
ENVIRONMENTAL DEGRADATION CAUSES, THEIR EFFECTS, AND LEGAL REMEDIES

M. Gomathi

Introduction

Degradation of the environment is the term used to describe the loss of resources such as soil, water, and air, as well as the devastation of ecosystems and the extinction of wildlife. Any alteration or disruption of the environment that is deemed detrimental or unwanted is what defines it.¹

Environmental Degradation

Environmental degradation refers to the deterioration of the natural environment due to the depletion of natural resources, destruction of ecosystems, and pollution. It results in a decline in the quality of air, water, soil, and biodiversity, negatively impacting the planet's ability to sustain life.

Key Features of Environmental Degradation:

- Resource Depletion:** Overuse or unsustainable exploitation of resources like water, forests, minerals, and fossil fuels.
- Ecosystem Damage:** Loss of habitats and biodiversity due to human activities like deforestation, urbanization, and industrialization.
- Pollution:** Contamination of air, water, and soil by pollutants from industries, agriculture, and urban development.
- Climate Change:** Alteration of global and regional climate patterns due to excessive greenhouse gas emissions.
- Natural Disaster Impact:** Natural events like earthquakes, floods, and wildfires, sometimes exacerbated by human activities.

¹ Test Book, <https://testbook.com>, (29th November 2024).

Causes of Environmental Degradation

Environmental degradation arises from a combination of human activities and natural events, leading to significant harm to ecosystems, biodiversity, and overall environmental health.

Human Activities:

1. **Urbanization:** The rapid growth of cities due to urban migration, especially post-Industrial Revolution, has strained natural resources like water, energy, and housing. Cities worldwide, from India to the United States, face challenges like inadequate waste management and air pollution due to unplanned urban expansion.
2. **Industrialization:** Industries contribute to environmental degradation by overexploiting natural resources and emitting pollutants like greenhouse gases and toxic chemicals. This leads to habitat destruction, climate change, and poor urban air quality.
3. **Deforestation:** Clearing forests for agriculture, urbanization, and industrial purposes disrupts ecosystems, leads to soil erosion, and contributes to global warming. It undermines biodiversity and increases the frequency of natural disasters like floods and droughts.
4. **Pollution:** Industrial and vehicular emissions release harmful substances like sulfur dioxide and nitrogen oxides into the air, while human activities contaminate water sources through sewage disposal, oil spills, and agricultural runoff. This degrades ecosystems and poses severe health risks.
5. **Agricultural Practices:** Unsustainable farming, including overuse of fertilizers and pesticides, leads to soil erosion, water contamination, and loss of aquatic life. Excessive phosphorus from fertilizers can cause algal blooms, creating dead zones in water bodies.
6. **Rising Energy Use and Transportation:** Dependence on fossil fuels for energy and transportation releases greenhouse gases, exacerbates climate change, and disrupts wildlife habitats.
7. **Landfills:** Poorly managed waste in landfills pollutes air, water, and soil, releasing

toxins and methane, a potent greenhouse gas.

Socioeconomic Factors:

1. **Poverty:** Poverty creates a cycle of resource overuse, as impoverished communities often rely heavily on natural resources for survival. This accelerates resource depletion, exacerbating environmental issues.
2. **Population Growth:** Overpopulation increases demand for resources like food, housing, and water, leading to deforestation, biodiversity loss, and environmental strain.
3. **Economic Growth:** Developing economies often prioritize industrial and agricultural expansion, leading to pollution, resource depletion, and soil degradation. Subsidies and market distortions further exacerbate these issues.

Natural Causes:

1. **Climate Change:** Rising global temperatures lead to extreme weather events, desertification, and rising sea levels. These changes impact human health, agriculture, and biodiversity.
2. **Natural Disasters:** Events like floods, droughts, earthquakes, and wildfires can devastate ecosystems, making areas uninhabitable for flora and fauna.

Legal Provisions and Case Law Related to Environmental Degradation in India

India has robust legal frameworks addressing environmental degradation, supplemented by judicial interpretations that emphasize the right to a clean and healthy environment. Key provisions and landmark judgments include:

1. Constitutional Provisions

1. **Article 21:** Right to life includes the right to a clean and healthy environment (as interpreted by the judiciary).
 - Case: *Subhash Kumar v. State of Bihar* (1991)

The Supreme Court held that the right to pollution-free air and water is a part of the fundamental right to life under Article 21.

2. **Article 48A:** Directive Principle of State Policy mandates the State to protect and improve the environment and safeguard forests and wildlife.

- Case: *MC Mehta v. Union of India* (Taj Trapezium Case, 1997)

The Court directed industries near the Taj Mahal to adopt cleaner technology to prevent environmental damage, invoking Article 48A.

3. **Article 51A(g):** Fundamental Duty of every citizen to protect and improve the natural environment.

- Case: *Rural Litigation and Entitlement Kendra v. State of UP* (Dehradun Quarrying Case, 1985)

The Supreme Court emphasized citizens' duty to protect the environment while ordering the closure of environmentally harmful limestone quarries.

2. Environmental Protection Acts

1. Environment (Protection) Act, 1986

- Provides overarching authority to the Central Government for regulating pollution, environmental conservation, and penalties for violations.
- Case: *Vellore Citizens Welfare Forum v. Union of India* (1996)

The Court introduced the *polluter pays principle* and emphasized sustainable development under the Act.

2. Water (Prevention and Control of Pollution) Act, 1974

- Aims to prevent and control water pollution by regulating industries and municipalities.
- Case: *Indian Council for Enviro-Legal Action v. Union of India* (1996)

The Court directed industries responsible for water pollution to pay compensation for environmental restoration.

3. Air (Prevention and Control of Pollution) Act, 1981

- Focuses on controlling air pollution through regulatory measures and penalties.
- Case: *MC Mehta v. Union of India* (Vehicular Pollution Case, 1998)

The Supreme Court ordered the introduction of CNG for public transport in Delhi to curb air pollution.

4. **Wildlife Protection Act, 1972**

- Protects wildlife and biodiversity by regulating hunting, poaching, and trade in wildlife products.
- Case: *Animal Welfare Board of India v. A. Nagaraja* (2014)

The Supreme Court reinforced wildlife protection and animal rights while banning Jallikattu under the Act.

5. **Forest (Conservation) Act, 1980**

- Regulates deforestation and promotes afforestation to conserve forests.
- Case: *TN Godavarman Thirumulpad v. Union of India* (1997 onwards)

This series of cases led to significant judicial intervention to prevent deforestation and regulate forest use.

3. **Judicial Principles on Environmental Protection**

1. **Public Trust Doctrine:** Natural resources are held in trust by the State for public use.

- Case: *MC Mehta v. Kamal Nath* (1997)

The Court held that rivers and natural resources cannot be privatized, applying the public trust doctrine.

2. **Polluter Pays Principle:** Polluters must bear the cost of mitigating environmental damage.

- Case: *Vellore Citizens Welfare Forum v. Union of India* (1996)

3. **Precautionary Principle:** Preventive measures must be taken to protect the environment even in the absence of full scientific certainty.

- Case: *A.P. Pollution Control Board v. MV Nayudu* (1999)

4. **Sustainable Development:** Balancing environmental protection with economic growth.

- Case: *Narmada Bachao Andolan v. Union of India* (2000)

The Court emphasized sustainable development while permitting the construction of the Sardar Sarovar Dam with specific conditions.

4. Role of National Green Tribunal (NGT)

- Established under the National Green Tribunal Act, 2010, the NGT is a specialized body to handle environmental disputes.
- Notable Case: *Almitra H. Patel v. Union of India* (2018)

The NGT addressed waste management issues in urban areas, directing strict compliance with waste disposal laws.

5. International Commitments Influencing Indian Laws

- **Stockholm Declaration (1972):** Basis for the Environment (Protection) Act, 1986.
- **Rio Declaration (1992):** Influenced principles like sustainable development and precautionary action in Indian jurisprudence.

Effects of Environment Degradation

- Reduced biodiversity.
- Soil erosion and desertification.
- Air and water quality deterioration.
- Climate instability.
- Threats to human health and livelihoods.

Consequences and Solutions

Environmental degradation has severe consequences, including health risks, loss of biodiversity, and climate instability. Addressing these issues requires sustainable practices,

stricter environmental regulations, and collaborative efforts to balance economic development with ecological conservation. Emphasizing renewable energy, sustainable agriculture, and effective waste management are critical steps toward a healthier planet.