

# EVOLUTION OF ENVIRONMENTAL LAWS AND POLICIES IN INDIA

Ashok Kumar Meena<sup>1\*</sup>, R.K. Maikhuri<sup>1</sup>

<sup>1</sup>Department of Environmental Sciences, Hemvati Nandan Bahuguna Garhwal University (A Central University), Srinagar (Garhwal), Uttarakhand, India-246174

\*Corresponding author- Ashok Kumar Meena (ashokenviro.hnbgu@gmail.com)

## Abstract

Environmental science is a multidisciplinary field that has grown substantially in India during the past several decades. Research and policy endeavors in this field have been driven by the region's abundant biodiversity and challenging environmental issues. The 1970s saw the beginning of environmental science in India with the establishment of institutions like the National Environmental Engineering Research Institute (NEERI) and the Indian Council for Forestry Research and Education (ICFRE) as a result of worries about pollution and deforestation. The National Biodiversity Act and the Ministry of Environment and Forests were established as a consequence of the shift in emphasis towards sustainable development and conservation in the 1980s and 1990s. Recent years have seen a rise in awareness about climate change, leading to programmes like the National Action Plan on Climate Change and the creation of the Indian Network on Climate Change Assessment. Urban ecology, environmental health, and ecosystem services are now part of India's environmental science research agenda. Despite these developments, local governments still face challenges in executing regulations and resolving environmental issues. A complex interaction of scientific, political, and social variables has shaped the evolution of environmental science in India, and continued investment in research and policy innovation will decide its future course.

**Keywords:** Environment science, evolution, Climate Change, Policies, India.

## INTRODUCTION:

The idea of environmental conservation has been embedded in Indian culture from the dawn of time. It is vital to look into the history of environmental protection in India in order to understand the present legislative regulations for environmental protection and resource conservation. Due to India's long history of environmental preservation, its people have been motivated to adore and appreciate nature in all forms. There are numerous allusions to trees, water, animals, and land in ancient Indian writings. Indian texts such as the Ramayana, Mahabharata, Vedas, Arthashastra, Sathapatha Bhramanas, Manusmriti, etc. enable us to understand the concepts of environment conservation and maintaining forest ecology; also hymns in the four Vedas, Rigveda, Yajurveda, Samaveda, and Atharvaveda, reveal full cognizance of the undesirable effects of climate change, distortion in ecological balance, and environmental degradation; and appropriately caution against them. But in an effort to discover an appropriate answer, mankind on earth has progressively tackled the environmental issues plaguing society out of concern for the health of the organic world (Barua, 2020).

The pre-Vedic Indian Valley Civilization, which flourished in northern India around 5,000 years ago, may have been aware of the surroundings. This finding is supported by archaeological evidence from the civilization's two most important cities, Mohenjo-Daro and Harappa. Their well-ventilated dwellings, clean streets, large number of wells, toilets, and public baths, as well as their covered subterranean drains, all speak to their understanding of cleanliness and sanitation. (2006) Sharma.

History of evolution environment conservation and management in India can be divided into following categories:

- A. In ancient India
- B. In medieval India
- C. In British India
- D. In post- independence India

**A. In ancient India:** Environmental awareness existed in ancient India, even during the prevedic Indian valley Civilization, which peaked some 5,000 years ago in northern India. This finding is supported by archaeological evidence from the civilization's two most important cities, Mohenjo-Daro and Harappa. Their well-ventilated dwellings, clean streets, large number of wells, bathrooms, public baths, and covered underground drains all reflect their concern for cleanliness and sanitation. Vedic civilization, which existed between 1500 and 500 B.C., placed a high value on cleanliness and the environment. A medical science document called the Charak Samhita, which was composed between 900 and 600 B.C., contains a number of instructions for water purification. Environmental ethics of nature conservation applied to both rulers and kings under the Arthashastra (an ancient

text on statecraft, economic policy, and military strategy), where various punishments were prescribed for cutting down trees, destroying forests, and killing animals (Sharma, 2006; Avari, 2016).

**B. In medieval India:** In mediaeval India, woodlands served only as hunting grounds for the Mughal emperors. Muslim rulers have dominated mediaeval India's history, and environmental legislation did not evolve significantly until the rule of the Mughal Emperor Akbar. Shikar and hunting are off limits to non-rulers during Akbar's reign. The protection of the environment and the preservation of natural resources were not a top priority for the government throughout the Middle Ages since they were more focused on war, the propagation of religion, and the growth of their empires. There were no limits on cutting other trees, hunting animals, etc., with the exception of "royal trees" which could not be removed without payment. The size of the woodlands significantly decreased over this time. (Akash, 2019).

**C. In British India:**

- The Shore Nuisance (Bombay and Kolaba) Act of 1853 limited the contamination of seawater.
- The Merchant Shipping Act of 1858 addressed the prevention of oil-related marine contamination.
- The Fisheries Act, 1897
- The Bengal Smoke Nuisance Act of 1905
- Bombay Smoke Nuisance Act of 1912
- Wild Birds and Animals Protection Act, 1912

**D. In post- independence India:** In India after independence: There was no formal environmental policy in place during the early years of independence, and there were few attempts to create a policy or law for the protection of the environment. However, the national planning procedure and forest strategy took environmental preservation into account. Environmentalism is not a static idea; rather, it changes with time as a result of its environment. This relates to how Indian environmentalism has changed and evolved throughout time. Since India's independence, the legal system has rapidly changed in response to the country's growing environmental needs and concerns. Since the advent of modern environmental laws in India after 1972 (Stockholm's) and the mediaeval, British, and even ancient environmental laws like Buddhism and Jainism, the legislature and even the Indian judiciary have demonstrated a great sense of concern for the environment through significant rulings.

In 1985, an Indian lawyer named M. C. brought about a change in environmental legislation in the country. The implications of this decision are significant: Every Indian citizen now has the right to petition the Supreme Court of India or a State High Court for the enforcement of India's environmental laws. Mehta persuaded India's Supreme Court that Article 21 of the Indian Constitution, which guarantees every citizen the "right to life," necessarily includes the "right to a healthy environment." M.C. Mehta has obtained multiple Supreme Court decisions on behalf of Indian residents to protect the nation's natural resources and cultural legacy, achieving remarkable achievement in protecting the environment and public health in India. M.C. just achieved success. petitioned the Indian Supreme Court to put a 1991 ruling requiring environmental studies at all levels of education into effect. In accordance with a court order from December 2003, green curriculum must be taught in all 28 of India's states. In 1991, M.C. to carry out individuals' constitutionally required duty to "protect and improve the natural environment," the government secured the initial Supreme Court ruling requiring mandatory environmental education (Baviskar, 2012).

Major initiatives taken by India for the conservation and management of environment:

S.No.	Name of Initiative	Year	Description
1.	Stockholm Declaration	1972	❖ It brought the border viewpoint of environmental preservation to the Indian government's notice. Comprehensive (special) environmental legislation was passed by the Indian Central Government (Gupta, 2022).
2.	National Council for Environmental Policy and Planning was set up (later evolved into Ministry of Environment and Forests (MoEF) in 1985.)	1972	❖ NCEP was established as a result of the realisation that the development process needed to place a stronger emphasis on environmental considerations (Pal, 1979).
3.	The Wildlife (Protection) Act	1972	❖ Enacted with the intention of safeguarding the nation's wildlife and policing poaching, smuggling, and illicit trading in wildlife and its byproducts. ❖ In order to enforce more severe penalties and punishments for infractions, the legislation was revised in January 2003.

			<ul style="list-style-type: none"> <li>❖ The goal is to preserve biologically important places and endangered plant and animal species (Ramesh, 1999).</li> <li>❖ It is divided into six schedules, each of which offers a different level of protection. Schedule I and portion II of Schedule offer complete protection, and breaches of these schedules are subject to the severe sanctions. Schedules III and IV species are likewise protected, although the consequences are far less severe. Common crows, fruit bats, rats, and mice are among the Schedule V animals that are regarded as pests by the law and are therefore subject to unrestricted pursuit. The indigenous plants listed in Schedule VI may not be grown or planted.</li> </ul>
4.	The Water (Prevention and Control of Pollution) Act	1974	<ul style="list-style-type: none"> <li>❖ The United States' water quality was to be preserved or restored, and it was adopted to prevent and regulate water contamination</li> <li>❖ In order to allow for the imposition of taxes on water used for certain industrial uses, the Water (Prevention and Control of Pollution) Cess Act was passed in 1977 (Bakshi, 1993).</li> </ul>
5.	The Forest (Conservation) Act	1980	<ul style="list-style-type: none"> <li>❖ The Act's main goal is to conserve forests, their flora, animals, and other various biological elements while maintaining the integrity and territory of the forest.</li> <li>❖ The de-reservation of forests and the use of forest land for non-forest activities without the approval of the Central Government are both prohibited and regulated (Pawar, K. V., &amp; Rothkar, R., 2015).</li> </ul>
6.	The Air (Prevention and Control of Pollution) Act	1981	<ul style="list-style-type: none"> <li>❖ The Act seeks to prevent, control, and reduce air pollution. It establishes committees at the federal and state levels to enforce the law.</li> <li>❖ The Central Pollution Control Board (CPCB) and the State Pollution Control Board (SPCB) were given responsibility for it.</li> </ul>
7.	The Environment (Protection) Act	1986	<ul style="list-style-type: none"> <li>❖ The Act was passed in order to safeguard and improve the environment. The Act is one of the most extensive laws passed under the pretence of preserving and improving the environment.</li> <li>❖ In line with Article 253 of the Indian Constitution, which permits the introduction of laws to carry out international accords, the EPA Act was passed.</li> </ul>
8.	The Public Liability Insurance Act	1991 (Amended in 1992)	<ul style="list-style-type: none"> <li>❖ To give public liability insurance to anyone involved in unintended disasters when handling hazardous materials, the Public Liability Insurance Act and Rules, 1991 and Amendment, 1992 were adopted (Agarwal, 2005).</li> </ul>
9.	The National Environmental Tribunal Act	1995 (Amended in 2010)	<ul style="list-style-type: none"> <li>❖ The Act aims to offer compensation for harm done to people, property, and the environment as a result of operations involving hazardous substances.</li> </ul>
10.	The National Environment Appellate Authority Act	1997	<ul style="list-style-type: none"> <li>❖ For the purpose of hearing appeals relating to limitations on areas where the Environmental Protection Act mandates certain precautions for companies, etc., the National Environmental Appellate Authority Act of 1997 was adopted.</li> </ul>
11.	The Biomedical Waste (Management and Handling) Rules	1998	<ul style="list-style-type: none"> <li>❖ Any waste produced while diagnosing, treating, or immunising people or animals, conducting relevant research, or creating or testing biological waste is referred to as biomedical waste.</li> <li>❖ The disposal, collection, and grouping of hospital waste are simplified by the Biomedical Waste (Management and Handling) Rules, 1998.</li> </ul>

12.	The Environment (Siting for Industrial Projects) Rules	1999	❖ The Environment (Siting for Industrial Projects) Rules, 1999 provide specifics on the areas to avoid when building industrial plants, the safety measures to be taken when choosing a site, and the environmental protection factors to be taken into account when carrying out industrial development projects.
13.	The Municipal Solid Wastes (Management and Handling) Rules	2000	❖ All local authorities must abide by these rules. They are responsible for making sure that the solid waste produced by the municipality or city is gathered, sorted, transported, processed, and disposed of in line with all relevant laws and regulations.
14.	Noise Pollution (Regulation and Control) Rules	2000 (Amended in 2010)	❖ In accordance with these laws, loudspeakers or public address systems may be used for cultural or religious activities that take place at night (between 10:00 p.m. and midnight) in order to prevent noise pollution (CPCB, 2011).
15.	The Ozone-Depleting Substances (regulation and control) rules	2000	❖ These regulations forbid the use of CFCs, halons, ODSs including methyl chloroform and carbon tetrachloride, and SFCs except from metered-dose inhalers and other medical applications
16.	The Energy Conservation Act	2001	❖ It was used in an effort to boost energy effectiveness and cut waste. It contains requirements for equipment and appliance energy usage.  ❖ It establishes guidelines and benchmarks for consumer energy use. It specifies building regulations for commercial buildings that are energy efficient.
17.	The Batteries (Management and Handling) Rules	2001	❖ The Batteries (Management and Handling) Rules, 2001, the final rule governing the collecting and recycling of all spent lead-acid batteries in India, were published on May 16 by the Ministry of Environment and Forests (MoEF).  ❖ The Environment (Protection) Act of 1986, which is applicable across India, regulates battery management. India must take the required measures to stop battery trash from poisoning our air, water, and soil since it has grown to be a worldwide issue.
18.	The Biological Diversity Act	2002	❖ The National Biodiversity Authority (NBA), State Biodiversity Boards (SBBS), and Biodiversity Management Committees (BMCS) are three of the three tiers of the three-tiered structure created by the Biological Diversity Act of 2002 to implement the Convention on Biological Diversity (CBD), combat biopiracy, protect biological diversity, and local growers.  ❖ It aims to preserve biological resources, regulate their sustainable use, and allow the fair and equitable transfer of benefits from their usage and knowledge among local people. The law's claimed goals include safeguarding traditional knowledge, preventing biopiracy, banning patent applications made without official consent, and more.
19.	Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act (FRA)	2006	❖ The Forest Dwelling Scheduled Tribes (FDSTs) and Other Traditional Forest Dwellers (OTFDs), who have lived in such woods for many generations, are granted forest rights and occupation of forest areas under the Act.  ❖ The Act specifies the duties and powers related to the sustainable use of FDST and OTFD, the

			<p>preservation of biodiversity, and the maintenance of ecological balance. The Department of Tribal Affairs is in responsibility of enforcing the legislation. While ensuring food and livelihood security for FDST and OTFD, it strengthens forest protection systems (PAs, P. A., 2007).</p> <ul style="list-style-type: none"> <li>❖ It aims to address the FDST and OTFD colonial injustices, which are crucial to the survival and viability of forest ecosystems. The four types of rights recognised by law are: <ul style="list-style-type: none"> <li>i. Title rights: It gives the FDST and OTFD the ability to own ownership of up to 4 hectares of land that is farmed by tribes or forest dwellers. Land ownership does not include any more land; it is restricted to the land farmed by the relevant family.</li> <li>ii. Right to use: Dweller rights include the right to use, among other things, pastures, grazing routes, and the exploitation of minor forest products.</li> <li>iii. The right to manage all community forest resources in a way that is compatible with their customary preservation and protection for long-term usage falls under the category of forest management rights.</li> <li>iv. Rights to relief and development are constrained in order to conserve forests.</li> </ul> </li> </ul>
20.	National Green Tribunal Act (NGT)	2010	<ul style="list-style-type: none"> <li>❖ In order to offer legal and administrative remedies for victims of pollution and other environmental damage, it was founded in 1992 in connection with the Rio Summit.</li> <li>❖ Article 21 of the constitution, which guarantees its residents the right to a healthy environment, is also met by this.</li> <li>❖ Within six months of their appeals, the NGT must rule on matters that have been submitted to it. When there are significant environmental problems, the NGT has initial jurisdiction.</li> </ul>
21.	Hazardous Wastes Management Regulations	2016	<ul style="list-style-type: none"> <li>❖ To improve the country's execution of ecologically sound hazardous waste management, the Ministry of Environment, Forests, and Climate Change modified the Hazardous and Other Wastes (Management &amp; Transboundary Movement) Rules, 2016.</li> <li>❖ "Hazardous waste" is any waste that, whether alone or in combination with other wastes or chemicals, endangers or is likely to endanger human health or the environment owing to any of its physical, chemical, reactive, poisonous, combustible, explosive, or corrosive features.</li> </ul>
22.	Compensatory Afforestation Fund (CAF) Act	2016	<ul style="list-style-type: none"> <li>❖ By ensuring that the funds are delivered and used promptly, effectively, and openly through a clearly defined institutional process, the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) Act aims to reduce the negative effects of transferring forest land for non-forest uses. The Centre, the States, and the Union Territories are all subject to the CAMPA statute. 90% of the CAF monies must be</li> </ul>

			<p>disbursed to the states in accordance with the legislation, while 10% must be kept by the federal government.</p> <ul style="list-style-type: none"> <li>❖ The money can be used for a variety of projects, including the management of catchment areas, assisted natural generation, forest management, wildlife protection and management, the relocating of villages from protected areas, the management of conflicts between people and wildlife, training and awareness-raising, the provision of wood-saving equipment, and similar endeavours.</li> </ul>
23.	Coastal Regulation Zone Notification	2018	<ul style="list-style-type: none"> <li>❖ It was announced in accordance with the Shailesh Nayak Committee's proposal. This legislation emphasises natural calamities like the rise in sea level brought on by global warming while simultaneously promoting sustainable development. Additionally, it safeguards the welfare of nearby residents, notably fishers, while preserving wildlife.</li> <li>❖ Four regulatory zones make up the Coastal Regulation Zone (CRZ): <ul style="list-style-type: none"> <li>i. With the exception of nuclear power plants and defence operations, development is prohibited in environmentally fragile zones, or CRZ-I.</li> <li>ii. CRZ-II: comprises of defined, highly populated urban regions. On the shoreward side, only building operations are authorised.</li> <li>iii. CRZ-III: consists mostly of remote, undeveloped areas. Only the upkeep and restoration of already-existing structures are allowed in this area. However, constructing a home is allowed between 200 and 500 metres from the high tide line.</li> <li>iv. The Low Tide Line and 12 nautical miles offshore are included in CRZ-IV. This zone will control all activities that have an impact on the sea and tidal water, with the exception of fishing and allied activities.</li> </ul> </li> </ul>
24.	The Wildlife (Protection) Amendment Bill	2021	<ul style="list-style-type: none"> <li>❖ The Ministry of Environment, Forestry, and Climate Change presented it before the Lok Sabha. This measure aims to implement the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and increase the number of species that are legally protected.</li> </ul>

### CONCLUSION:

In conclusion, India's journey towards developing environmental laws and regulations has been filled with both high points and low points. The nation has established several environmental laws and regulations throughout the years as a consequence of realizing how important it is to maintain its environment and natural resources. The Water (Prevention and Control of Pollution) Act, the Air (Prevention and Control of Pollution) Act, and the Wildlife Protection Act were all passed after the Water (Prevention and Control of Pollution) Act in 1972. This legislation laid the groundwork for environmental preservation by concentrating on particular issues like wildlife conservation, water pollution, and air pollution management.

But the Bhopal gas tragedy in 1984 gave the Indian authorities cause for concern. This catastrophe highlighted the need for more thorough environmental regulations, which led to the Environmental Protection Act's passage in 1986. To monitor and control pollution levels, this legislation established the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCB). In the years that followed, the Indian judiciary rendered a series of significant judgements that played a crucial role in shaping environmental laws and regulations. The

Indian Supreme Court has underlined the need of sustainable development and the preservation of natural resources in a number of its judgements. Due to these choices, laws like the National Forest Policy in 1988 and the National Environment Policy in 2006 were created.

India has also taken steps to promote global environmental cooperation. The United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement are two of the international agreements and protocols that the country has ratified. India's willingness to solve global environmental concerns and support sustainable development is seen in these agreements.

Despite these successes, India still has several challenges in putting its environmental laws and policies into practice and enforcing them. Effective environmental governance is nevertheless hampered by weak enforcement measures, a lack of public knowledge, and the need for better agency collaboration. The nation also faces particular challenges as a result of its substantial population, rising urbanization, and industrial growth.

In order to address these challenges, India must concentrate on bolstering its institutional structures, raising public engagement levels, and encouraging sustainable practises. Effective implementation and enforcement of environmental laws and regulations at all levels is crucial. To handle new environmental issues, it is also vital to continuously monitor, assess, and revise current legislation.

In conclusion, India's commitment to protecting its environment and natural resources is demonstrated by the creation of environmental laws and regulations in the country. Even while there has been progress, there is still a long way to go before we can achieve sustainable growth and successfully solve environmental problems. India may strive for a greener and more sustainable future by reflecting on the past, cooperating with other nations, and implementing novel ideas.

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