



Impact of Public Interest Litigation on environmental justice in India

The Name of Author(s);

1. **Vidya A R, Research Scholar, Shri Venkateshwara University, Gajraula U P**
2. **Dr Shyam Lal, Associate Professor, Shri Venkateshwara University, Gajraula U P**

Abstract

The environment constitutes the physical and biological systems, air, water, and soil, whose interaction sustains ecological balance and supports all forms of life. In recent decades, this balance has been severely disrupted by the excessive and unsustainable exploitation of natural resources driven by rapid industrialization, urbanization, technological advancement, and population growth. Environmental degradation has emerged as a critical global concern, posing a direct threat to human survival, ecological stability, and sustainable development. The misuse and overuse of environmental resources have resulted in widespread pollution, deforestation, biodiversity loss, climate change, and the depletion of natural ecosystems.

Air pollution, in particular, represents one of the most severe consequences of ecological imbalance. According to the State of Global Air Report 2023, air pollution caused approximately 6.7 million deaths worldwide, with India alone accounting for over 1.6 million fatalities. Water pollution from industrial effluents, sewage discharge, and oil spills has contaminated rivers, lakes, and oceans, severely affecting aquatic life and human health. Similarly, land degradation through erosion, chemical contamination, and unsustainable agricultural practices has compromised food security and soil fertility. Man-made disasters such as the Bhopal gas tragedy and the Chernobyl nuclear accident further illustrate the catastrophic consequences of technological interventions without adequate environmental safeguards.

Environmental degradation significantly impacts public health by increasing vulnerability to respiratory diseases, waterborne illnesses, and pandemics, disproportionately affecting marginalized and resource-poor communities. The COVID-19 pandemic underscored the interlinkage between environmental conditions and public health resilience. Addressing environmental degradation therefore requires strengthening environmental and health governance, adopting sustainable development practices, and fostering global cooperation. Public interest litigation

in the areas of environmental protection has a great impact in maintaining ecological sustainability, fundamental to safeguarding human rights, public health, and intergenerational equity.

Keywords: Environmental degradation, sustainability, marginalized sections, Constitution, Public interest litigation

1. Introduction

The environment is the physical and biological system in which man and other living beings survive. The main components of the environment are soil, water, and air. Ecological balance is ensured by the interaction of these components. The system as a whole supports the existence of mankind.

The “ecological balance” is being disturbed by the use, misuse, abuse, and extraordinary use of resources of the environment. This has a serious bearing on the very existence of the human race. When we upset nature, disturbing the ecological balance, the impact on human life is highly damaging. Recent studies point out that this balance is increasingly disturbed due to overexploitation and technological interventions also. According to the State of Global Air Report 2023,¹ air pollution was responsible for 6.7 million deaths globally, with India accounting for more than 1.6 million of them. This report underlines the urgent need for conservation and preservation of the environment in tune with the international standards.

Scientific and technological advancements have turned the ecological balance upside down. Industrialization and urbanization have resulted in uncontrolled deforestation and exploitation of natural resources. It creates problems related to insanitation, waste disposal, housing, availability of potable water, air pollution, acid rain, etc. It has also led to the “greenhouse” effect and ozone layer depletion.² There is an adverse cumulative effect of all these factors on nature; the worst affected are the majority of animals on the earth and under the sea. The nuclear reactor tragedy at Chernobyl³ and the Bhopal gas disaster⁴ are examples of manmade disasters.

The rapid increase in population and the accelerated rate of use of natural resources are leading to depletion of natural resources. Man has overdrawn from nature for the satisfaction of his multifarious needs, desires, and ambitions. Nature has lost its capacity for stable existence.

¹ Health Effects Institute. (2023). *State of Global Air 2023: A global assessment of air pollution and health*. Boston, MA: Health Effects Institute. <https://www.stateofglobalair.org/>

² <https://iris.who.int/bitstream/handle/10665/107334/9789289013550-eng.pdf>

³ United Nations Scientific Committee on the Effects of Atomic Radiation. (n.d.). “*Assessments of the radiation effects from the Chernobyl nuclear reactor accident*” Retrieved August 14, 2025, from <https://www.unscear.org/unscear/en/areas-of-work/chernobyl.html>

⁴ United Press Trust of India. (2010, June 13). *Bhopal gas leak one of several man-made disasters*. *Deccan Herald*. Retrieved August 14, 2025, from <https://www.deccanherald.com/india/bhopal-gas-leak-one-several-2494728>

Means and methods of environmental pollution are many and varied. Apart from the pollution of the environment, i.e., air, water, and land, there is noise pollution. There is pollution by way of land erosion. There is pollution of food from the use of drugs, hormones, and pesticides. Air pollution is the single factor responsible for the death of millions of human beings around the world. It adversely affects animal life and vegetation. Chronic bronchitis, breathing problems, lung cancer, and tuberculosis are results of exposure to air pollution.⁵ Water pollution is not limited to pollution of river waters alone, even lakes are not spared. A large quantity of industrial waste and human waste is being pumped into lakes. Seawater also has to cope up with pollution. A considerable amount of oil leaks into the sea from big oil carriers, leading to heavy damage to marine life.⁶ Passenger ships also contribute to contaminating the ocean by throwing away leftover food and other waste into the seabed.

Environmental degradation signifies the progressive decline in the quality of the environment due to the depletion of natural resources like air, water, and soil. It includes the destruction of ecosystems, loss of biodiversity, and extinction of wildlife, causing an immediate threat to ecological balance and sustainability.⁷ It results in deforestation, pollution, climate change, and habitat destruction which ultimately threatens ecosystems and human well-being. Environmental degradation is a very serious barrier to the progress of a country that requires sustainable practices, conservation efforts, and above all global cooperation to protect the planet for future generations.

It poses a major threat to the health of the people, influencing factors such as food security, air and water quality, and climate resilience. This attracts our attention to the issue of strengthening our health governance to effectively manage public health issues. Pandemic times have proved that poor environmental conditions can lead to increased exposure to diseases, which disproportionately affects marginalized communities that are often denied the resources to overcome these risks.⁸

Environmental Degradation affecting Marginalized communities

Marginalized communities, meaning the low-income neighborhoods, indigenous populations, and sections of lower castes, often bear the ill effects of environmental degradation. This relationship between social marginalization and environmental harm arises due to the factors of inequalities prevailing in the society. In addition to this, there are economic reasons, and political neglect. Understanding this relationship is essential to addressing its far-reaching consequences and finding solutions that promote environmental justice.

⁵ U.S. Environmental Protection Agency. (2011). *Effects of air pollutants on ecological resources: Literature review and case studies* (EPA 430-R-11-004). Washington, DC: U.S. EPA

⁶ NOAA Office of Education. (2020). *Oil spills*. In *Resource collections: Ocean & coasts*. National Oceanic and Atmospheric Administration. Retrieved August 14, 2025, from <https://www.noaa.gov/education/resource-collections/ocean-coasts/oil-spills>

⁷ Şeren, E., & Çelekli, A. (2024). *Biodiversity loss: A global issue threatening ecological balance*.

⁸ World Health Organization. (2023, May 26). *Lessons learned from COVID-19 for the environment and health agenda: Web annex: Rapid review of reviews on COVID-19, environment and health*. Regional Office for Europe. <https://www.who.int/europe/publications/i/item/9789289060066>

The prime factor connecting marginalized communities to environmental degradation is their disproportionate exposure to pollution. Many of these communities are located near industrial areas, landfills, highways, and other sources of contamination due to lower land costs and weaker political support. As a result, these inhabitants pose heightened risks of exposure to air and water pollution, leading to severe health eventualities such as respiratory diseases, cardiovascular conditions, and cancer.⁹

Limited political representation further accelerates environmental degradation in marginalized communities. These populations frequently lack influence within government decision-making processes, making it difficult to demand stricter environmental regulations or claim accountability from polluting industries. Government policies often prioritize economic development over community well-being, resulting in constant environmental exploitation. Without adequate representation, these communities are subjected to extreme eventualities.

In addition to this, health disparities are one of the most serious concerns, as proximity to pollutants can lead to chronic illnesses, birth defects, and premature deaths. Children, the elderly, and individuals with preexisting conditions are comparatively more prone to environmental hazards.

Economic factors also contribute. Due to systemic barriers, marginalized communities often have fewer resources to resist environmental harm. Many lack access to adequate healthcare, clean drinking water, and safe housing. Economic inequality also prevents residents from moving to areas with better environmental conditions, restricting them to unhealthy living conditions.

Apart from health effects, economic hardships arise from environmental degradation. Polluted environments lower property values, reduce employment opportunities, and increase healthcare expenses. Many marginalized communities rely on natural resources for their livelihoods, and environmental destruction can disrupt local economies, forcing residents into deeper financial insecurity. The World Bank (2022) estimates that India loses about 8.5% of its GDP annually due to environmental degradation.¹⁰ WHO (2022) estimates the economic cost of air pollution in India at \$56 billion/year.¹¹ Environmental degradation costs the country ₹3.75 lakh crore annually.¹²

Loss of cultural identity is another disturbing factor. Many indigenous and marginalized communities maintain deep spiritual and historical connections to their land. Environmental degradation threatens sacred sites, disrupts

⁹ Brender, J. D., Maantay, J. A., & Chakraborty, J. (2011). Residential proximity to environmental hazards and adverse health outcomes. *American Journal of Public Health*, 101(Suppl 1), S37–S52. <https://doi.org/10.2105/AJPH.2011.300183>

¹⁰ World Bank. (2025, April). *How is India trying to address air pollution?* Retrieved August 14, 2025, from World Bank website

¹¹ World Health Organization. (n.d.). *Air pollution* [Country page: India]. In *Health topics*. Retrieved August 14, 2025, from [https://www.who.int/india/health-topics/air-pollution#:~:text=In%202016%2C%20ambient%20\(outdoor\),inefficient%20and%20leaky%20cooking%20stoves.](https://www.who.int/india/health-topics/air-pollution#:~:text=In%202016%2C%20ambient%20(outdoor),inefficient%20and%20leaky%20cooking%20stoves.)

¹² World Bank. (2013, July 17). *India: Green growth is necessary and affordable for India, says new World Bank report* [Press release]. World Bank

traditional practices, and erases cultural identities. Moreover it leads to psychological distress and community fragmentation.

The recent landslides and floods in the Wayanad district of Kerala disproportionately affected the marginalized and vulnerable groups, including women, the elderly, children, people with disabilities, Scheduled Tribes, Scheduled Castes, and fisherfolk.¹³ The United Nations Environment Programme reports that ecosystem degradation affects over 3.2 billion people at the global level, disproportionately impacting the poor.¹⁴ Industrialization and urban expansion have led to pollution, waste mismanagement, and resource depletion. As a result of the environmental degradation, India's forest cover declined by 1,582 sq km in 2021.¹⁵

India, being largely an agrarian economy, a considerable part of the population depends directly on activities that are the most affected by climate change, mainly agriculture, forestry, and fishery. So these sections of people are the worst affected by environmental degradation. A study found that residents in low-income neighborhoods are three times more likely to be exposed to air pollutants than those in affluent areas.¹⁶

Slum dwellers and the urban poor suffer from high levels of air and water pollution due to industrial emissions, waste dumping, and lack of sanitation. Example: Residents of Dharavi in Mumbai experience severe air pollution and inadequate waste management. National Family Health Survey-5 data shows that childhood stunting and respiratory illness are significantly higher in polluted districts of India.¹⁷ In the US, African-American and Latino communities are 1.5 times more likely to live near polluting industries.¹⁸

Soil degradation, water scarcity, and unpredictable weather patterns caused by climate change affect agriculture and lead to poverty and food insecurity among farmers and rural communities. Indian farmers in states like Maharashtra and Punjab suffer from declining groundwater levels and pesticide pollution. Over 70% of surface water in India is polluted, with domestic sewage being the largest contributor.¹⁹

¹³ Sathyan, S. (2024, July 31). *Wayanad landslides: What exactly happened?* ESG TIMES. Retrieved from <https://www.esgtimes.in/climate/wayanad-landslides-what-exactly-happened/>

¹⁴ United Nations Environment Programme. (2021). *Becoming Generation Restoration: Ecosystem restoration for people, nature and climate*. United Nations Environment Programme. <https://www.unep.org/resources/ecosystem-restoration-people-nature-climate>

¹⁵ Forest Survey of India. (2021). *India State of Forest Report 2021*. Ministry of Environment, Forest and Climate Change, Government of India. <https://fsi.nic.in/isfr2021/isfr-2021-vol-i.pdf>

¹⁶ Arku, R. E., Vallarino, J., Dionisio, K. L., Willis, R., Choi, H., Wilson, J. G., ... & Ezzati, M. (2008). Characterizing air pollution in two low-income neighborhoods in Accra, Ghana. *Science of the total environment*, 402(2-3), 217-231.

¹⁷ Ranjan, M., & Singh, A. (2024). Health matters: a statistical approach to understand childhood illnesses in the North-East States of India, 2019–2021. *BMC Public Health*, 24(1), 1-22.

¹⁸ Campbell, H. E., Kim, S., Johnson, S., & Caceres, C. (2023). Environmental racism and air pollution: Pre and post the COVID-19 economic shutdown. *Review of Policy Research*, 42(4), 949–981

¹⁹ Dubey, D., Kumar, S., & Dutta, V. (2024). A circular economy approach for sustainable water reuse in India: policies, practices and future prospects. *Environmental Sustainability*, 7(3), 303-323.

Rising sea levels, coastal erosion, and extreme weather events threaten livelihoods, forcing communities to migrate. Example: The Sundarbans region in India and Bangladesh faces frequent cyclones and land submersion, affecting local fishing and farming communities. Migration leads to displacement, loss of identity, and conflicts over resources. Villages in Assam and Odisha face recurring floods, leading to forced migration. Adivasi displacement also happens due to dam construction and forest clearance..²⁰ In Brazil, over 200 Indigenous tribes face threats from illegal mining in the Amazon.²¹

Apart from the marginalized groups such as Scheduled Castes (SC), Scheduled Tribes (ST), and slum dwellers, the women in marginalized communities are also affected badly. Since they bear the burden of water collection, fuel gathering, and household management, they are subjected to bear the brunt of environmental harm due to socio-economic vulnerabilities, making them vulnerable to resource scarcity.²² Children also suffer from malnutrition and respiratory diseases due to poor environmental conditions.

In the United States, African-American and Latino neighborhoods face heightened risks of asthma, cancer, and developmental disorders due to proximity to hazardous waste facilities and high-traffic areas.²³ Similarly, in Brazil and Indonesia, deforestation and mining projects displace Indigenous communities, taking away their land and affecting the traditional knowledge systems. These global mechanisms reflect the systemic nature of environmental injustice seen in India, where Dalits, Adivasis, and unorganized sector workers face the compounded risks of pollution, displacement, and inadequate healthcare or compensation.

Additional environmental burdens are added by the rise of digital economies. The proliferation of electronic waste (e-waste), expansion of energy-intensive data centers, and extraction of rare-earth minerals for digital devices have created hidden ecological threats. India, Ghana, and China have become hubs for informal and unsafe e-waste recycling, exposing vulnerable sections of the society, especially women and children, to toxic heavy metals like lead and mercury.²⁴ The United Nations Environment Programme (UNEP) plays a crucial role in environmental protection and governance by leading and coordinating global efforts to address environmental challenges.

²⁰ Ghosh, D. (2021). The bones of our mother: Adivasi dispossession in an Indian state. In *The Routledge companion to global indigenous history* (pp. 443-463). Routledge.

²¹ Carstens, M. (2021). Indigenous Rights and covid-19–Indigenous Land and Health Under Serious Threat in Brazil. *International Journal on Minority and Group Rights*, 29(3), 528-576.

²² National Commission for Women. (2017, January 13). *Socio-economic status of women of denotified and nomadic communities in Delhi* [PDF]. National Commission for Women. https://cdn.ncw.gov.in/wp-content/uploads/2025/01/Socio_Economic_Status_of_Women_of_Denotified_and_Nomadic_Communities_in_Delhi13012017.pdf

²³ EPA. (2022). *Environmental Justice and Air Pollution*. U.S. Environmental Protection Agency. <https://www.epa.gov/environmentaljustice>

²⁴ United Nations Environment Programme. (2021). *Healthy environment, healthy people: UNEP synthesis report*. United Nations Environment Programme. <https://www.unep.org/resources/healthy-environment-healthy-people-unep-synthesis-report>

Climate Migration: A Global Challenge

Environmental degradation is increasingly causing forced migration. The World Bank's Groundswell Report (2021) estimates that climate change could displace up to 216 million people globally by 2050, including over 40 million in South Asia.²⁵ In India, frequent floods in Assam, Bihar, and Odisha; rising sea levels in the Sundarbans; and prolonged drought in Bundelkhand have already led to widespread displacement. These migrants often relocate to urban locations lacking secure tenure, clean water, healthcare, and employment.²⁶

At the global level also, similar situations are visible in the Sahel region of Africa due to desertification²⁷ and in Pacific Island nations such as Tuvalu and Kiribati, which face submergence from rising seas.²⁸ Such climate-induced migration can intensify poverty, social tensions, and conflict over depleting resources.

The changing climate will have a devastating effect on the health of all people. Increases in temperature lead to increased risk of heatstroke and more tropical diseases in North Indian states. Climate change also affects emergency preparedness in the case of flooding and also leads to economic migration. Law should be used to reduce climate change. It is made possible through regulating industry and other sources of greenhouse gases. It has to ensure timely and adequate adaptation measures to protect the health of the people and of the planet.

Economic Costs of Environmental Degradation

The economic costs of environmental degradation are vast and aggravating. According to the World Bank (2022), air pollution alone reduces India's GDP by approximately 8.5% annually through increased expenditure on healthcare. Diminished agricultural productivity and lost labour output also counted.²⁹ India's Ministry of Environment, Forest and Climate Change (MoEFCC) estimates annual economic losses from environmental degradation at ₹3.75 lakh crore.³⁰ These costs disproportionately burden the poor, especially those dependent on agriculture, fishing, or informal sectors who lack resilience to ecological disasters.

²⁵ World Bank. (2021). *Groundswell Part 2: Acting on Internal Climate Migration*.

<https://www.worldbank.org/en/news/feature/2021/09/13/groundswell-part-2-acting-on-internal-climate-migration>

²⁶ Ramakrishnan, D. (2025, June 12). *India's climate exodus has begun*. *The Hindu*. Retrieved August 14, 2025, from <https://www.thehindu.com/environment/climate-migration-india-floods-displacement-2024/article69686419.ece>

²⁷ World Health Organization. (2022, June 10). *Humanitarian crisis in Sahel region of Africa*. WHO. Retrieved August 14, 2025, from World Health Organization website

²⁸ Giordano, G. (2024, November 28). *Small-island nations: Climate threat and relocation*. Vision of Humanity. Retrieved August 14, 2025, from Vision of Humanity website: <https://www.visionofhumanity.org/small-island-nations-climate-threat-and-relocation/>

²⁹ World Bank. (2022, February 25). *Air pollution: Economic burden on India*. World Bank. <https://www.worldbank.org/en/news/feature/2022/02/25/air-pollution-india>

³⁰ Ministry of Environment, Forest and Climate Change. (2020). *India state of forest report 2019*. Forest Survey of India. <https://fsi.nic.in/isfr2019/isfr-2019-vol-i.pdf>

At the regional level, Asia-Pacific nations together face over \$700 billion in annual losses from natural disasters such as cyclones, floods, and droughts.³¹ As these disasters intensify under climate change, the economic stability of vulnerable countries and communities becomes increasingly precarious.

Cultural Erosion and Displacement of Adivasi Communities

Environmental degradation and development-oriented displacement also erode cultural identities. In India, large-scale projects such as dams, mining, and deforestation have led to the displacement of Adivasi communities. “Our gods live in these forests. When you cut the trees, you kill our spirits,” said a displaced Adivasi elder from the Polavaram Dam site.³² The Polavaram Dam project in Andhra Pradesh displaced thousands of tribal families, separating them from their ancestral relationship with the land, forests, and rivers. Displacement interrupts community rituals, destroys sacred sites, and undermines indigenous systems of governance and knowledge.

Indigenous people safeguard 80% of global biodiversity.³³ India must protect this treasure by integrating Free, Prior, and Informed Consent (FPIC) into forest and land acquisition processes.³⁴

This phenomenon has global resemblances. The Maasai of Kenya and Tanzania are being evicted from ancestral lands under the guise of conservation and tourism,³⁵ while the Inuit of the Arctic are losing traditional hunting and survival practices due to melting ice and changing ecosystems. These glaring examples of cultural disintegration reaffirm that environmental harm goes far beyond physical displacement by constituting an existential threat to indigenous communities.

The UN said climate change and environmental degradation were some of the most pressing threats to humanity's future. It called on states to step up efforts to ensure their people have access to a "clean, healthy, and sustainable environment."³⁶

Protection of the environment brings out difficult and complex issues. Therefore, the difficult question before the world today is whether we can afford this destruction of the environment. Despite the tremendous exploitation of our environment by mankind, it is still possible for us to stop the depletion of the resources by taking preventive measures.

³¹ United Nations Economic and Social Commission for Asia and the Pacific. (2021). *Disaster resilience for sustainable development in Asia-Pacific*. United Nations ESCAP. <https://www.unescap.org/kp/2021/disaster-resilience-sustainable-development-asia-pacific>

³² Ghosh, A. (2018). Polavaram: Development or Displacement? *Economic & Political Weekly*, 53(23), 14–17.

³³ Parks, L., & Tsoumani, E. (2023). Transforming biodiversity governance? Indigenous peoples' contributions to the Convention on Biological Diversity. *Biological Conservation*, 280, 109933. <https://doi.org/10.1016/j.biocon.2023.109933>

³⁴ Trivedi, A. (2025). Implementing REDD+ safeguards and protecting the rights of tribal and forest communities in India: With special emphasis on the principle of free, prior, and informed consent. *Jindal Global Law Review*, 1-38.

³⁵ Human Rights Watch. (2024, July 31). “It’s like killing culture”: Human rights impacts of relocating Tanzania’s Maasai. Human Rights Watch

³⁶ United Nations Environment Programme. (2022, July 28). *In historic move, UN declares healthy environment a human right* [News story]. United Nations Environment Programme. <https://www.unep.org/news-and-stories/story/historic-move-un-declares-healthy-environment-human-right>

Environmental Governance in India

Environmental governance is an area that is continuously developing depending on the need to manage the country's diverse environmental challenges. The four main themes of environmental governance are sustainable development, environmental justice, public participation, and transparency and accountability.³⁷ In India, environmental governance is important for several reasons, such as sustainable resource management, ensuring ecological stability, protection of biodiversity, climate change mitigation, etc.

Through a combination of environmental legislation, policies, initiatives, and institutional mechanisms, India aims to protect its environment while pursuing sustainable development. Overcoming existing challenges and implementing effective measures will be crucial for preventing environmental degradation in India and ensuring a healthier and more sustainable future.

Our ancient text, the Rigveda, also reflects our ancient social life living in harmony with nature. Our scriptures ask us to worship nature, having concern for the environment. Worship implied the acknowledgement of our dependence on the environment. Our ancient scriptures mention a worshipful attitude towards plants, trees, the Mother Earth, sky, air, water, and animals and maintaining a benevolent attitude towards them. It was regarded as the sacred duty of every person to protect them. The aim is to respect nature and ensure environmental harmony and conservation. Manu Smriti prescribed various punishments for destroying trees and plants. Charak Samhita considered the destruction of forests as the most dangerous act against humanity.

Constitutional and Legal Framework

Constitutional Provisions

The philosophy of peaceful coexistence with nature is enshrined in our Constitution too. Articles 21, 48-A, and 51-A relating to environmental issues were incorporated in the Constitution.

The major constitutional provisions related to environmental health and human rights in India are Article 21, which guarantees the right to life, interpreted by the judiciary to include the right to a healthy environment,³⁸ Article 48A, directing the state to protect and improve the environment and protect forests and wildlife and Article 51A(g), which imposes a fundamental duty on citizens to protect and improve the natural environment.

³⁷ United Nations Development Programme. (2014, March). *Governance for sustainable development: Integrating governance in the post-2015 development framework* (Discussion Paper). United Nations Development Programme.
<https://www.undp.org/sites/g/files/zskgke326/files/publications/Discussion-Paper--Governance-for-Sustainable-Development.pdf>

³⁸ M C Mehta V Union of India 1987 SCR (1) 819

Environmental Legislations

In addition to constitutional guarantees, India has enacted several environmental laws to protect the right to a clean and healthy environment. The Environment Protection Act, 1986, serves as the major legislation providing an absolute mechanism for the protection and improvement of environmental quality, along with setting standards for emissions and discharges. Supporting this, the Air (Prevention and Control of Pollution) Act, 1981, focuses on preventing and controlling air pollution through the establishment of Central and State Pollution Control Boards.

Similarly, the Water (Prevention and Control of Pollution) Act, 1974, aims to regulate water pollution and ensure compliance through authorised pollution control authorities. The Wildlife Protection Act, 1972, is designed to conserve biodiversity by protecting wildlife species and their natural habitats, thereby maintaining ecological balance. Furthermore, the Forest Conservation Act, 1980, restricts the use of forest land for non-forest purposes, ensuring the preservation of forest ecosystems and promoting sustainable development.

Regulatory and Institutional Mechanisms

Various national and international regulatory bodies play a vital role in protecting the environment and reducing degradation through implementation of various policies, supervising, and enforcement mechanisms. These agencies are mentioned below.

National Authorities

In India, the Ministry of Environment, Forest and Climate Change (MoEF&CC) serves as the primary authority responsible for framing and implementing environmental protection policies. In addition to this, the Forest Survey of India (FSI) regularly takes stock of forest resources, tracks deforestation trends, and publishes data crucial for sustainable forest management. The Central Pollution Control Board (CPCB), along with the State Pollution Control Boards (SPCBs), monitors pollution levels and enforces environmental standards to prevent air, water, and soil pollution throughout the country.

Additionally, the National Green Tribunal (NGT) acts as a specialized judicial body dedicated to the fast and effective resolution of environmental disputes. The tribunal ensures adherence to environmental laws and promoting justice in environmental governance. Together, these institutions act as the strong backbone of India's environmental regulatory framework

International Bodies

Several international bodies play a significant role in promoting global environmental protection and sustainability. The United Nations Environment Programme (UNEP) is in the forefront of global environmental initiatives. It coordinates international efforts and providing support to developing nations in adopting sustainable practices. The Intergovernmental Panel on Climate Change (IPCC) supplies authoritative scientific assessments on climate change, its impacts, and essential mitigation strategies. The International Union for Conservation of Nature (IUCN) works on conserving biodiversity and promoting the sustainable management of natural resources worldwide.

The World Health Organization (WHO) addresses environmental health risks by monitoring issues such as air and water pollution that directly affect human well-being. Additionally, the United Nations Framework Convention on Climate Change (UNFCCC) facilitates international cooperation to reduce climate change impacts through mechanisms such as the Paris Agreement, encouraging nations to commit to reducing greenhouse gas emissions. Collectively, these organizations form a global network working on advancing environmental protection and promoting sustainable development.

International Commitments

India is a signatory to numerous international treaties and conventions that act as a guiding force in framing its environmental policies and legal frameworks. These global agreements provide a basic structure for India to balance its domestic environmental regulations with international standards. This measure promotes sustainable development and ecological balance. Most important among them is the United Nations Framework Convention on Climate Change (UNFCCC) and its subsequent Paris Agreement, under which India has committed to reducing greenhouse gas emissions and enhancing renewable energy capacity through its Nationally Determined Contributions (NDCs).³⁹

The Convention on Biological Diversity (CBD) has been effective in the formulation of India's Biological Diversity Act, 2002, aimed at conserving biodiversity and ensuring the sustainable use of biological resources.⁴⁰ Similarly, the Stockholm Convention on Persistent Organic Pollutants (POPs) has facilitated India in charting out toxic chemicals, shaping its pesticide management and industrial emission control policies.⁴¹ The Basel Convention on Hazardous Waste has influenced India's regulatory approach to controlling transboundary waste

³⁹ United Nations Framework Convention on Climate Change (UNFCCC). (1992). *United Nations Framework Convention on Climate Change*. United Nations. <https://unfccc.int/>

⁴⁰ Convention on Biological Diversity (CBD). (1992). *Convention on Biological Diversity*. United Nations. <https://www.cbd.int/>

⁴¹ Stockholm Convention on Persistent Organic Pollutants (POPs). (2001). *Stockholm Convention on Persistent Organic Pollutants*. United Nations Environment Programme. <https://www.pops.int/>

movements. It led to the enactment of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.⁴²

Apart from this, the Montreal Protocol on Substances that Deplete the Ozone Layer has led to India's development of well crafted policies to eradicate ozone-depleting substances, considerably facilitating industrial, chemical and refrigerant policies.⁴³ The Ramsar Convention on Wetlands has been equally important, resulting in the identification, conservation, and sustainable management of ecologically significant wetlands across the country.⁴⁴ All together, these international obligations have enabled India to adopt an integrated approach to environmental governance. It ensures that national policies are in tune with global environmental ethics and sustainability objectives. By aligning with these conventions, India benefits from international cooperation, financial assistance, and access to advanced technology. All these measures strengthen its capacity to tackle environmental degradation and promote long-term ecological resilience.

The intersection of environmental health and human rights in India

The intersection of environmental health and human rights in India is marked by several factors.

Environmental Justice

The principle of environmental justice means fair and equitable distribution of environmental benefits and burdens among all communities. It provides special attention to protect marginalized groups who are disproportionately impacted by pollution and environmental degradation. Some landmark decisions in India that focus on environmental justice are given below.

In the landmark decision known as the Oleum Gas Leak case,⁴⁵ the Supreme Court established the principle of absolute liability for hazardous industries, pointing towards the need for strict adherence to environmental regulations to protect public health. The absolute liability principle evoked in this case is India's gift to the global environmental jurisprudence against the fight for environmental degradation. It marked the beginning of environmental jurisprudence in India.

⁴² Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. (1989). *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*. United Nations Environment Programme. <https://www.basel.int/>

⁴³ Montreal Protocol on Substances that Deplete the Ozone Layer. (1987). *Montreal Protocol on Substances that Deplete the Ozone Layer*. United Nations Environment Programme. <https://ozone.unep.org/>

⁴⁴ Ramsar Convention on Wetlands. (1971). *Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention)*. Ramsar Convention Secretariat. <https://www.ramsar.org/>

⁴⁵ M.C. Mehta v. Union of India 1987 AIR 1086, 1987 SCR (1) 819, 1987 SCC (1) 395

The Supreme Court recognized the concept of sustainable development and applied the precautionary principle, ruling that polluters must compensate affected communities.⁴⁶ This case addressed the issue of pollution from industries, holding that industries must comply with environmental standards. The decision emphasised that the government has a duty to prevent environmental degradation.⁴⁷

The Supreme Court pointed out the need for comprehensive measures to protect the Ganga River, recognizing the socio-economic rights of communities dependent on the river for their livelihood and health.⁴⁸ These cases highlight the expanding landscape of environmental justice in India, focusing on accountability, community rights, and sustainable practices.

Environmental justice emphasizes fair treatment and involvement of all people, regardless of socio-economic status, in environmental governance. As mentioned in the introductory part of this paper, poor communities in India face higher exposure to industrial pollutants, lack of clean water and air and greater vulnerability to climate-related health issues.

This disproportionate burden highlights systemic inequalities in policy implementation and environmental governance. The severity of climate change poses significant threats to global health, particularly in backward areas. India has showcased the might of its judicial system, reinforcing the progressive nature of India's judiciary and the compatibility of international requirements with the domestic laws of any country.

By a landmark decision, India has placed human rights at the centre of the debates around climate change. The Supreme Court has framed a new constitutional right to be free from the adverse effects of climate change on the basis of Article 21 (the fundamental right to life and personal liberty) and Article 14 (the fundamental right to equality) of the Indian Constitution.⁴⁹ The court has given a powerful weapon to the common man to hold any party not working towards climate change accountable, just as the European Court of Human Rights has held the Swiss government accountable.⁵⁰ India has a strong legal framework regarding environmental aspects.

A significant portion of India's environmental law has been shaped through careful judicial interpretations in the Supreme Court and High Courts. By exercising their powers under Articles 32 and 226 of the Constitution of India, respectively, these courts have played a crucial role in interpreting Article 21 to address issues related to environmental degradation. The courts have developed unique legal methods by incorporating international environmental principles into the interpretation of the Constitution and statutes. The decision implies a progressive

⁴⁶ Vellore Citizens Welfare Forum v. Union of India 1996 (5) SCC 647

⁴⁷ Indian Council for Enviro-Legal Action v. Union of India (1996) 3 SCC 212.

⁴⁸ M C Mehta vs Union of India 1988 AIR 1115

⁴⁹ M K Ranjitsinh & Ors v Union of India & Ors. 2024 INSC 280

⁵⁰ Verein KlimaSeniorinnen Schweiz and Others v. Switzerland, App. No. 53600/20 (Eur. Ct. H.R., Grand Chamber, April 9, 2024).

approach toward social justice and human rights protection, which has become a key element of India's environmental jurisprudence.

The judiciary, especially the Supreme Court and National Green Tribunal, has advanced environmental jurisprudence by recognizing environmental protection as essential to life and health under Article 21. The meaning of the provisions under Article 21 is extended to include rights related to health, thereby adding human rights to the core of environmental jurisprudence.

Right to a Healthy Environment

First and foremost comes the right to a healthy environment. This emerging concept mentions access to a clean environment as a fundamental human right, essential for health and well-being. The impact of environmental factors, such as air and water quality, on public health is critical. Diseases emanating from environmental hazards demand the need for protective measures. The judiciary has played a proactive role in interpreting environmental laws and rights, issuing guidelines and orders to ensure compliance and protect public health.

There are notable case laws in India related to the right to a healthy environment, considering the various aspects of the rights.⁵¹ The Supreme Court reaffirmed the right to a healthy environment as part of the right to life under Article 21. The case involved air pollution in Delhi, emphasizing the government's responsibility to protect citizens' health.

The interpretation of rights under Article 21 was broadened to include the right to a healthy environment, particularly in the context of women's safety and well-being in hazardous working conditions.⁵²

A clean and healthy environment is essential to lead a healthy and dignified life. In fact, most of the human rights are interrelated with the right to a clean and healthy environment. The Apex Court of India has also, in multiple decisions, emphasized that a healthy and wholesome environment is a fundamental right that pumps meaning into the right to life. Thus a healthy environment is vital for the protection and preservation of the constitutional right to life, and it also includes the right to health. This is because without proper and sound health, a human being cannot enjoy the basic right to life.

The Indian judiciary, through their activist role, has developed various principles for the protection and improvement of the environment. Some of the important principles are sustainable development, adopted by India

⁵¹ M C Mehta V Union of India 1987 SCR (1) 819

⁵² Vishaka & Ors. v. State Of Rajasthan & Ors. (1997) 6 SCC 241

in tune with the UN SDG framework in 2015,⁵³ the precautionary principle,⁵⁴ the polluter pays principle,⁵⁵ and the public trust doctrine already mentioned.

The development of all these principles along with the various aspects of the right to the environment would have a positive impact on the protection of the environment and its natural resources. Such an effective mechanism of legal regulation for the protection of the environment is a necessary attribute for the realization of the right to the environment.

These cases collectively reflect the judiciary's increasing recognition of environmental rights as integral to human rights, emphasizing effective measures for environmental protection. Indian courts have expanded the horizon of environmental rights using a progressive mechanism called Public Interest Litigations (PIL).

Public Interest Litigation (PIL)

It is an important feature of Indian environmental law. Since 1985, most environmental cases in India have been filed as writ petitions, often by individuals acting on a pro bono basis. PIL emerged from the relaxation of the locus standi rules. This shift allowed a large number of individuals and groups to approach the court, even if they were not directly affected.

The Indian judiciary has consistently upheld the public trust doctrine, with the Supreme Court and various high courts issuing directives spanning diverse environmental concerns.⁵⁶ These include air and water pollution, industrial pollution, deforestation, solid and hazardous waste management, vehicular emissions, illegal logging, wildlife conservation, plastic degradation, river contamination, and unauthorized mining. It is a constitutional and legal principle directing that the State holds public resources in trust for the benefit of the public and must allocate them in a transparent, fair, and equitable manner.

The Supreme Court has taken decisive action by ordering the closure of polluting industries and harmful fish farms. It enforced the use of cleaner fuels for vehicles, halting illegal mining,⁵⁷ preserving forests, and protecting architectural heritage such as the Taj Mahal.⁵⁸ Additionally, construction activities in ecologically sensitive areas

⁵³ United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development* (A/RES/70/1). United Nations. <https://sdgs.un.org/2030agenda>

⁵⁴ *Narmada Bachao Andolan v. Union of India*, AIR 2000 SC 3751.

⁵⁵ *Indian Council for Enviro-Legal Action v. Union of India* 1996 AIR 1446, 1996 SCC (3) 212

⁵⁶ *M.C. Mehta v. Kamal Nath*, (1997) 1 SCC 388 (India).

⁵⁷ *N. Godavarman Thirumulpad v. Union of India*, (1997) 2 SCC 267.

Centre for Environmental Law, *WWF-India v. Union of India*, (2013) 8 SCC 234

⁵⁸ *M.C. Mehta v. Union of India*, (1997) 2 SCC 353.

have been restricted. A large number of Public Interest Litigations (PILs) continue to be filed, reflecting the judiciary's proactive role in environmental protection.

In a landmark case, the Supreme Court addressed the failure of the Ratlam Municipal Council to establish a proper drainage system, citing a lack of funds as the reason. This case marked the introduction of the concept of Public Interest Litigation (PIL) in India. The court firmly held that a municipal body, entrusted with the duty of safeguarding public health, cannot evade its fundamental responsibility by citing financial constraints.⁵⁹

A prominent NGO filed a Public Interest Litigation (PIL) in the Supreme Court in 1991, challenging the large-scale illegal mining activities sanctioned by the state government within the protected area.⁶⁰ These activities were severely degrading the tiger habitat and driving the species toward extinction. In its response, the Supreme Court appointed a committee to identify mines operating within the protected area and ensure compliance with court orders and official notifications. The court also imposed a blanket ban on all mining activities within Sariska National Park and the designated tiger reserve.

Further strengthening environmental governance, the Chief Justice of India established a permanent Forest Bench in 1996 to handle cases related to forests and environmental conservation. In 2013, this bench was renamed the "Green Bench," which continues to oversee matters concerning sanctuaries and national parks, as these issues do not fall under the jurisdiction of the National Green Tribunal.

Conserted Efforts to combat Environmental Degradation

A comprehensive analysis of the interrelationship between environmental degradation and PILs in India in comparison with the global mechanisms necessitates a synergistic integration of environmental and health policies. The country's future lies in adopting coordinated frameworks. These frameworks can address ecological decline and public health inequities simultaneously, ensuring that the solutions are based on a rights-based approach. In the light of global best practices and India's internal mechanisms, the following measures are proposed to strengthen this assimilation.⁶¹

Strengthen Legal Mechanisms and Enforcement

India's environmental governance framework, based on important legislations such as the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974, and the Air (Prevention and Control of Pollution) Act, 1981, requires more stringent implementation and accountability. A rights-based

⁵⁹ Municipal Council, Ratlam vs Shri Vardhichand & Ors 1980 AIR 1622, 1981 SCR (1) 97

⁶⁰ Tarun Bharat Sangh v. Union of India, 1993 Supp. (3) S.C.C. 115 (India).

⁶¹ NITI Aayog. (2020). *Strategy for New India @75*. Government of India.

approach, emphasizing environmental health as integrated to the right to life under Article 21 of the Constitution, should guide enforcement.⁶² Establishing fast-track environmental courts and expanding the authority of the National Green Tribunal (NGT) will facilitate adjudication and ensure effective redressal in environmental disputes.⁶³

Promote Judicial Activism and Access to Justice

Judicial activism has been a cornerstone in shaping India's environmental jurisprudence. Awareness regarding Public Interest Litigation (PIL) must be enhanced to empower vulnerable communities to seek justice.⁶⁴ Strengthening legal aid and paralegal support systems can enhance access to environmental justice. Furthermore, expanding the extent of authority and investigative capacity of the National Human Rights Commission (NHRC) and the State Commissions can ensure more effective solutions in cases involving environmental human rights violations.⁶⁵

Ensure Equitable Distribution of Environmental Resources

Equitable access to natural resources remains central to the realization of environmental justice. Policymakers must ensure fair distribution of clean water, fresh air, forest produce, and agricultural land to marginalized communities, particularly Scheduled Castes (SCs), Scheduled Tribes (STs), and rural poor.⁶⁶ Initiatives promoting sustainable livelihoods through eco-friendly industries, organic farming, and green employment opportunities are essential for those displaced by developmental projects. Such interventions directly advance the social and economic rights enshrined under the Indian Constitution.

Environmental Protection through Inclusive Policies

Environmental decision-making should be inclusive and participatory, including the voices of those most affected. Active involvement of Adivasis, Dalits, fisherfolk, and women in environmental governance at all levels is critical. Strengthening community-led mechanisms through the Gram Sabhas under the Forest Rights Act, 2006, and the Panchayats (Extension to Scheduled Areas) Act (PESA), 1996, ensures democratic management of local ecosystems.⁶⁷ Environmental Impact Assessments (EIAs) must be conducted transparently, integrating social impact evaluations that specifically assess impact on marginalized sections.⁶⁸

Spread Awareness and Capacity Building among Stakeholders

⁶² Supreme Court of India. (2018). *M.C. Mehta v. Union of India*, AIR 2018 SC 2100.

⁶³ Ministry of Environment, Forest and Climate Change (MoEFCC). (2022). *Annual Report 2021–22*. Government of India.

⁶⁴ Kapur, D., & Bhatia, A. (2020). *Environmental Justice and the Indian Judiciary*. Indian Law Review, 12(3), 245–268.

⁶⁵ National Human Rights Commission (NHRC). (2021). *Annual Report 2020–21*. Government of India

⁶⁶ Dalit Arthik Adhikar Andolan. (2022). *Dalit Economic Rights Report*. DAAA Publications.

⁶⁷ Ministry of Tribal Affairs. (2021). *Implementation of Forest Rights Act: Status Report*. Government of India.

⁶⁸ Ministry of Environment, Forest and Climate Change (MoEFCC). (2022). *Annual Report 2021–22*. Government of India.

Environmental literacy and capacity-building initiatives are essential for long-term ecological sustainability. Awareness programs in regional languages can empower rural and marginalized sections to actively participate in environmental protection.⁶⁹ Training programs focusing on climate resilience, disaster preparedness, and pollution monitoring should be prioritized to strengthen local capacities. Encouraging participatory monitoring by community members enhances transparency and accountability in environmental governance.⁷⁰

Combat Environmental Health Inequities

Environmental degradation often translates into public health crises for vulnerable populations. Regular health check ups and pollution exposure assessments in affected areas are essential to detect and reduce risks early. Governmental efforts must include increased budgetary allocations for healthcare infrastructure, sanitation, and clean water in ecologically affected areas. Programs aimed at child mortality, respiratory illnesses, and malnutrition linked to environmental factors can substantially improve health equity.⁷¹

Adopt Fiscal and Technological Tools

Fiscal and technological innovations can significantly enhance environmental governance. Adequate public spending should be directed towards environmentally fragile and tribal regions. Adoption of clean and renewable technologies like solar power, biogas, and decentralized waste management systems can reduce ecological pressure.⁷² The combined application of Geographic Information Systems (GIS) and remote sensing technologies will improve environmental data management and help assess the socio-economic impact of ecological degradation on marginalized populations.⁷³

Introduce Climate Compatible Development Models

Climate adaptation policies must prioritize the needs of vulnerable and marginalized groups. Initiatives such as constructing flood shelters, promoting drought-resistant crops, and conserving local water bodies can build resilience against extreme weather conditions. Establishing green buffer zones and safeguarding ecologically sensitive regions inhabited by indigenous populations will help preserve biodiversity and cultural heritage simultaneously. Urban development policies should also prevent marginalized populations from residing near environmentally hazardous areas such as landfills, polluted rivers, or industrial zones.

By strengthening legal, fiscal, technological, and participatory mechanisms it can be ensured that environmental justice becomes integral to India's human rights agenda. Such extensive and multi faceted efforts linking state

⁶⁹ United Nations Development Programme (UNDP). (2022). *Climate Budget Tagging in India: Strengthening Climate Finance*. UNDP India.

⁷⁰ Ministry of Environment, Forest and Climate Change (MoEFCC). (2022). *Annual Report 2021–22*. Government of India.

⁷¹ World Health Organization (WHO). (2021). *Environmental Health Inequalities in South-East Asia*. WHO Regional Office

⁷² World Bank. (2021). *Enhancing Climate Resilience of India's Coastal Communities Project Report*. World Bank Group.

⁷³ Ministry of Environment, Forest and Climate Change (MoEFCC). (2022). *Annual Report 2021–22*. Government of India.

institutions, civil society, and local communities are essential for achieving environmental resilience, equity, and sustainable development for all.

Conclusion

The current scenario of environmental justice in India is created by various landmark judgements of our Apex Court, focusing on accountability, community rights, and sustainable practices. India, being a signatory to various international treaties, we respect international judgements too. Our Supreme Court has evolved principles of great importance that provide guidance for deciding complex environmental issues. Parliament has enacted laws needed for implementing decisions of the United Nations Conference on the Human Environment, which called upon the world's nations to take appropriate steps for the protection and conservation of the human environment.

As discussed above, the judiciary has done its best in ensuring environmental justice. The apex court took many unpopular decisions that have proved beneficial in the long run. Judicial directions in matters like pollution of our holy rivers, the Ganges and the Yamuna; pollution of underground water; choking of Delhi, Calcutta, and other metros due to air pollution; and protection of national historical monuments like the Taj Mahal have rendered noble service to humanity. Seeds have been planted, paths have been shown, and guidelines have been given.

Public interest litigation by individual enthusiasts and the NGOs has helped in the protection of the environment. However, apart from this, it is very essential to awaken the public towards their right to live in a pollution-free environment. Public awareness alone can achieve desired results. The solution to environmental problems lies in our hands. Citizens have to rise to the occasion.

We need to generate a feeling of responsibility among the citizens for preserving and creating a stable environment. Public participation in the implementation of environmental protection programmes is to be encouraged. Environment as a subject should be made compulsory at all levels of teaching, right from the primary level up to the university level. Education and awareness campaigns have to be conducted through the media. Unless drastic efforts are made, planet earth will become uninhabitable.

Looking from the angle of marginalized sections of the society, early warnings of environmental hazards and health risks is crucial for enabling communities to make informed decisions and fight for their rights. Practical solutions and policy frameworks that can be implemented at local, national, and international levels to overcome environmental health disparities.

The human rights framework envisions equity and the right to health for all individuals, particularly marginalized sections of society. Our health governance initiatives must include a human rights approach to address inherent inequalities that accelerate health disparities. This is to ensure that marginalized communities are not disproportionately burdened by environmental hazards, thereby ensuring the constitutional guarantee of social justice.

To wind up, environmental degradation violates fundamental human rights, disproportionately affecting marginalized communities. A rights-based, participatory, and highly inclusive policy approach is essential. The judiciary, policymakers, civil society, and international institutions must join hand in hand to provide environmental justice, uphold human dignity, and thereby achieve sustainable development.

