



Guardians of the Environment: Judiciary's Actions for Environmental Justice in India

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Abstract

This review paper outlines the significant contribution of judiciary in environmental conservation by analyzing constitutional provisions, environmental statutes, recorded judicial activities, and some notable judicial principles. The Indian Constitution has laid a strong foundation for the judiciary's involvement in the explicit recognition of environmental rights and obligations over the same. Significant judicial decisions such as *M.C. Mehta vs. Union of India* and *Vellore Citizens Welfare Forum vs. Union of India*, as well as other judicial techniques surrounding the disputes, have set precedent over environmental litigation and guided the formulation of judicial principles like the Polluter Pays and the Precautionary Principle. The paper underscores the judiciary's positive and proactive efforts towards mitigating environmental problems, supporting sustainable development, and safeguarding the interest of the current and future generations. Given their role as the protectors of justice and defenders of the environment, the Indian judiciary has remained instrumental in determining the country's environmental character and overall commitment towards environmental custodianship and ecological sustainability.

1. Introduction

The term "environment" refers to the interactions between people (Tilbury and Henderson, 2003), other living things, and the three fundamental elements of air, water, and land. The extensive network of connections between living things and their surroundings, both living and nonliving, is a product of ecology (Jain *et al.*, 2019). Environmental protection is a vital necessity. The resources are being conserved by deliberate efforts. India is facing the environmental issues similar to the global community (Agarwal, 2005). In India, it is not uncommon to just discard industrial wastes without giving our ecosystems a second consideration (Lohchab and Saini, 2018; Jain *et al.*, 2019). The environment of one nation affects other nations also (Rosencranz *et al.*, 1991). This evolving environmental crisis compelled the judiciary to step beyond traditional legal interpretation and assume a proactive role as a guardian of environmental justice. Over time, the Indian courts have transitioned from being mere arbiters of disputes to becoming instruments of environmental governance. This transformation forms the central narrative of this paper- how

judicial intervention filled legislative and executive gaps to secure the constitutional right to a healthy environment.

In order to attain a sustainably developed society, it is imperative to establish a robust environmental legislation, jurisprudence and enforcement framework for both environment and energy (power) regulations. Environmental laws and regulations, alongside their effective implementation and enforcement, play a crucial role in advancing sustainable development goals. These legal measures safeguard natural resources and ecosystem services, promote the health and safety of workers and communities, foster corporate sustainability, create markets for environmental goods and services, generate sustainable employment opportunities, and drive technological innovation (Markowitz and Gerardu, 2012). Environmental jurisprudence supports a country to meet certain sustainable development goals by protecting the planet and promoting sustainable development. These include but are not limited to SDG 13: 'Climate Action,' SDG 14: 'Life Below Water,' and SDG 15: 'Life on Land,' which concerns combating climate change, protecting marine and terrestrial life, and combating biodiversity loss, respectively. Apart from that, environmental laws and policies coincide with the targets of other SDGs such as SDG 6: 'Clean Water and Sanitation,' for instance, by elaborating on water quality and efforts that need to be taken to conserve water; SDG 7: 'Affordable and Clean Energy,' where laws explain the transition to renewable sources of energy and the ones that describe the harmful use of fossil fuel; and SDG 11: 'Sustainable Cities and Communities,' where the policy works prevent pollution, garbage management, promote sustainable urbanization, among other items. Furthermore, they support SDG 12: 'Responsible Consumption and Production' by promoting sustainable resource use and waste reduction practices.

India has a thorough environmental framework that includes a plethora of environmental laws, regulatory tools, and institutional frameworks to execute and enforce environmental policies. However, many times the enforcement of these laws and regulatory tools is not implemented properly (Gupta, 2011). India is a democratic nation, but due to significant population problem, unmannered urbanization and flexible environmental laws, solving significant cases takes a lot of time in judiciary. Additionally, the need for a robust legal framework to address environmental issues has become increasingly urgent as India grapples with the consequences of rapid industrialization and urban expansion. Strengthening enforcement mechanisms and enhancing public awareness are critical steps towards ensuring sustainable development and preserving the country's natural resources for succeeding generations. The Indian Constitution offers specific provisions that direct the state, its citizens, and the legal justice system towards attaining a clean and pollution-free environment. The judiciary's expanding concern for the environment did not emerge in isolation. It was grounded in the constitutional framework that progressively defined environmental duties and rights. Understanding these provisions provides the foundation for evaluating how judicial activism later operationalized these ideals into enforceable justice.

2. Provisions for Environment Protection in Indian Constitution

The declarations of Stockholm (1972) and Rio de Janeiro (1992) are viewed as milestones in the history of environmental laws globally. These two declarations have a significant impact on both the international and domestic levels (Dash, 2021). In 1976, the Indian Parliament amended constitution to add Articles 48A and 51A under the Directive Principles of State Policy and the

Fundamental Duties, respectively; requiring both the government and citizens to conserve, protect, and improve the environment. This obligation extends to all generations, requiring governments to develop and conserve natural resources in the best possible way. A surge of environmental litigation came from PIL under Articles 32 and 226 of the Indian Constitution. Understanding the constitutional provisions pertaining to environmental preservation is essential for increasing public engagement, promoting environmental sensibility and education, and raising public knowledge of the importance of preserving the environment and ecology.

While the legislative bodies laid down numerous environmental laws, the judiciary gave these statutes practical meaning and moral force. The courts interpreted these acts not merely as regulatory instruments but as expressions of the citizens' fundamental right to life under Article 21, thereby linking environmental protection directly with human dignity and social equity.

3. Environmental Laws

Environmental laws play a crucial role within any governing body, constituting a comprehensive framework of regulations concerning various environmental aspects such as air and water quality. In India, these laws are guided by ecological law principles and primarily focus on managing specific natural resources like fisheries, forests, and minerals. They serve as a direct embodiment of the constitutional vision. After the 1972 Stockholm, Sweden, UN Conference on the Human Environment, the formal framework for environmental protection started to take shape. Subsequently, the establishment of the National Council for Environmental Policy and Planning within the Department of Science and Technology in 1972 aimed to oversee environmental concerns and issues, eventually evolving into the Ministry of Environment, Forests and Climate Change.

3.1 Wild Life (Protection Act), 1972: Wild Life (Protection Act), 1972 was enacted so that the wildlife which is an intrinsic part of the ecosystem can be protected and guarded against extinction. As per this Act every State has to constitute a Wild Life Advisory Board. Certain areas are to be declared as sanctuaries and National Parks. This Act is basically to safeguard and preserve animals, plants and birds which live in forests. Hunting of the wild animals is permitted only when such animals become dangerous to the human beings or it becomes diseased beyond recovery. Schedule-I and part of Schedule-II of this act offer absolute protection to certain species, with offenses against them carrying the highest penalties. Additionally, species listed in Schedule -III and Schedule- IV are also protected, albeit with comparatively lower penalties for offenses. Animals categorized under Schedule-V, such as fruit bats, common crows, mice and rats are legally designated as vermin and are permitted to be hunted without restriction. Furthermore, plants specified as endemic in Schedule-VI are prohibited from cultivation and planting activities.

3.2 The Water (Prevention and Control of Pollution) Act, 1974: The primary goal of this legislation was to address the issue of water pollution by implementing preventive measures and enforcing control measures. It aimed to preserve or improve the quality of water across an array of water sources. Under the Water Act of 1974, the Central Pollution Control Board (CPCB) and the State Pollution Control Boards (SPCBs) were established as statutory bodies with regulatory authority. This legislation grants SPCBs/PCCs the authority to inspect industrial facilities, including plants and factories, and review their records, registers, and documents. Additionally,

they are empowered to collect samples of industrial effluents for analysis. The CPCB and SPCBs are responsible for setting and implementing effluent standards for industries that release pollutants into water bodies. CPCB extends its responsibilities to union territories, formulating policies to prevent water pollution and coordinating with various SPCBs. SPCBs regulate sewage and industrial effluent discharge by granting or rejecting consent for discharge.

3.3 Air (Prevention and Control of Pollution) Act, 1981: This act was crafted with the objective of mitigating air pollution through prevention, control, and abatement measures. It primarily targeted industrial and automobile-related sources of pollution. This legislation mandated the setting up of regulatory bodies at both central and state levels to effectively enforce its provisions. One of the core mandates of the Act was to curb emissions of various pollutants from sources such as internal combustion engines, vehicles, industrial operations, and power plants. Specifically, pollutants such as particulate matter, lead, CO, SO₂, NO₂, volatile organic compounds, and other toxic substances were not permitted to exceed predefined limits.

3.4 Environment (Protection) Act, 1986: Upon a brief examination of its Preamble, it becomes evident that the objectives of this act are threefold: firstly, the protection of the environment; secondly, the enhancement of the environment; and thirdly, the prevention of hazards to all types of living creatures, and property. This legislation serves as a comprehensive framework, encompassing a wide range of issues. It addresses concerns ranging from the disposal of radioactive substances to the regulation of plastic bag usage.

Enacted under Article 253, which pertains to legislation for implementing international agreements, this act was prompted by the tragic Bhopal gas disaster in December 1984. Its aim was to fulfil the commitments made at the UN Conference on the Human Environment in 1972, specifically reflecting the principles outlined in the Stockholm Declaration. Additionally, the Ministry of Environment, Forest and Climate Change (MoEFCC) notifies eco-sensitive zones or ecologically fragile areas under the Environmental Protection Act (EPA) of 1986, establishing 10-kilometer buffer zones around protected areas. The EPA of 1986 establishes several statutory bodies, including the Genetic Engineering Appraisal Committee and the National Coastal Zone Management Authority (which was later transformed into the National Ganga Council under the Ministry of Jal Shakti).

3.5 The Energy Conservation Act, 2001: This act sought to encourage energy saving and efficiency. In order to organize and implement energy-efficient policies and initiatives, it creates the Bureau of Energy Efficiency (BEE). Energy audits, energy consumption guidelines, and appliance and equipment labelling regulations are all mandated by the legislation. By offering incentives and enforcing fines for non-compliance, it also promotes energy saving measures in businesses and industrial buildings. The act's overall goals are to lessen environmental damage, encourage sustainable growth, and reduce energy usage.

3.6 Biological Diversity Act, 2002: It was put into action to follow the Convention on Biological Diversity (CBD) and Nagoya Protocol and prevent biopiracy. Its main goals are to safeguard biological diversity and support local farmers. This is done through a three-level system involving central and state boards, along with local committees. It also established the National Biodiversity

Authority (NBA), State Biodiversity Boards (SBBs), and Biodiversity Management Committees (BMCs).

3.7. Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA): Administered under the Ministry of Tribal Affairs, the Act aims to ensure sustainable use, biodiversity conservation, and ecological balance among these communities while rectifying historical injustices. It identifies four types of rights: Title Rights for land ownership, Use Rights for resource extraction, Relief and Development Rights for rehabilitation and basic amenities, and Forest Management Rights for conservation and management of community forest resources.

3.8 The National Green Tribunal (NGT) Act, 2010: The National Green Tribunal (NGT) Act of 2010 was established in alignment with the principles outlined at the Rio Summit in 1992. Its primary objective is to provide legal and administrative remedies for individuals affected by pollution and other forms of harm to the environment. Aligned with Article 21 of the Constitution, which enshrines the right to a healthy environment for citizens, the NGT is mandated to resolve cases within six months of their appeals. It holds original jurisdiction over matters concerning significant environmental issues. The NGT's purview extends to civil cases under seven environmental acts, including the Water (Prevention and Control of Pollution) Act of 1974, the Air (Prevention and Control of Pollution) Act of 1977, and the Environmental Protection Act of 1986. However, it does not have jurisdiction over certain acts such as the Wildlife Protection Act of 1972 and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act of 2006. Decisions made by the NGT can be contested in High Courts and the Supreme Court, ensuring a system of checks and balances within the legal framework pertaining to environmental matters.

3.9 Compensatory Afforestation Fund Act, 2016: In India, the Compensatory Afforestation Fund Act (CAFA) in 2016 was established to manage the amount paid as compensation for reforestation and related activities. It creates a National Compensatory Afforestation Fund and State Compensatory Afforestation Funds, mandating transparency and accountability in the spending of these funds. Since 2011, through the CAFA, funds have been collected from entities diverting forest land for non-forest uses and used for reforestation and biodiversity conservation projects. The Act further lays down the need to formulate national and state management authorities to monitor fund disbursements as well as ecological restoration activities. CAFA intends to provide an operative framework for a sustainable forest management system and lessen the negative effects of diversion of forest land. However, there are problems like insufficient monitoring systems, and displacement of native people. Monoculture plantations and alien species also pose possible negative implications for biodiversity and ecosystem health. The delayed disbursal of the fund has also been a significant impediment to the timely execution of afforestation projects, as such delays have affected the efficacy of CAFA to address deforestation issues in India. The real evaluation of the judiciary's contribution lies not only in recounting cases but in understanding the evolution of judicial thought. Initially, the courts gradually adopted a purposive approach, expanding the scope of Article 21 and integrating global environmental principles. This section therefore connects landmark cases to demonstrate a clear progression - from reactive adjudication to proactive environmental stewardship.

4. Role of Judiciary in Environmental Protection

It is clear that no other constitutional court in the world has ever created an expansive and groundbreaking environmental jurisprudence like that of the higher judiciary of India. The High Courts have made contributions to this jurisprudence as well. In reality, as a result of its proactive approach to implementing environmental law, the nation's higher judiciary has positioned itself as the exclusive supplier of environmental justice (Parikh, 2017). This has assisted them in creating a niche as a unique institution that advocates for the upholding of human rights within the justice system. They have been mainly effective in transforming how the general public perceives law courts as being more than just forums for conflict settlement.

After that National Green Tribunal was established under NGT Act, 2010 to dispose of the cases related to environment. NGT has jurisdiction over civil nature of environmental offences while Supreme Court decides on the matters of criminal nature. The judgements by NGT can be challenged in the Supreme Court. Let's delve into some landmark decisions by these courts that illustrate their crucial role in safeguarding our environment. Each of the following landmark judgments represents a milestone in the development of environmental jurisprudence. Together, they trace a narrative of judicial awakening - beginning with public health and sanitation concerns and maturing into sophisticated doctrines that balance ecological integrity with developmental needs.

4.1. Municipal Council, Ratlam vs. Vardhichand, AIR (1980) SC 1622: The *Ratlam vs. Vardhichand* case involved a ward in Ratlam Municipality being used as a toilet by impoverished residents, leading to filth and misery. The Magistrate ordered the elimination of the nuisance, which was upheld by the High Court and Supreme Court. The Supreme Court emphasized the responsibility of the Magistrate and ordered the municipal corporation to provide drainage system in a year and stop alcohol plant effluents from entering the streets. In the cases of *Ratlam vs. Vardhichand* and *B.L. Wadhera vs. Union of India*, the Honorable Supreme Court underlined that everyone has a basic right to a clean environment under Article 21. It reinforced the duty of both local authorities and the state to safeguard public health by undertaking all necessary measures. This ruling emphasizes the principles of social justice and imposes a legal obligation on statutory bodies to fulfill their responsibilities towards the community. This judgment directly led to improved sanitation facilities and waste management systems in Ratlam and other municipalities, setting a precedent for local environmental governance in India.

4.2. M.C. Mehta vs. Union of India, AIR 1997 SC 734: This case marked a turning point where the judiciary began to directly link industrial pollution with cultural and ecological heritage, thus broadening the meaning of environmental justice beyond health and sanitation. This case is popularly known as the *Taj Mahal Trapezium Case*, is a significant case in Indian environmental jurisprudence that was brought in 1986 by M.C. Mehta. In the lawsuit, it was claimed that pollution from adjacent industry led to the Taj Mahal's yellowing and degeneration. After the Supreme Court's decision, the Taj Trapezium Zone's pollution levels significantly decreased, allowing the monument to be restored to its previous splendour and white marble. The petitioner argued that acid rain from pollution caused the marble to turn yellow and was bad for the environment as well as for the monument. The Supreme Court's decision has significantly changed Indian environmental legislation, increasing public awareness of the value of environmental protection

and encouraging the adoption of different pollution-reduction strategies. It pushed for sustainable development, making polluters accountable for paying harmed parties, and correcting damaged ecosystem. It acknowledged socio-economic considerations as a crucial element in the destruction of the Taj Mahal. The ruling has several limitations, though, such addressing just 292 of the 510 enterprises responsible for the harm and simply requesting relocation for those unwilling to switch to natural gas. It also ignores pollution caused by brick kilns, bangle manufacturers, glass factories and heavy traffic on the highways in Agra. Following this decision, pollution levels around the Taj Trapezium Zone decreased significantly, industries adopted cleaner fuel technologies, and restoration efforts preserved the Taj Mahal's white marble appearance.

4.3. Rural Litigation and Entitlement Kendra vs. State, 1989 AIR 594 (Dehradun Quarrying Case):

The Dehradun quarrying case revealed how the judiciary evolved from issuing local directives to recognizing the interdependence between ecology, livelihood, and sustainable development. In one instance, this NGO and some locals petitioned the Apex Court to stop mining that was destroying the Mussoorie Hills in Uttrakhand State (then Uttar Pradesh) and hastened soil erosion, resulting in destabilization and subsequent landslides and blocked subsurface water channels. The petitioners argued that the quarries were polluting the environment, causing ecological imbalance, and harming human health. The respondents, including the state and limestone quarry owners, argued that closing the quarries would put them out of business and create unemployment. The court and central government set up committees and working groups to investigate the problem. After receiving reports, directions were issued. The court weighed the environmental disturbance against the need for industrial purposes in the country. The court mandated that lime stone quarries listed in the Bhargav Committee Report be shut down, and dissolved any stay orders allowing mining operations. The court also included provisions for compensating local villagers affected by the quarrying activities. The decision set a precedent for future cases, affirming the principle that sustainable growth and conserving the environment must coexist. The case was also crucial to enhancing sustainable development ideas and helps to embrace the concept of natural resources conservations for the interest of present and future generations. Therefore, the case is essential because it has demonstrated the judiciary's leading role in issues of environmental concern. It sent a warning to industries that the Indian judiciary is ready to take action in preventing environmental degradation caused by them. This ruling resulted in the closure of harmful limestone quarries, the revival of vegetation in the Mussoorie hills, and improved water retention in the region, proving direct ecological restoration.

4.4. Kamal Nath vs. M.C. Mehta, AIR 2000 SC (6) SCC 213: Kamal Nath vs. M.C. Mehta 2000 is a landmark environmental law case in India involving the unauthorized construction of a motel by Span Motels Pvt. Ltd., a firm associated with Kamal Nath, next to the Beas River in Himachal Pradesh. M.C. Mehta, a distinguished environmental lawyer, brought the matter to the Supreme Court of India via a Public Interest Litigation. Interestingly, a newspaper written for the Indian Express in 1996 aided M.C. Mehta's motivation referred to as "Kamal Nath dares the mighty Beas to keep his dreams afloat." The Indian Express, the newspaper article made Span Motels Pvt. Ltd. prominent as having caused considerable ecological harm as a result of constructing and running the motel. The unauthorized activities led to the destruction of the river's ecosystem and affected the surrounding forest. M.C. Mehta drew the Supreme Court's attention to the video to restore the environment. The Supreme Court determined that environmental destruction is fundamentally a civil infraction against the whole society. The Supreme Court of India implemented the Public

Trust Doctrine of natural resource possession, asserting that 'no person has the right to grab and appropriate it to his use.' Regarding the issue of pollution, the court emphasized Article 48A and 51A of the Indian Constitution and said, in the language of Article 21 of the Indian Constitution, that, according to Justice as "life" as defined in the Bihar case is not only animal existence. but a livelihood worth living. According to Article 51A, it stands equated with living with health, if the problem of pollution is remaining unsolved, then it will fudge out and destroy basic visions of the Indian Constitution. The judgment ensured the restoration of the Beas River banks and set a long-term precedent preventing encroachment on riverbeds, improving local aquatic biodiversity. The Kamal Nath judgment illustrates how the judiciary extended environmental protection from industrial spaces to natural ecosystems, reinforcing the concept that environmental rights are inseparable from human rights.

4.5. M.C. Mehta vs. Union of India, AIR 1987 SC 1086: In the case known as the "Shriram Food and Fertilizer Case," the Supreme Court rendered a decision about the coverability of exemplary damages in instances where harm results from actions deemed hazardous or inherently risky, as was the situation with the defendant in this case. The Supreme Court of India established the idea of "Absolute Liability" in response to the Bhopal gas leak tragedy, which occurred on December 4 and 6, 1985, at Shri Ram Foods and Fertilizer Industries in Delhi. The court decreed that the plant could continue operations under stringent conditions to prevent leaks, explosions, and pollution. Moreover, it established the principle of "absolute liability" for manufacturers of hazardous chemicals to compensate victims, marking the first instance of compensation being awarded to victims. As part of the ruling, Shri Ram Foods was directed to deposit Rs. 20 lakhs (2 million INR) as security for compensation payments and create a green belt spanning 1–5 kilometers. The case triggered the establishment of environmental courts and strict safety regulations for hazardous industries, significantly reducing industrial accidents and toxic releases. Additionally, In order to handle matters related to the environment, the court further directed the Central Government to set up an Environmental Court that would consist of two ecological scientific specialists and a judge. Subsequently, the Indian government enacted the National Environment Tribunal Act in 1995 to address cases related to environmental pollution, spurred by this decision and the preceding Bhopal gas disaster, emphasizing the urgent need for robust environmental protection measures.

4.6. A.P. Pollution Control Board vs. Prof. M.V. Nayudu (Retd.) & Ors [AIR 1999 SC 812]: The appellant was the Andhra Pradesh Pollution Control Board, and the main problem was the construction of a chemical factory by K.V. Chemicals Ltd. in the vicinity of Himayat Sagar and the Osman Sagar reservoirs, important drinking water sources of Hyderabad. All the respondents, comprising Prof. M.V. Nayudu, a retired professor, were against the factories. They initiated a Public Interest Litigation in which they blatantly claimed that the environmentally unstable and hazardous factory near two major reservoirs and one of the primary sources of drinking water was a threat to the environment and human life due to potential spillage. That is, from their perspective, the poisonous factory could spill around and contaminate the water of the locality. Initially, the Andhra Pradesh Pollution Control Board (APPCB) allowed the company to establish a plant near the reservoirs, but after a scandal, the respondents contested their decision. Thus, the Supreme Court of India had to decide whether the permissions provided were valid and sufficient regulations existed to prevent the possible pollution. Indeed, the Supreme Court addressed the issue of pollution prevention with a high degree of seriousness and confirmed the necessity of

strong measures to prevent human damage to the environment. The Court included the Presumption Principle that states that “full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation.” The Supreme Court passed a verdict in favour of the respondents and ordered the APPCB to reassess their preferences. The Supreme Court permitted the chemical factory to operate under strict rules of the strengthened regulation of the production lines. The Court introduced a new conception of the terms and appointed the authorities under Section 3(3) of the Environmental Protection Act, 1986. The Court suggested that when there is a notion of potential major environmental damage or irreversible mutations, the one who manages the work shall testify. This judgement is important because it reiterated the need for the application of the precautionary principle in environmental law and showed that the judiciary can guarantee environmental standards. The implementation of the precautionary principle strengthened industrial siting regulations, protecting Hyderabad's drinking water sources from contamination. It further supported the perception that environmental protection should not be treated as negotiable when it comes to industrial development, given the risks to public health and other essential resources.

4.7. M.C. Mehta vs. Union of India- Ganga Pollution Case [AIR 1988 SC 1037;(1987) 4 SCC 463]: To stop leather tanneries from dumping industrial and household waste and effluents into the Ganga River, M.C. Mehta filed a writ petition in 1985. In order to successfully battle water pollution, the petitioner pleaded with the Supreme Court to forbid the respondents from releasing effluents into the river until they had established treatment plants that could handle toxic effluents. Emphasizing the significance of the Water (Prevention and Control of Pollution) Act of 1974, designed to curb water pollution and uphold water quality standards, the court underscored the critical need for adherence to its provisions. The leather industry, known for its substantial water consumption, indiscriminately releases most of its water usage as untreated wastewater, laden with toxic substances. These pollutants not only deplete the oxygen levels in the river water, leading to the demise of aquatic life, but also contribute to the foul odor emanating from the river. Despite the existence of regulatory frameworks such as the Water Act and the Environment Protection Act, the State Board failed to take effective measures to curb the discharge of effluents into the River Ganga. In 1987, the court issued a landmark ruling ordering the closure of polluting tanneries in the vicinity of Kanpur. These tanneries were mandated to establish primary treatment plants at the very least, and secondary treatment plants where feasible, as a minimum requirement to address the environmental degradation caused by their operations. This led to the closure of several polluting tanneries and initiation of the Ganga Action Plan, improving water quality in key river stretches. Court further ordered the central government to instruct all Indian educational institutions to require students to learn about the preservation and enhancement of the natural environment during the first ten classes, for no less than one hour each week. For the aforementioned purposes, the federal government will order textbooks and provide them without charge to educational institutions. Children should be taught the importance of keeping their homes clean, beginning with the interior and exterior as well as the streets around. A tidy atmosphere supports physical and mental wellbeing. For the goal of teaching educators who teach this issue, short-term courses should also be initiated.

4.8. Indian Council for Enviro-Legal Action vs. Union of India, (2011) 12 SCC 768: The Indian Council for Enviro-Legal Action initiated legal proceedings against Hindustan Agro Chemicals Ltd. (HACL) concerning pollution stemming from chemical industrial operations in Bichhri

village, Udaipur District, Rajasthan. These plants operated without proper permits, resulting in significant environmental harm. Despite court orders issued to regulate and contain sludge, these directives were disregarded. In 1996, the court intervened decisively, ordering the closure of the factories and the recovery of ecological restoration expenses from the responsible industries. However, these polluters employed legal maneuvers to delay enforcement for a staggering 15 years. Finally, in a landmark decision, the Supreme Court imposed a hefty fine of Rs 38.385 crores (10.834 million US dollars) on HACL for the remediation of more than 350 hectares of land affected by pollution. Additionally, the court applied the Polluter Pays Principle, mandating that those responsible for environmental degradation bear the costs of remediation, emphasizing accountability for the damage inflicted upon both humans and the environment. The enforcement of the Polluter Pays Principle compelled industries to rehabilitate polluted sites and established financial accountability for environmental restoration.

4.9. Vellore Citizen's Welfare Forum vs. Union of India, AIR 1996 SC 2715: The Tamil Nadu Tanneries Case originated from a petition filed by the Vellore Citizens Welfare Forum against tanneries and other industries situated in Tamil Nadu, which were polluting the River Palar, Tamil Nadu. The petitioner contended that the pollution caused by these industries had contaminated both surface and sub-soil water, rendering it unsuitable for cultivation. Upon examining the interplay between the environment and industrial progress, the Supreme Court concluded that tanneries should not operate at the expense of harming countless individuals. Accordingly, the court ruled in favor of the petitioner, mandating all tanneries to pay a fine of Rs. 10,000 each and awarding M. C. Mehta Rs. 50,000 for his environmental advocacy. Applying the precautionary principle directly to the case, the court instructed the Central Government to establish an authority under Section 3(3) of the Environment (Protection) Act, 1986, tasked with enforcing both the 'Precautionary Principle' and the 'Polluter Pays Principle'. The judiciary consolidated its earlier efforts by articulating universal doctrines such as "Polluter Pays" and "Precautionary Principle," marking the transition from case-specific orders to principle-based environmental governance. Furthermore, the court ordered tanneries to set up common effluent treatment plants as a remedial measure. Post-judgment, several tanneries in Tamil Nadu adopted cleaner production technologies and effluent treatment systems, improving groundwater quality and reducing river contamination.

4.10. Narmada Bachao Andolan vs. Union of India, AIR 2000 SC 3751: The Court's narrative matured into balancing competing interests — recognizing that true environmental justice lies in harmonizing ecological sustainability with the developmental aspirations of society. The Narmada Bachao Andolan opposes the construction of large dams on the Narmada River, particularly the Sardar Sarovar Dam, citing concerns over displacement of local communities, environmental degradation, and violations of human rights. The case "*Narmada Bachao Andolan vs. Union of India*" (AIR 2000 SC 3751) is a significant legal battle that represents the efforts of the NBA to challenge the construction of the Sardar Sarovar Dam in the Supreme Court of India. The judgment ensured rigorous environmental clearance mechanisms for future dam projects and increased compensatory afforestation efforts. A PIL was filed by Narmada Bachao Andolan in opposition to the Sardar Sarovar Project, which involved building sizable dams on the Narmada River. The project would cause ecological harm, according to the petition. In this ruling, the Supreme Court employed interpretation to achieve equilibrium between development requirements and introduce a new dimension to the "precautionary principle." The Supreme Court has given explicit orders restricting the height of a dam's construction to ninety meters. The subgroup assigned for this

purpose has approved the level of clearance, and any extra construction will need to get approval from the Environment Group for additional environmental clearance. The Court defined sustainable development as any type or degree of growth that can be supported by ecology or nature, with or without mitigation. According to the ruling, building a dam is neither a nuclear facility nor a harmful enterprise. Even while dam construction alters the ecosystem, it won't cause the ecological catastrophe that has been predicted. Therefore, the construction of a dam was allowed.

4.11. Almitra H. Patel &Ors. vs. Union of India and Ors.(AIR 2000 SC 1256. National Green Tribunal: Original Application No. 606/2018): With this case, the judiciary ventured into everyday urban environmental issues, proving that judicial oversight was not limited to large-scale ecological concerns but also extended to citizens' quality of life and public hygiene. The case involving Mrs. Almitra Patel and another focused on the management of Municipal Solid Waste (MSW) in India. Initially under the scrutiny of the Supreme Court for eighteen years, the proceedings were eventually transferred to the National Green Tribunal (NGT). Recognizing the complexity of solid waste management as a challenging task requiring specialized expertise and continuous oversight, the Supreme Court concluded that the NGT is well-equipped to address such environmental issues. Consequently, the case was transferred to the tribunal via an order dated September 2, 2014. In its 2016 deliberation, the tribunal highlighted the alarming statistic of over a lakh tonne of untreated waste being dumped daily, posing a significant environmental concern. Emphasizing the imperative to convert this waste into power and fuel to benefit society, the tribunal advocated for principles aligned with the circular economy. A crucial directive issued by the tribunal was the outright prohibition of open burning of waste on lands, including landfill sites, to mitigate environmental hazards. This case directly led to the formulation of the Solid Waste Management Rules (2016), resulting in improved urban waste segregation and recycling practices across India.

4.12. M.C. Mehta vs. Union of India AIR 2002 SC 1696- Vehicular Pollution Case: M.C. Mehta initiated a writ petition urging the court to mitigate vehicular pollution within the city. In response, the Supreme Court underscored the constitutional imperative to safeguard the environment, emphasizing the obligation for all vehicle operators to comprehend the detrimental impact of their emissions.. A committee was formed to evaluate the technologies that are currently available for reducing vehicle pollution, evaluate the state of technology in India, investigate low-cost options for lowering pollution levels in urban areas, assess the viability of pollution reduction measures, and offer specific recommendations on legal and administrative regulations. The group was mandated to present reports detailing the actions done within two months. As per the Supreme Court, Articles 39(c), 47, and 48A collectively impose upon the State responsibility to uphold public health and to protect and enhance the environment. Court mandated that all buses in Delhi should switch to compressed natural gas (CNG) by March 31, 2001. The court extended the deadline for conversion of buses to CNG to September 30, 2001. The court reiterated the importance of complying with previous orders on vehicular pollution control. The Court stressed that sustainable development, including ecologically sustainable development, constitutes a fundamental principle strengthening environmental legislation. Additionally, the precautionary principle and the polluter pays concept are the two key components of sustainable development. Following this ruling, Delhi witnessed a successful shift to CNG-powered public transport.

4.13. Samir Mehta vs. Union of India and Ors.; O.A. No. 24 of 2011 (National Green Tribunal): An environmentalist Samir Mehta filed a case against the Union of India and several other individuals filed a complaint to the National Green Tribunal seeking redress and compensation due to the environmental degradation caused by vessel wreckage. On August 4, 2011, the MV Rak Carrier, the Panamanian cargo ship, sank as it was transiting off the coast of Mumbai. At the time of the sinking, the ship carried 60,000 metric tonnes of coal and 290 tonnes of fuel oil. The sinking of the ship resulted in massive marine pollution through oil spills that put the entire marine ecosystem in Mumbai waters at risk including the local fishermen. The sinking amounted to severe environmental suffering given this spilled fuel oil and coal were released and deposited into the sea, leading to immediate and long-term marine life and water quality impacts. A ship carrying coal, fuel oil, and diesel, which caused damage to the marine ecosystem. The court upheld the Polluter Pays principle and found that the respondent's negligence was the cause of the ship's disaster. The right to a clean environment was also recognized by the court as a basic right protected by Article 21 of the Indian Constitution. Three things contributed to the ship sinking accident: the ship's wreckage, the release of fuel oil kept on board, and the disposal of coal into the ocean. The sinking was regarded as dumping because the ship utilized for the transport was not seaworthy. One of the biggest payments ever made by a private company to the government was the Rs. 100 crores in environmental compensation that was mandated. The compensation awarded under this case was utilized for coastal clean-up operations and restoration of the marine ecosystem near Mumbai.

4.14. Save Mon Region Federation and Ors. vs. Union of India and Ors.; M.A. No. 104 of 2012 before NGT: Representing the Monpa indigenous population in Tawang district, Arunachal Pradesh, the Save Mon Region Federation has contested the environmental approval given for a hydroelectric project on the Naymjang Chhu river. The federation raised concerns regarding the environmental impact assessment procedure and a lack of scrutiny by the expert appraisal committee (EAC). The National Green Tribunal concluded that the project should be considered sustainable development without irretrievable environmental loss. The project was near a black-necked crane (*Grus nigricollis*) wintering site, which is designated in Schedule-I of the Wildlife Protection Act of 1972 as an endangered species. The tribunal ordered the project to be suspended, and directed the EAC to submit a new proposal for environmental clearance. The Ministry of Environment and Forest was also directed to prepare a study on bird conservation. The NGT's suspension of the hydroelectric project protected the habitat of the endangered black-necked crane and preserved the fragile Tawang ecosystem.

4.15. Ms. Betty C. Alvares vs. The State of Goa and Ors.; M.A. No. 32 and 33 of 2014 (WZ) before NGT: Betty Alvarez, a non-Indian citizen, lodged a grievance concerning unauthorized construction in Candolim, Goa. Despite challenges asserting her lack of Indian citizenship and standing, the matter was forwarded to the National Green Tribunal. The Tribunal decreed that despite Alvarez's non-citizenship status, her complaint remains admissible due to her prior filings of writ petitions and contempt applications. It emphasized the principle that anyone, irrespective of nationality, has the right to initiate environmental dispute proceedings.

4.16. Paryavaran Suraksha vs. Union of India (2017) 5 SCC 326: In a mandamus petition to the Supreme Court, the petitioners have asked that all industries that need the Pollution Control Board's "consent to operate" have a working effluent treatment plant. The court has ordered the

State Pollution Control Boards to send notices to all industrial units that need "consent to operate" and to inspect them to make sure they have a working primary effluent treatment plant. If the industry is unable to fully operationalize the plant within the notice period, they will be prohibited from engaging in any more industrial activity. If the boards recommend disconnecting electricity supply to an industry, they will do so. Disabled industries can then seek fresh "consent to operate" and resume industrial activities after receiving fresh consent.

4.17. Suomoto cognizance of non-compliance of environmental norms (Before the National Green Tribunal Original Application No. 189/2024): On the basis of the news article "Medical waste lying in the open, threat to patients' health " that appeared in "Hathras News" on January 23, 2024, this initial application was filed suo motu. The news item relates to scattering of bio-medical waste in the compound of Bagla Combined District Hospital, Hathras, Uttar Pradesh. The news item reveals that in the above hospital premises, the bio-medical waste is lying scattered which includes the used injection needles, bottles, empty medicines packets, etc., which are creating health hazard to the patients and their relatives. The news item further reveals that in spite of the fact that the scattered bio-medical waste in the hospital premises is harmful not only to the human beings but also to the cattle which eats a part of it, no action is being taken by the hospital management. On advance notice, the Uttar Pradesh Pollution Control Board (UPPCB) has filed the report on 01.03.2024. The report confirms the allegation of the news item and states that the hospital in question has committed violation of norms in the management of the bio-medical waste. As per the disclosure made in the report, show cause notice has already been issued to both the hospitals for imposition of Environmental Compensation (EC). Hence, the issue relating to the extent of violation, remedial action and imposition of EC needs to be considered by the competent authority of UPPCB. Thus, the Court disposed of the OA directing the UPPCB to take appropriate action after duly following the principles of natural justice and submit the action taken before the Registrar General of the Tribunal within three months.

4.18. Container Corporation of India Ltd. vs. Ajay Khera & Others Civil Appeal No. 3798 of 2019: The Supreme Court directs the Centre to formulate a policy of phasing out heavy duty diesel vehicles in its judgement on January 11, 2024. The National Green Tribunal received an original application from a former executive director of Central Warehousing concerning increased pollution at Tughlakabad's Inland Container Depot (ICD)." This application sought the directions to shift the operations of the Container Corporation of India Ltd. to outside the Delhi. According to the application, vehicles and trailers intended for transfer to and from destinations outside of Delhi should not use the ICD of Tughlakabad. The vehicles should use CNG or battery as fuel to reduce air pollution. Containers were coming for the destinations far from Delhi still using ICD. It was causing heavy traffic jams and; air and noise pollution. A request was made to deny entry to the vehicles which are not BS-IV compliant and to prohibit entry of the containers to the depot which were not headed for Delhi. The Supreme Court has ruled that Inland Container Depots are crucial for handling containerized goods, providing closeness, consolidation, and lower costs. The Tughlakabad ICD, with its customs offices and rail links, is vital to the area's transportation infrastructure. The Environmental Pollution (Prevention and Control) Authority (EPCA) recommended replacing older diesel vehicles with cleaner BS-VI heavy-duty diesel vehicles. The Court also directed recommendations to prevent air pollution and transition to cleaner fuels in Delhi. The Union of India is required to develop a cleaner vehicle program, and the Ministry of Road Transport and Highways will explore CNG, hybrid, and electric fuel sources for heavy-duty

vehicles. The Container Corporation will optimize ICDs around Delhi to reduce pollution and improve cargo handling.

4.19. Shantanu Sharma vs. Union of India & Ors. (Before the National Green Tribunal M.A. No. 13/2020): The major pollutants in fly ash are arsenic and mercury, which are harmful to land and water bodies. The applicant argues that the Ministry of Environment and Forest & Climate Change has failed to ensure proper monitoring and compliance mechanisms, leading to continued air and water pollution. The Tribunal has directed action plans to achieve 100% utilization of fly ash by 31.12.2017, considering the Ministry of Environment and Forest & Climate Change's notification. The 'Polluter Pays' principle needs to be invoked due to the ongoing pollution. The tribunal's directives led to increased compliance in fly ash utilization, reducing air and water pollution near thermal power plants. A working group was constituted to address the failure of measures and ensure transparency in the disposal process. The cumulative effect of these landmarked judgments gave rise to a set of judicial doctrines that now form the backbone of India's environmental jurisprudence. These doctrines are not abstract principles; they are the distilled outcomes of decades of judicial reasoning aimed at reconciling human development with ecological balance.

5. Doctrine Evolved by the Court

Drawing from the interpretation of Indian statutes and the Constitution, as well as adopting a liberal stance towards advancing social justice and upholding human rights, the Court has effectively delineated specific environmental law principles. These concepts are typically justified even when they are not stated expressly in the relevant statute, as they have frequently found reflection in the Constitution in some way. There have also been occurrences where the judiciary gave the environment precedence over development since the circumstances called for an immediate and specialized policy framework.

5.1. The Precautionary Principle: The precautionary principle states that in situations where there is a risk of significant or irreversible environmental harm, attempts to prevent environmental deterioration should not be postponed. As acknowledged by the Supreme Court in the historic case of *Vellore Citizens' Welfare Forum vs. Union of India*, it is a cornerstone of Indian environmental law. In *A.P. Pollution Control Board vs. M.V. Nayudu* case, the Supreme Court scrutinized the evolution and application of the precautionary principle within Indian environmental law. The Court highlighted the principle's adaptability over time, evolving throughout time with scientific advancements and emerging challenges. Emphasizing the imperative of a precautionary stance, the Court reaffirmed its importance in averting environmental degradation, even in situations lacking robust scientific evidence. The Supreme Court used the precautionary principle in the Narmada case to address the building of dams on the Narmada River. The Court ruled that, particularly in situations where the extent of potential damage remains uncertain, the industry or unit that is most likely to create pollution has the burden of proof. This decision is significant because it transfers the responsibility of proving innocence from the government or environmental organizations to companies, which are now required to demonstrate that their actions will not adversely impact the environment. To preserve the environment from severe or irreversible harm, employ the precautionary principle. It is particularly crucial when there is ambiguity in the science underlying the potential environmental effects of a particular activity. The precautionary principle-

based rulings of the Supreme Court have significantly influenced Indian environmental legislation and contributed to the environment protection from dangerous industrial contamination.

5.2. The “Polluter Pays” Principle: The Supreme Court has decided to uphold the practice of calculating environmental damages based on the Court's analysis of the circumstances rather than a claim advanced by either side and considering factors such as the award's deterrent effect. However, it recently decided that the authority under Article 32 to impose a fine for pollution would not include the ability to award damages or even exemplary damages to make up for environmental harm. The principle of "polluter pays" has also been recognized as a fundamental element of governmental efforts in pollution prevention and control. Indian Council of *Enviro-Legal Action vs. Union of India* was the first case in which the polluter pays principle was applied in India.

5.3. Public Liability: The case of *M.C. Mehta and Associates vs. Union of India and Others* discusses public liability doctrine. The Oleum Leakage Case (1985, Delhi) is another name for this incident. The Supreme Court of India established the principle of Absolute Liability in a historic decision. The Court decided that it was impossible to sustain the setting up of any hazardous enterprise so near to a human population, thus the industry was moved. The Deep Pocket Principle was discovered through the immediate situation. Deep Pocket Principle alludes to the notion that someone who is reasonably well-positioned to handle the risk associated with an activity should bear that risk. This ruling prompted the addition of a new chapter to the Factory Act of 1948 by the Parliament. In addition to installing the strategy for pollution control, the Public Liability Act, 1991 was also passed. The Court will not permit Municipal Government to mock the Statutes by lounging around when the Directive Principles of State Policy have clear legal meanings. In the case of *Ratlam vs. Vardhichand Municipal Corporation*, the Supreme Court ordered the Ratlam Municipal Council to promptly abide by the Sub-Divisional Magistrate's directive to safeguard the environment from pollution brought about by the flow of alcohol into residential neighbourhoods. When people in anguish scream for justice, the case of a lack of capital will be a tenuous defense. Infractions of the constitution and other statutory provisions will result in sanctions for the office in charge and even the chosen delegates.

5.4. Sustainable Development and Inter-generational Equity: Development that meets present demands while preserving the capacity of succeeding generations to meet their own needs is referred to as sustainable development (Brundtland GH, 1987). It involves conserving earth's biodiversity by slowing extinctions, habitat destruction, and avoiding significant environmental changes. The Supreme Court's decision in *Narmada Bachao Andolan vs. Union of India* highlights the significance of fostering sustainable development and precautionary principle, which can be achieved through material or economic progress. As a developing country, economic progress is crucial, but environmental care must also be taken. To ensure sustainable development within the Indian legal framework, good legislation must be implemented. The courts in India prioritize environmental matters, considering ecological sacrifices while considering community importance. This ethical mix, known as sustainable development, has been recognized by the Supreme Court in cases like *Taj Mahal Trapezium* and *State of Himachal Pradesh vs. Ganesh Wood Products*, promoting inter-generational equity for forest resource protection, conservation and sustainable development. The Court's narrative matured over the time into balancing

competing interests - recognizing that true environmental justice lies in harmonizing ecological sustainability with the developmental aspirations of society.

5.5. The Doctrine of Public Trust: The Court established Professor Joseph Sax's public trust concept, which requires conservation by the government in order to further legitimize and maybe extract governmental initiative to protect natural resources. In *M.C. Mehta vs. Kamal Nath*, [(1996) 1 SCC 38] The Supreme Court decreed that the state bore the duty of preserving all natural resources as their trustee, given that they were designated for public use and could not be transferred to private ownership. *MI Builders Pvt. Ltd. vs. Radhey Shyam Sahu*, AIR 1996 SC 2468: A city development authority was instructed to dismantle an underground market (Aminabad Market, Lucknow) constructed beneath a historically significant garden.

5.6. The Relaxation of the Rule of Locus Standi: Nearly all academics concur that the Indian higher judiciary's deliberate efforts to protect the environment started when the locus standi rule was relaxed and the "proof of injury" method was abandoned. Locus standi is a rule that determines who can take a case to court. It is a threshold requirement that links a person or group to the law or action they are challenging and they have to undergo a certain degree of harm. In *S.P. Gupta vs. Union of India* (1982 AIR 149), the Court relaxed the locus standi for the access of justice for public spirited individuals and organizations. Proof of injury is a critical element in establishing locus standi. This means that the plaintiff must demonstrate that the defendant's behavior has resulted in the plaintiff having to bear a particular damage or that he is on the threshold of suffering it. Moreover, in order to establish the case, the plaintiff must demonstrate that on the one hand he is responsible for the injury and that on the other the injury was caused by another person. There were some major consequences of this rule's easing, many of which were of relevance to environmental problems. First, the court was able to approach the case from the perspective of an environmental problem that needed to be handled rather than a disagreement between two parties since it was feasible that other petitioners may file for the same set of facts involving an environmental threat or tragedy. Second, the regulation addressed a number of unrepresented interests, such as those of the general public, who ordinarily had no access to the higher judiciary. The process also brought the tension between the interests of development and the environment into stark relief and prepared the ground for a number of choices that would address problems in this area in more detail. From the above analysis, it becomes clear that the judiciary's role extends far beyond interpreting statutes. The courts have acted as a moral compass, filling institutional voids, enforcing accountability, and ensuring that environmental rights remain justiciable. Their judgments collectively narrate India's journey from environmental neglect to environmental consciousness.

6. Conclusion

The analysis of the judiciary's role in preserving the environment reveals a multifaceted and ever-changing landscape that is redefined by landmark decisions made by the NGT and the Supreme Court. Through the meticulous study of these decisions and the subsequent formulation of principles such as the precautionary and public trust doctrines, it becomes evident that the court has had a significant impact on the country's environmental jurisprudence. Moreover, aside from addressing specific environmental problems, the court's involvement in these issues sets a

precedent for legislation and future cases, effectively establishing a basis for environmentally responsible growth and sustainable development.

In addition, the proactive nature of the judiciary's implementation of environmental laws and the prosecution of those who defy them underscores its commitment to the principles of environmental justice, ensuring that natural resources are protected and preserved for both the current and future generations. However, certain challenges remain, such as the effective enforcement of judicial decisions, the promotion of collaboration among various stakeholders, and the identification and addressing of new environmental threats in a rapidly changing global environment. Thus, while the judiciary has made considerable progress with respect to environmental conservation, more attention to detail and cooperation is required to address the enduring environmental issues and protect the planet for future generations. Although there may be some confusion about the separation of powers between the NGT and the Supreme Court, it ultimately serves as a critical mechanism of checks and balances. Indeed, the Supreme Court may overturn the NGT, ensuring that the environmental laws are implemented fairly and consistently. Overall, these judicial interventions have not only shaped environmental law but have also tangibly improved environmental quality through cleaner air, restored rivers, enhanced biodiversity protection, and increased ecological awareness among the public.

Ultimately, far from just rendering judgements, the judiciary's contribution to the preservation of the environment goes to the extent of upholding citizens' fundamental rights, maintaining ecological stability, and safeguarding sustainable development for a more resilient and prosperous future. For sustainable development and conservation of our only planet, the government need to strictly implement the various rules enacted from time to time and regularly amend them according to the new challenges arising during fast phase of development. The judiciary indeed has played a commendable role in addressing environmental degradation and ensuring that the principle of sustainable development is upheld. Through various landmark judgements the court has acted as the guardian of environmental justice. However, the responsibility of protecting the environment does not lie on the judiciary and the government alone. Every citizen as mandated under article 51A(g) of the Indian constitution holds a fundamental duty to protect and improve the natural resources like forests, lakes, rivers and wildlife. True environmental justice can be achieved only when government judiciary and citizens work in harmony towards a cleaner, healthier, and sustainable future.

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