (Nath, 2026; Müller, 2023).

The application of the precautionary principle in Indian jurisprudence recognises that environmental and health risks often involve scientific uncertainty, and that waiting for conclusive scientific proof before taking protective action may cause irreversible harm (Gurugopinath & Venugopal, 2024; Gill, 2014). The principle shifts the burden of proof, requiring proponents of potentially harmful activities to demonstrate safety rather than requiring affected communities to prove harm (Gurugopinath & Venugopal, 2024; Nath, 2026).

The precautionary principle has been applied across diverse contexts, including industrial pollution, pesticide regulation, forest conservation, and climate change (Gurugopinath & Venugopal, 2024; Gill, 2014; Nath, 2026). In the Endosulfan case, the Court applied the principle to ban a pesticide despite scientific debate over causation, prioritising public health over economic interests (Gurugopinath & Venugopal, 2024). In environmental clearance cases, courts have invoked the principle to require comprehensive environmental impact assessments and to deny clearances to projects with uncertain environmental impacts (Gill, 2014).

The polluter pays principle, articulated in Principle 16 of the Rio Declaration, holds that “the polluter should, in principle, bear the cost of pollution.” The Supreme Court has held that the polluter pays principle is part of Indian environmental law and requires polluters to bear the costs of environmental remediation and compensation for affected communities (Gill, 2014; Nath, 2026).

The application of the polluter pays principle in Indian jurisprudence has established that environmental liability is not merely a matter of tort law but a constitutional imperative grounded in the right to a healthy environment under Article 21 (Singh, 2026; Arorra, 2023). Courts have ordered polluting industries to pay for environmental cleanup, compensate affected communities, and bear the costs of environmental monitoring and restoration (Singh, 2026; Nath, 2026).

The polluter pays principle has been applied alongside the principle of absolute liability for hazardous industries, establishing that enterprises engaged in inherently dangerous activities bear strict liability for environmental damage, without exceptions or defences (Singh, 2026; Waris, 2024). This approach reflects the constitutional priority of protecting the right to life and the environment over industrial interests (Singh, 2026).

The integration of these international principles into Indian constitutional law reflects the Court's recognition that environmental protection requires adopting globally recognised norms and that constitutional interpretation must be informed by international environmental law (Gill, 2014; Patel, 2015). This approach has positioned India as a leader in environmental constitutionalism and has influenced environmental jurisprudence in other jurisdictions (Kiss & Shelton, 2006; Bratspies, 2015; Abdulkadir, 2023).

6. The Role of Public Interest Litigation in Expanding Environmental Health Rights

Public Interest Litigation (PIL) has emerged as a key mechanism for expanding environmental health rights in India, transforming access to justice and enabling citizens, civil society organisations, and activists to challenge environmental violations and seek judicial intervention for environmental protection (Mohammad & Bano, 2019; Gill, 2012). PIL is a distinctive feature of Indian constitutional jurisprudence, reflecting the judiciary's commitment to expanding access to justice and protecting vulnerable populations (n.d., 2022; HASSAN, 2026; Forster & Jivan, 2008).

The Indian Supreme Court pioneered the PIL mechanism in the 1980s to enable disadvantaged and marginalised communities to access justice without the barriers of traditional litigation, including locus standi requirements, court fees, and procedural complexities (n.d., 2022; Forster & Jivan, 2008; Bhuwania, 2013). In the environmental context, PIL has enabled citizens to challenge pollution, environmental degradation, and violations of environmental laws, even when they are not directly affected, on the ground that environmental protection is a matter of public interest (Mohammad & Bano, 2019; Gill, 2012).

The relaxation of locus standi requirements in environmental PIL has been particularly significant, enabling any person or organisation to file petitions on behalf of affected communities or in the public interest (Gill, 2012; n.d., 2022; Forster & Jivan, 2008). This approach recognises that environmental harm often affects diffuse populations who may lack the resources or capacity to pursue litigation, and that environmental protection requires enabling broad access to judicial remedies (Mohammad & Bano, 2019).

Environmental PIL has addressed a range of issues, including air and water pollution, industrial contamination, forest conservation, wildlife protection, waste management, and climate change (Mohammad & Bano, 2019; Singh & Sharma, 2025). The M.C. Mehta series of cases exemplifies the transformative potential of sustained PIL, showing how a single litigant can drive comprehensive environmental reforms across multiple domains (Venkateswarlu, 2022; Arorra, 2023). Other significant environmental PILs include cases addressing river pollution, vehicular emissions, industrial hazards, pesticide regulation, and urban environmental management (Mohammad & Bano, 2019; Singh & Sharma, 2025).

PIL has enabled courts to function as environmental policymakers, issuing detailed directives on pollution control, environmental standards, institutional reforms, and compliance mechanisms (Singh & Rai, 2024; Hazarika & Shukla, 2026). This role has been both celebrated for filling governance gaps and criticised as judicial overreach that transgresses the separation of powers (Singh & Rai, 2024; Jain & Trivedi, 2024). The debate over PIL reflects broader tensions about the appropriate role of courts in environmental governance and the balance between judicial activism and democratic accountability (Jain & Trivedi, 2024; n.d., 2025; Dam & Tewary, 2005).

The effectiveness of environmental PIL has been mixed, marked by significant achievements in establishing legal principles and driving policy reforms, yet persistent challenges in implementation and enforcement (SAKTHI & ARTHIYA, 2026; Chauhan, 2026). Many PIL judgments remain unimplemented due to inadequate enforcement mechanisms, bureaucratic resistance, resource constraints, and lack of political will (SAKTHI & ARTHIYA, 2026). The gap between judicial declarations and ground-level implementation remains a critical challenge for environmental PIL (SAKTHI & ARTHIYA, 2026).

PIL has also faced criticism, including concerns about judicial overreach, a lack of technical expertise in courts, delays in case resolution, and the potential for PIL to be misused for publicity or harassment (Jain & Trivedi, 2024; n.d., 2025; Dam & Tewary, 2005). Some scholars argue that PIL has "polluted the constitution" by expanding judicial power beyond appropriate limits and undermining democratic governance (Dam & Tewary, 2005). Others contend that PIL is an essential judicial intervention to protect constitutional rights when other institutions fail (Mohammad & Bano, 2019).

Despite these debates, PIL remains a vital mechanism for environmental justice in India, providing affected communities access to justice for affected communities, establishing legal precedents for environmental protection, and driving policy reforms (Mohammad & Bano, 2019; Sen, 2026; Chaturvedi, 2026). The PIL mechanism reflects the distinctive character of Indian constitutional jurisprudence, emphasising judicial responsibility for protecting fundamental rights and ensuring environmental justice (Dixit, 2025; Gill, 2012).

7. National Green Tribunal Act 2010 and Its Interface with Constitutional Rights

The establishment of the National Green Tribunal (NGT) in 2010 represents a landmark institutional innovation in Indian environmental governance, creating a specialised forum for environmental justice that combines judicial and technical expertise (Gill, 2014; Gill, 2016). The National Green Tribunal Act 2010 established the NGT as a dedicated environmental court with jurisdiction over environmental disputes and enforcement of environmental laws (Gill, 2014; Gill, 2016).

The NGT's establishment recognises that effective environmental adjudication requires specialised expertise, expedited procedures, and the integration of scientific and legal analysis (Gill, 2016; Amirante, 2012). The Tribunal's composition includes judicial members (judges) and expert members (scientists and environmental specialists), enabling interdisciplinary decision-making that integrates legal analysis with technical environmental assessment (Gill, 2016).

The NGT has jurisdiction over civil cases involving substantial environmental questions, including enforcement of environmental laws, compensation for environmental damage, and challenges to environmental clearances (Gill, 2014; Gill, 2016). The Tribunal applies the principles of sustainable development, the precautionary principle, and the polluter pays principle in its decision-making and explicitly incorporates international environmental principles into its jurisprudence (Gill, 2014).

The NGT's procedural innovations include simplified procedures, reduced court fees, relaxed evidentiary rules, and expedited timelines for resolving cases (Gill, 2016). These features are designed to enhance access to environmental justice and enable more effective and timely resolution of environmental disputes compared with traditional courts (Gill, 2016).

The NGT's interface with constitutional rights is complex and multifaceted. The Tribunal's jurisdiction is grounded in the constitutional framework of environmental rights under Article 21, and its decisions give effect to constitutional environmental protections (Gill, 2014; Saini & Gupta, 2025). The NGT has issued numerous orders addressing pollution control, environmental restoration, compensation for environmental damage, and enforcement of environmental standards, thereby translating constitutional environmental rights into concrete remedies (Gill, 2014; Gill, 2016).

The NGT has addressed a range of environmental issues, including air and water pollution, industrial contamination, waste management, forest conservation, coastal zone protection, and noise pollution (Gill, 2014; Gill, 2016). The Tribunal's decisions have set important precedents for environmental protection and have driven policy reforms in areas such as pollution control, environmental clearances, and environmental impact assessment (Gill, 2014; Gill, 2016).

The NGT's effectiveness has been significant in some respects but limited in others. The Tribunal has disposed of thousands of cases and issued numerous orders for environmental protection, demonstrating its capacity to deliver accessible and expedited environmental justice (Gill, 2016). However, challenges persist, including inadequate enforcement of NGT orders, resource constraints, jurisdictional limitations, and tensions with other institutions (SAKTHI & ARTHIYA, 2026; Gill, 2016).

The NGT's relationship with the Supreme Court and High Courts has been complex, with questions about appellate jurisdiction, concurrent jurisdiction, and the appropriate division of environmental cases between the NGT and traditional courts (Gill, 2016; Amirante, 2012). The Supreme Court retains jurisdiction over environmental cases under Article 32 (writ jurisdiction), and High Courts retain jurisdiction under Article 226, creating potential for jurisdictional conflicts and forum shopping (Gill, 2016).

The NGT has faced institutional challenges, including vacancies among judicial and expert members, inadequate infrastructure and resources, and political pressures that have sometimes constrained its independence (SAKTHI & ARTHIYA, 2026; Gill, 2016). Recent amendments to the NGT Act have raised concerns about a potential weakening of the Tribunal's powers and independence (SAKTHI & ARTHIYA, 2026).

Despite these challenges, the NGT is a significant institutional innovation that has expanded access to environmental justice and established India as a leader in specialised environmental adjudication (Gill, 2014; Gill, 2016). The Tribunal's integration of judicial and technical expertise, application of international environmental principles, and expedited procedures provide a model for environmental courts, influencing other jurisdictions (Gill, 2016; Amirante, 2012).

8. Critical Analysis: Gaps, Limitations, and Enforcement Challenges

Despite the sophisticated constitutional framework and progressive judicial activism that have characterised Indian environmental jurisprudence, significant gaps, limitations, and enforcement challenges persist, creating a substantial disconnect between constitutional promises and lived environmental realities (SAKTHI & ARTHIYA, 2026). Critical analysis reveals that although India has established impressive legal and constitutional protections for environmental health rights, translating these protections into tangible environmental improvements remains a formidable challenge (Kumar & Kajal, 2026; SAKTHI & ARTHIYA, 2026; Vito et al., 2018).

A fundamental challenge is the persistent gap between judicial declarations and implementation on the ground. Despite numerous landmark judgments that establish environmental rights and issue detailed directives for environmental protection, these rulings have not been fully implemented due to inadequate enforcement mechanisms, bureaucratic inertia, resource constraints, and lack of political will (SAKTHI & ARTHIYA, 2026). This gap between "right to reality" reflects systemic failures in environmental governance that undermine the effectiveness of constitutional protections (SAKTHI & ARTHIYA, 2026).

Institutional fragmentation and coordination failures pose another critical challenge. Environmental governance in India involves multiple institutions at the central, state, and local levels, including pollution control boards, environmental ministries, forest departments, municipal authorities, and specialised bodies (Kumar & Kajal, 2026; Vito et al., 2018; Mandal & Rao, 2007). This institutional complexity creates coordination challenges, jurisdictional conflicts, and accountability gaps that impede effective environmental protection (Kumar & Kajal, 2026; Vito et al., 2018; Mandal & Rao, 2007).

The tension between developmental imperatives and environmental protection remains a defining challenge for Indian environmental governance. India faces the dual challenge of pursuing economic development to address poverty and improve living standards while protecting environmental quality and public health (Singh & Rai, 2024; Vito et al., 2018). This tension is evident in debates over environmental clearances for development projects, where pressures to prioritise economic growth sometimes override environmental concerns (Singh & Rai, 2024).

Enforcement capacity and resources remain persistent constraints on environmental protection. Pollution control boards and environmental agencies often lack adequate staff, technical capacity, monitoring equipment, and financial resources to enforce environmental laws and regulations effectively (SAKTHI & ARTHIYA, 2026; Vito et al., 2018). This enforcement deficit enables continued violations of environmental standards and undermines the effectiveness of legal protections (SAKTHI & ARTHIYA, 2026).

The reactive rather than preventive approach to environmental governance is another limitation. Much environmental litigation and policy intervention occurs in response to environmental crises rather than through proactive prevention (Kumar & Kajal, 2026; Vito et al., 2018). This reactive approach means that environmental protection often comes too late to prevent serious harm, and that environmental policy is driven by crisis management rather than by long-term planning (Kumar & Kajal, 2026; Vito et al., 2018).

Scientific and technical capacity constraints affect both environmental regulation and adjudication. Environmental decision-making requires sophisticated scientific assessment of pollution levels, health impacts, ecological effects, and technological solutions (Gill, 2016). However, regulatory agencies and courts often lack adequate technical expertise, and environmental impact assessments are sometimes inadequate or compromised (Gill, 2016).

The limitations of court-led environmental governance have become increasingly apparent. While judicial activism has driven important environmental reforms, courts face inherent limitations in environmental policymaking, including a lack of technical expertise, limited capacity for ongoing monitoring and enforcement, and concerns about democratic accountability (Singh & Rai, 2024; Dam & Tewary, 2005). The debate over "polluting the constitution" through excessive judicial activism reflects concerns that court-led environmental governance may undermine the separation of powers and democratic governance (Dam & Tewary, 2005).

Public participation and environmental democracy remain underdeveloped in many contexts. Although PIL has expanded access to justice, broader public participation in environmental decision-making, including environmental impact assessment processes, environmental clearances, and policy formulation, remains limited (Vito et al., 2018; Gill, 2012). Strengthening environmental democracy requires not only access to courts but also meaningful public participation in environmental governance (Gill, 2012).

Climate change is an emerging challenge that existing constitutional and legal frameworks have only begun to address. While courts have recognised climate change as an environmental and human rights issue, comprehensive legal and policy frameworks for climate action remain underdeveloped (Patil, 2025; Gupta & Srivastava, 2026; V, 2026). Addressing climate change requires integrating climate considerations into constitutional environmental rights frameworks and developing comprehensive climate governance mechanisms (Patil, 2025; Gupta & Srivastava, 2026).

The persistence of severe environmental crises despite constitutional protections underscores the limitations of legal frameworks alone. Delhi continues to face catastrophic air pollution, rivers remain severely polluted, industrial contamination persists, and waste management remains inadequate in many areas (Kumar & Kajal, 2026; Vito et al., 2018). These ongoing environmental challenges show that constitutional rights and judicial activism, while necessary, are insufficient without comprehensive institutional reforms, adequate resources, political commitment, and societal transformation (Kumar & Kajal, 2026; SAKTHI & ARTHIYA, 2026; Vito et al., 2018).

9. International Dimensions and Comparative Perspectives

Indian environmental constitutionalism has been significantly influenced by international environmental law and, in turn, has contributed to global environmental jurisprudence. The interaction between domestic constitutional law and international environmental norms reflects India's engagement with the global environmental movement and demonstrates the transnational character of environmental rights (Kiss & Shelton, 2006; Bratspies, 2015; Patel, 2015).

9.1 Stockholm Declaration and Rio Declaration

The 1972 Stockholm Declaration on the Human Environment marks a foundational moment in international environmental law, establishing Principle 1, which affirms that "Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being" (Kiss & Shelton, 2006; Bratspies, 2015). India's participation in the Stockholm Conference directly influenced the 42nd Constitutional Amendment of 1976, which introduced Articles 48A and 51A(g) and established constitutional mandates for environmental protection (Singh, 2023; -, 2022).

The 1992 Rio Declaration on Environment and Development further developed international environmental principles, including the precautionary principle (Principle 15) and the polluter pays principle (Principle 16) (Kiss & Shelton, 2006; Gill, 2014). The Indian Supreme Court has explicitly incorporated these Rio principles into domestic constitutional law, holding in Vellore Citizens Welfare Forum that they form part of the law of the land (Nath, 2026; Müller, 2023).

The integration of the Stockholm and Rio principles into Indian constitutional jurisprudence demonstrates the Court's engagement with international environmental law and its willingness to interpret constitutional provisions in light of evolving international norms (Kiss & Shelton, 2006; Gill, 2014; Patel, 2015). This approach reflects recognition that environmental challenges are transnational and that domestic constitutional law must be informed by global environmental principles (Kiss & Shelton, 2006; Patel, 2015).

9.2 UN Special Rapporteur on Human Rights and Environment

The establishment of the UN Special Rapporteur on Human Rights and the Environment (originally titled Special Rapporteur on Human Rights and Hazardous Substances and Wastes) reflects growing international recognition of the link between environmental protection and human rights (Bratspies, 2015; Umukoro & Ituru, 2024). The Special Rapporteur's work has documented the human rights dimensions of environmental degradation and has contributed to the development of international norms that recognise environmental rights as human rights (Bratspies, 2015; Umukoro & Ituru, 2024).

Indian environmental jurisprudence has contributed to the global discourse on environmental human rights through its progressive constitutional interpretation, which recognises environmental rights as fundamental rights (Bratspies, 2015; Abdulkadir, 2023). The Indian experience demonstrates that constitutional recognition of environmental rights can drive environmental protection and provide remedies for environmental harm, offering lessons for other jurisdictions (Bratspies, 2015; Abdulkadir, 2023).

9.3 UN Resolution on Right to Clean, Healthy and Sustainable Environment

The UN General Assembly's 2022 recognition of the right to a clean, healthy, and sustainable environment as a human right marks a landmark development in international environmental law (Solanki & Bishnoi, 2026; Bratspies, 2015; Umukoro & Ituru, 2024). This resolution builds on decades of advocacy and jurisprudential development, including the Indian Supreme Court's recognition of environmental rights under Article 21.

The UN resolution recognises that environmental quality is essential to human rights and human dignity and that states have obligations to protect environmental rights (Solanki & Bishnoi, 2026; Bratspies, 2015; Umukoro & Ituru, 2024). Although the resolution is not legally binding, it marks an important normative development that may influence domestic constitutional interpretation and international environmental law (Solanki & Bishnoi, 2026; Bratspies, 2015).

Indian constitutional jurisprudence has anticipated and contributed to the global recognition of environmental rights. The Supreme Court's interpretation of Article 21 to encompass environmental rights predates the UN resolution by decades and demonstrates that constitutional interpretation can drive recognition of emerging human rights (Solanki & Bishnoi, 2026; Bratspies, 2015). The Indian experience offers lessons for implementing the right to a clean, healthy, and sustainable environment, highlighting both the potential of constitutional recognition and the challenges of enforcement and implementation (Solanki & Bishnoi, 2026; SAKTHI & ARTHIYA, 2026; Bratspies, 2015).

Comparative analysis reveals that India's constitutional approach to environmental rights is distinctive in several respects. Unlike some jurisdictions with explicit constitutional provisions for environmental rights, India's environmental rights framework is primarily judge-made, derived through expansive interpretation of the right to life (Boyd, 2011). This approach demonstrates the potential for constitutional interpretation to recognise unenumerated rights, but it also raises questions about democratic legitimacy and the appropriate role of courts (Boyd, 2011).

India's PIL mechanism and the NGT are institutional innovations that have influenced environmental justice mechanisms in other jurisdictions (Gill, 2016; Amirante, 2012). The NGT's integration of judicial and technical expertise, the relaxation of standing requirements in PIL, and the application of international environmental principles in domestic constitutional law offer models for other countries seeking to strengthen environmental protection (Gill, 2016; Amirante, 2012).

However, comparative analysis also shows that India faces challenges common to many developing countries, including tensions between environmental protection and economic development, constraints on enforcement capacity, and institutional coordination challenges (Vito et al., 2018; Mandal & Rao, 2007; Orubebe, 2018). Learning from international experiences in addressing these challenges can inform reforms to strengthen Indian environmental governance (Vito et al., 2018; Orubebe, 2018).

10. Conclusion and Recommendations

The evolution of Indian constitutional jurisprudence on the right to a clean and healthy environment, as an integral component of the right to health, marks a remarkable achievement in constitutional interpretation and environmental law. Through progressive judicial activism spanning four decades, the Indian Supreme Court has transformed Article 21's guarantee of life and personal liberty into a comprehensive framework that encompasses environmental health rights, integrates international environmental principles into domestic constitutional law, and establishes India as a global leader in environmental constitutionalism (Sonawale, 2025; Suragihalli, 2026; Mishra & Singh, 2026).

The constitutional framework, established through landmark decisions such as Maneka Gandhi, Subhash Kumar, Vellore Citizens Welfare Forum, the M.C. Mehta series, T.N. Godavarman Thirumulpad, Indian Council for Enviro-Legal Action, and the Endosulfan case, demonstrates the judiciary's capacity to respond to emerging environmental challenges through creative constitutional interpretation (Gurugopinath & Venugopal, 2024; Singh, 2026; Venkateswarlu, 2022; Khobragade, 2026; Nath, 2026). The recognition that the right to life necessarily includes the right to breathe clean air, drink pure

water, and live in an environment free from pollution reflects a sophisticated understanding of the inextricable link between environmental quality and human health (Mathew & Balu, 2022; Dave, 2026; Chaturvedi & RUMA, 2026).

The integration of the precautionary and polluter pays principles into Indian constitutional law reflects engagement with international environmental norms and a willingness to adapt global principles to domestic constitutional frameworks (Gill, 2014; Nath, 2026). The PIL mechanism has transformed access to environmental justice, enabling citizens and civil society organisations to challenge environmental violations and drive policy reforms (Mohammad & Bano, 2019; Gill, 2012). The establishment of the National Green Tribunal is an important institutional innovation, creating specialised capacity for environmental adjudication (Gill, 2014; Gill, 2016).

However, critical analysis reveals substantial gaps between constitutional promises and environmental realities. Despite sophisticated legal frameworks and progressive judicial decisions, India continues to face severe environmental crises, including catastrophic air pollution, water contamination, industrial pollution, and inadequate waste management (Kumar & Kajal, 2026; SAKTHI & ARTHIYA, 2026; Vito et al., 2018). Persistent challenges include inadequate enforcement mechanisms, institutional fragmentation, resource constraints, tensions between development and the environment, and the limitations of court-led environmental governance (Singh & Rai, 2024; SAKTHI & ARTHIYA, 2026).

The gap between "right to reality" reflects systemic failures in environmental governance that cannot be addressed by constitutional interpretation and judicial activism alone (SAKTHI & ARTHIYA, 2026). Translating constitutional environmental rights into tangible environmental improvements requires comprehensive institutional reforms, adequate resources, political commitment, and societal transformation (SAKTHI & ARTHIYA, 2026; Vito et al., 2018).

Based on this critical analysis, several recommendations emerge for strengthening the constitutional architecture of environmental health rights in India:

Institutional Reforms: Strengthen environmental governance institutions by ensuring adequate staffing, technical capacity, resources, and independence. Improve coordination among central, state, and local environmental agencies to address institutional fragmentation. Establish clear accountability mechanisms for environmental protection (SAKTHI & ARTHIYA, 2026; Vito et al., 2018).

Enforcement Mechanisms: Develop robust enforcement mechanisms for environmental laws and judicial orders, including penalties for non-compliance, monitoring systems, and dedicated enforcement capacity. Address the persistent gap between judicial declarations and ground-level implementation through systematic enforcement strategies (SAKTHI & ARTHIYA, 2026).

Preventive Approaches: Shift from reactive crisis management to proactive prevention through comprehensive environmental planning, stringent environmental impact assessments, and precautionary decision-making in environmental matters. Integrate environmental considerations into development planning from the outset (Kumar & Kajal, 2026; Vito et al., 2018).

Scientific and Technical Capacity: Strengthen scientific and technical capacity in environmental agencies, courts, and the NGT through training, recruiting technical experts, and investing in monitoring and assessment infrastructure. Ensure that environmental decision-making is informed by sound science (Gill, 2016).

Public Participation: Enhance environmental democracy by ensuring meaningful public participation in environmental decision-making, including environmental impact assessments, clearance processes, and policy formulation. Strengthen transparency and access to environmental information (Gill, 2012).

Climate Integration: Develop comprehensive legal and policy frameworks for climate action, integrating climate considerations into constitutional environmental rights frameworks. Recognise climate change as a fundamental threat to environmental health rights, requiring urgent action (Patil, 2025; Gupta & Srivastava, 2026; V, 2026).

Resource Allocation: Ensure sufficient financial resources for environmental protection, including pollution-control infrastructure, environmental monitoring, enforcement capacity, and environmental restoration. Recognise that environmental protection requires sustained investment (SAKTHI & ARTHIYA, 2026; Vito et al., 2018).

Legislative Action: Complement judicial activism with comprehensive legislative action to establish clear environmental standards, enforcement mechanisms, and institutional frameworks. Address the limitations of court-led environmental governance through democratic legislative processes (Singh & Rai, 2024).

International Engagement: Continue engagement with international environmental law and draw on comparative experiences in environmental governance. Implement the UN-recognized right to a clean, healthy, and sustainable environment through domestic constitutional and legal frameworks (Solanki & Bishnoi, 2026; Bratspies, 2015).

Holistic Approach: Recognise that environmental health rights require holistic approaches that integrate environmental protection, public health, social justice, and sustainable development. Address the social determinants of environmental health, including poverty, inequality, and marginalisation (Mathew & Balu, 2022; Padgaonkar, 2026; Chaturvedi & RUMA, 2026).

The right to a clean and healthy environment, as an integral component of the right to health, is a constitutional imperative that demands sustained commitment from all branches of government, civil society, and citizens. While Indian constitutional jurisprudence has established a sophisticated theoretical framework recognizing environmental health as fundamental, realizing this constitutional vision requires moving beyond legal declarations to

comprehensive action that addresses the systemic challenges perpetuating environmental degradation and health impacts (SAKTHI & ARTHIYA, 2026; Gunjan, 2026).

The Indian experience offers valuable lessons for global environmental constitutionalism, demonstrating both the transformative potential of constitutional recognition of environmental rights and the persistent challenges in implementation and enforcement (Solanki & Bishnoi, 2026; Bratspies, 2015; Abdulkadir, 2023). As environmental challenges intensify with climate change, biodiversity loss, and pollution, the constitutional commitment to environmental health rights becomes increasingly urgent. Fulfilling this constitutional promise requires not merely judicial activism but also comprehensive societal transformation towards environmental sustainability, public health protection, and ecological justice (Patil, 2025; Suragihalli, 2026; Gupta & Srivastava, 2026).

The right to a clean and healthy environment, recognised as integral to the right to life and health under Article 21, is a constitutional commitment that must guide India's environmental future, ensuring that all citizens can enjoy the fundamental right to live with dignity in an environment that sustains health, well-being, and life (Mathew & Balu, 2022; Chaturvedi & RUMA, 2026; Gunjan, 2026).

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