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Environmental Pollution Control Laws and Policies in India: An Overview

Bhupinder Singh[1*], Anuradha[2]
[1]Bhagat Phool Singh Mahila Vishwavidyalaya.
Khanpur Kalan, Sonepat, Haryana (India) Pin- 131305
[2]Institute of Environmental Studies, Kurukshetra University
Kurukshetra, Haryana-136119, India
*Email Id: bhupindersinghmehta@gmail.com
dr.bhupender@bpswomenuniversity.ac.in

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Abstract

Urban and rural regions have various causes of pollution which may be differ from place to place and depend on geography and development activity. The various anthropogenic activities include excessive industrialization, resource exploitation, and over consumption of natural resources. Resources and the ever-increasing population are the main causes of pollution. In the review that is being presented, several areas of pollution and control legislation in India are discussed, with a focus on the history, current situation, international treaties, gaps, and short comings. The examination also includes legislative restrictions and court responses to important rulings concerning air pollution. The drawbacks associated with the process for enforcing environmental legislation for air pollution management have been noted.

1.Introduction

India (one of the largest democratic countries) was the first country which makes amendments to its constitution for the people to conserve and develop the environment in order to preserve public health, forests, and wildlife. In the Indian constitution articles 39, 42, 47, 48, and 49 were dealt inadvertently with the issue of environmental pollution and protection. In 1972,The Stockholm International Conference on Human Environment was held which was responsible for the adoption of the 42nd constitutional amendment in the Indian constitution, this took effect on January 3rd, 1977.The Indian Constitution's Directive Principles of State Policy (Article 48-A) 38 and Fundamental Duties (Article 51-Ag) 39 specifically stated air quality and protecting the environment. The right to clean air has now been recognized by the courts as a component of the right to life under Article21 of the Constitution.

Water pollution has also significantly worsened across the nation in recent years. A person has the right to get clean water. The state must also provide its citizens with access to safe water. The Indian Constitution's Chapter-III of Fundamental Rights does not specifically address the right to clean water. However, Article 21 of the Indian Constitution now includes this right to clean and sufficient water as a result of the judiciary's action in India. The Directive Principles of State Policy's (Article47) language compels the state to pursue improvements to the contaminated environment in addition to taking a protectionist position.

According to the 1992 Policy Statement for the Modification of Pollution, it is the government’s goal to include environmental factors in all levels of decision-making.

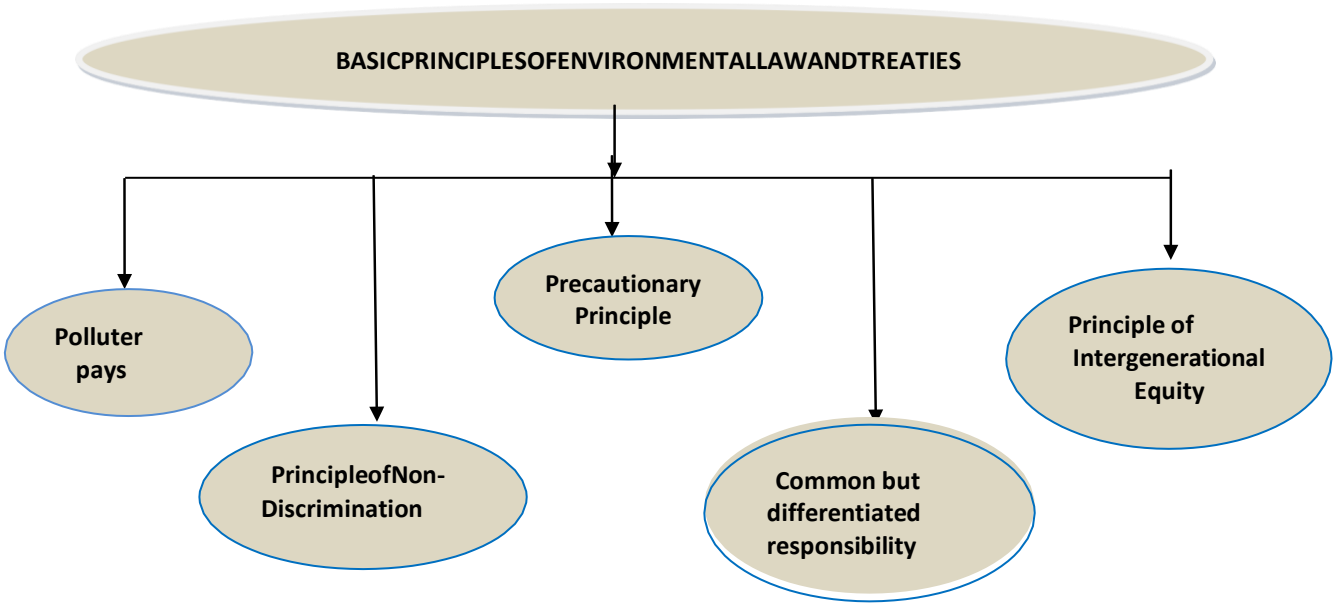

Fig.1: five basic principles of environmental laws and treaties (Kulkarni and Ramchandra, 2009).

2. India's legislative history:

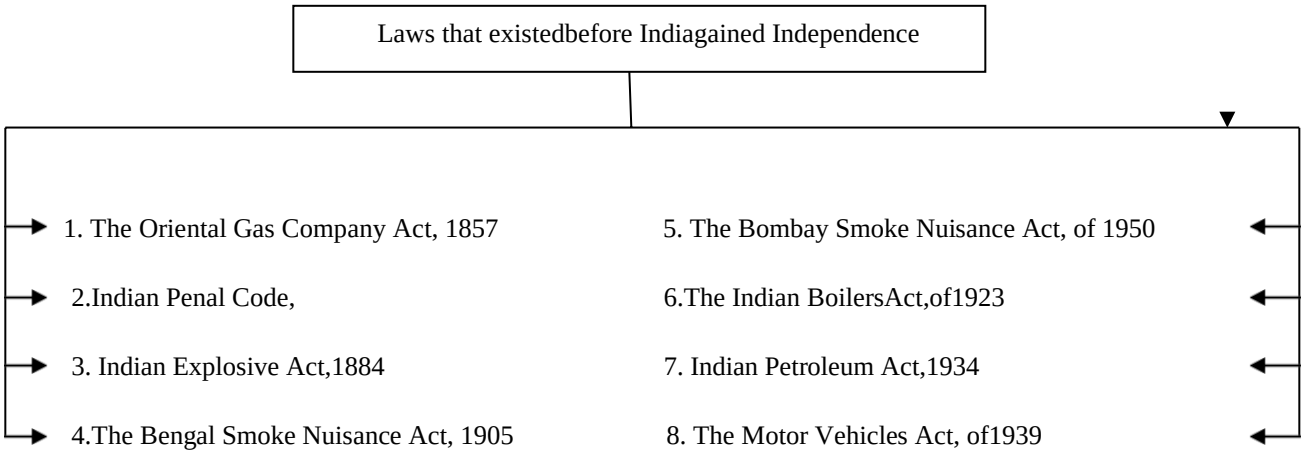

Fig2: Some laws for environment protection before independence of the India (1800-1940)

Source: (https://iasscore.in/bharat-katha/evolution-of-environmental-laws-of-India).

3. Present Scenario

3.1. ***The Factories Act (1948)*** - This is India's first indirect action against air pollution since becoming independent. Chapter III of this Act's, Sections 13, 14, and 15,addresses proper ventilation, fumes, dust, and humidity for the welfare of workers.

3.2. ***The Industrial (Development and Regulation) Act 1957***- This was the first lawgiving the federal government the authority to order investigations into industrial undertakings or scheduled industries. The scope was restricted

to the preservation of any resources of national significance used in the sector as well as the control of output and industrial growth.

3.3. ***Mines Act of 1952-*** Once more, the consideration of air pollution was restricted to ventilation, safeguards against spontaneous combustion, underground fire, and coal dust, and actions to be taken in the event of a dust fire or release of combustible or toxic gases.

3.4. ***The Inflammable Substances (1952) Act-***Through safety, the action indirectly increased air pollution. The act's sole objective was to regularize some compounds with the Petroleum Act and deem them to be dangerously flammable.

3.5. ***The Atomic Energy (1962) Act*** - With the only objective of controlling atomic energy and radioactive chemicals, the legislation only addressed the health effects and safety from radioactive substances.

3.6. ***The Air (Prevention and Control of Pollution) Act of 1981***- Section 6 This is the first law created specifically to address the prevention, control, and mitigation of air pollution. It was created to serve the purposes of boards, which include granting anddelegatingauthoritytothemovertherelevantissues.AttheUnitedNationsConference on the Human Environment, which took place in Stockholm in June 1972and was attended by India, decisions were made to implement appropriate measures for the preservation of the earth's natural resources, including, among other things, the maintenance of air quality and the management of air pollution (CPCB, 2010).

3.7. ***The Environmental Protection (1986) Act*** -On May 23, 1986, this law went into effect to address issues related to environmental protection, improvement, and related things. Numerous more laws and norms are encapsulated under this legislation. For instance, the1995 notification on lead-free gasoline and catalytic converters for automobiles in major cities (CPCB, 2010).

3.8. ***Motor Vehicle (1988)*****Act**-This law defines vehicle emission regulations and controls automobile emissions.

3.9. ***Ozone-Depleting Compounds (Regulation and Control) 2000***- The production and consumption of ozone-depleting substances fall under the purview of Article5 paragraph 1 of the Montreal Protocol Regulation. This law addresses the ban on new ozone-depleting investments, the regulation of the import, export, and sale of items created with or containing ozone-depleting compounds, as well as monitoring and reporting requirements for the same. The MoEF established the Ozone Cell, whichhas been tasked with handling all tasks associated with the phase-out of ozone-depleting compounds.

3.10. ***Municipal Solid Waste (Management and Handling) 2000 Rule*** -- Including the installation of a landfill gas management system, ambient air quality monitoring has been made required at dump sites (CPCB, 2010).

3.11. ***The Noise Pollution (Regulation and Control) Rules, 2000***- Classify ambient air quality limits for noise according to location (land use) and time (day or night) (CPCB, 2010).

3.12. ***The Energy Conservation Act, 2001***-It turned into enacted as a step toward enhancing power performance and lowering wastage. It specifies the power intake requirements for device and appliances. It prescribes power consumptions norms and requirements for consumers. It prescribes power conservation constructing codes for industrial buildings. Bureau of power performance (BEE) is a statutory frame setup below the act.

3.13. ***Batteries (Management &Handling) Rules, 2001-***manage and handle lead acid battery trash in an appropriate and efficient manner. The act mandates that the Batteries (Management & Handling) Rules, 2001be followed by all producers, assemblers, reconditions,importers,dealers,auctioneers,bulkconsumers,and consumers who are involved in the production, processing, sale, purchase, and use of batteries or components thereof https://www.clearias.com/environmental-laws-india/#5-the-energy-conservation-act-2001.

3.14. **Biological Diversity Act, 2002**-It was put into place to make the CBD and Nagoya Protocol effective. Through a three-tiered framework of central, state, and local boards and committees, to prevent bio piracy, safeguard biological variety, and assist local growers. To establish Biodiversity Management Committees (BMC), State Biodiversity Boards(SBBS),and the National Biodiversity Authority (NBA) (BMCS) https://www.clearias.com/environmental-laws-india/#5-the-energy-conservation-act-2001).

3.15. **Hazardous Waste (Management, Handling and Tran-boundary) Rules, 2008**-The regulation produced a manual for the manufacture, importation, storage, and management of hazardous substances and trash https://www.clearias.com/environmental-laws-india/#5-the-energy-conservation-act-2001).

3.16. ***The National Green Tribunal Act, 2010-***It was created in conjunction with the 1992Rio Summit to offer judicial and administrative remedies for those who have suffered from pollutants and other environmental harm.

Additionally,It supports the constitutional right of its inhabitants to a healthy environment as stated in article 21.Within six months of receiving the appeals; the NGT must decide the matters that have been submitted to it. The NGT has initial jurisdiction over issues involving important environmental challenges. The NGT handles civil claims arising out of the seven environmental laws (www.clearias.com/environmental-laws-india/#5-the-energy-conservation-act-2001).

3.17. ***Regulation of Polychlorinated Biphenyls(PCBs) Order, 2016***- According to the rule, Equipment polluted with polychlorinated biphenyls may not be imported, exported, or traded unless it complies with the 2008 Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules. By the end of 2025, all forms of polychlorinated biphenyl use will be totally outlawed (www.indiaenvironmentportal.org.in/content/427632/notification-on-regulation-of-polychlorinated-biphenylspcbs-order-2016).

3.18. ***Wetland Conservation & Management Rules, 2017***- The 2017 Wetlands (Conservation and Management) Rules have improved the management of wetlands by shifting the responsibility from a central authority to state entities. The regulations outline the National Wetland Committee's advisory duty, which includes reviewing the progress of integrated management of Ramsar Convention areas and advising state agencies on wetlands' integrated management based on the principle of sensible use (Pollution Control Law Series, 2021. https://cpcb.nic.in/7thEdition.pdf).

3.19. ***Regulation of persistent Organic Pollutants Rules, 2018***- The Ministry of Environment, Forest and Climate Change (MoEFCC) announced the "Regulation of Persistent Organic Pollutants Rules"in 2018in accordance with the provisions of the Environment (Protection) Act, 1986, in light of its commitment to ensuring a secure environment and addressing risks to human health. The law forbids, among other things, the production, commerce, use, import, and export of seven compounds, namely chlordecone, hexabromobiphenyl, hexabromodiphenyl ether, tetrabromodiphenyl ether, pentabromodiphenyl ether, hexachlorobenzene, hexabromocyclododecane, and hexachloro (Pollution Control Law Series, 2021. https://cpcb.nic.in/7thEdition.pdf).

4. Laws and policies related to reducing or controlling water pollution

4.1. ***Water (Prevention and Control of Pollution), Act 1974*** Parliament passed the Act by Article 252 of the Constitution. Except for Maharashtra and Orissa(which have separate statutes on the subject enacted previously), the Act now applies to all major states and Union Territories. Only Tripura, one of the five small states in the country's north-eastern region, has adopted the Act. The Act creates a Central Board for Water Pollution Prevention and Control, as well as similar boards in each state (herein after known as the Central Board or the State Board). These boards have the authority to control pollution primarily through the establishment of standards and the issuance of consent orders. The Act provides harsh penalties for violating the standards or consent order, including imprisonment for not less than six months but up to six years, and a fine. to prevent and manage water pollution and to maintain or restore the country's water wholesomeness, the Water (Prevention and Control of Pollution) Act was passedin1974.In 1988, the Act was modified (https://cpcb.nic.in/water-pollution).

4.2. ***Water (Prevention and Control of Pollution) Cess Act, 1977***To provide for the levying and collection of a cess on water consumed by people operating and carrying out specific types of industrial operations, the Water (Prevention and Control of Pollution) Cess Act was passed in 1977 (https://en.wikipedia.org/wiki/Indian_water_policy).

4.3. ***National Water Policy 2002*** the following are the key elements of the 2002 National Water Policy: Water is a valuable natural resource, a necessity for all living things, and a priceless national treasure. Water resource development, planning, and management must be regulated by national viewpoints. Through rules and subsidies, the policy promotes the recycling and treatment of industrial waste water as well as the adoption of new, water-saving technologies. The policy also addresses issues including erosion, water zoning, water quality, and water conservation (Murty, 2003).

4.4. ***National Water Policy 2012*** The primary goal of the National Water Policy 2012,according to the ministry, is to treat water as an economic good in order to encourage its efficient use and conservation (https://mpcb.gov.in/miscellaneous-topics-information/cess/cessdetails).

5. Some International Conventions/Treaties related to the Environment

5.1. Montreal Protocol on Ozone Depleting Substances1985 (Signed on June 19, 1992, by India) The World Plan of Action on the Ozone Layer, which was completed by the United Nations Environment Programme (UNEP) in 1977, called for intensive global research and monitoring of the ozone layer. In 1981, the UNEP Governing Council gave UNEP permission to draft a global framework convention on stratospheric ozone protection. A framework agreement known as the Vienna Convention was reached in1985.It calls for States to cooperate in pertinent research and scientific assessments of the ozone problem, exchange information, and implement "appropriate remedies." This protocol works to control the production and consumption of those specific compounds, which do not occur naturally. As a result of this protocol The Ozone Depleting Substances (Regulation and Control) Rules, 2000 were created in India and categorized 95 ozone-depleting substances in groups with their potential of ozone depletion.

5.2. Helsinki Convention no the Limitation of the Emission Of Sulphur Dioxide or its trans boundary fluxes 1986 In response to the need to reduce sulfur emissions, a Protocol to the Convention on Long-Range Trans boundary Air Pollution requiring a reduction of sulfur emissions/their trans boundary fluxes by at least 30% became effective in 1987. This Protocol, which seeks to reduce one of the primary air pollutants, has 21ECE nations as Parties. The 1985 Sulphur Protocol's target year of 1993 has been met by all Parties, according to that Protocol.

5.3. Sofia Protocol to Control Nitrogen Oxide Emissions or Their Transboundary Fluxes1988 The Protocol for the Control of Nitrogen Oxide Emissions or their Trans boundary Fluxes was adopted in Sofia in1988.(Bulgaria). For this Protocol, freezing nitrogen oxide emissions or their trans boundary fluxes was a prerequisite. 1987 served as the common reference year. As of 1987 (or, in the case of the United States, 1978), the 1988NOx Protocol's target has been met by 19of the Protocol's25 Parties. An effects-based had to be used for the NOx Protocol's second step. A new tool being developed will use the multi-pollutant, multi-effect critical load method to further reduce the emissions of nitrogen compounds, including ammonia, and volatile organic compounds. By address in gall key emission sources, consideration should be given to their contribution to eutrophication, acidification, and photochemical pollution as well as their consequences on materials, the environment, and human health.

5.4. Geneva Protocol, 1991 Control of Emission of Volatile Organic Compounds (VOCs) or their Trans-boundary Fluxes- The Protocol to the Convention on Long-Range Transboundary Air Pollution on the Control of Volatile Organic Compounds (VOCs, or hydrocarbons) Emissions or their Transboundary Fluxes, the Second Major Air Pollutant Responsible for the Formation of Ground Level Ozone, was Adopted in November 1991.On September29,1997, it became operative. Three choices for emission reduction targets are listed in this Protocol and must be chosen upon signing or ratifying it.

A) A decrease of 30% in VOC emissions by 1999, utilizing the years 1984 through 1990 as a base.

B) The same decrease as for (i) within a Tropospheric Ozone Management Area (TOMA) designated in Annex I to the Protocol and making sure that by 1999, total country emissions do not surpass 1988 levels.

C) Finally, Parties may choose to stabilize emissions at that level by 1999 if emissions in1988did not exceed certain stipulated levels.

5.5. United Nations Framework Convention on Climate Change, 1992 *(Signed on November 1st, 1993 by India.* A worldwide environmental treaty known as UNFCCC was discussed during the "Earth Summit," it run from 3rd June to 14th June, 1992 in Rio de Janeiro. "Stabilize greenhouse gas concentrations in the atmosphere at a level that would preclude dangerous anthropogenic interaction with the climate system," according to the treaty's stated goal. It was made available for signature on May 9th, 1992, and went into effect on March 21st 1994.TheUNFCCC has 192 parties as of 2014.

5.6. Kyoto Protocol to the United Nations Framework Convention on Climate Change 1997 **(**India signed in 1997)In a decision known as the Berlin Mandate, made at COP 1(Berlin, March/April 1995), Parties addressed greater and more specific commitments for developed nations. The Kyoto Protocol was adopted on December 11, 1997, in Kyoto, Japan, following two and a half years of protracted talks. It went into effect on February16, 2005. The Protocol imposes a burden on developed countries on the concept of" common but differentiated responsibilities" in recognition of the fact that developed countries are primarily responsible for the atmosphere's current high GHG's emission is a result of industrial activity. It's first its initial commitment period was from 2008 to2012. India ranked second among the 74 countries as of April 2012 with more than

4000projects registered under the Clean Development Mechanism. India profited from technological transfer and greater resources. India was allowed to pursue cleantechnology projects with outside funding because of the Kyoto Protocol, which supported the country's top priorities for sustainable development (United Nations Climate Change Secretariat, 2012).

5.7. Basel Convention1989 (Signed on March15, 1990, by India) The agreement was created to lessen the flow of hazardous waste between countries, particularly from developed to less developed ones and therefore indirectly contributes to the problem of air pollution. This agreement aims to (i) reduce the production of toxic waste, (ii) assure environmentally friendly waste management as close as possible to the source, and (iii) provide waste management assistance to less developed nations

5.8. Stockholm Convention on Persistent Organic Pollutants (*POPs) (India Signed on14May 2002*) The Stockholm Convention is an international agreement to regulate and curtail the use of POPs to safeguard both the environment and human health. POPs are hazardous compounds that build up in the fatty tissue of living things and are released into the environment over an extended period. Governments are taking steps to stop or scale back the discharge of POPs into the environment as part of the Convention's implementation.

5.9. Lima Climate Change Conference UNFCCC, COP20— *December 2014* Invites Least Developed Country Parties and Developing Country Parties to communicate the outcomes and process of formulation along with the execution of the National Adaptation Plan on Climate Change. This is the conference's major outcome. The national adaptation plan process is country-driven, gender-sensitive, participative, and completely transparent, as reiterated by COP 20. The finest available research, as well as, when appropriate, traditional and indigenous knowledge, should be the foundation for and the driving force behind its consideration of vulnerable groups, communities, and ecosystems. Where applicable, parties shall consider incorporating adaptation into pertinent social, economic, and environmental policies and practices (UNFCCC, 2014). In 2008, the Government of India released a National Action Plan for Climate Change with eight National Missions in response to the UNFCCC's multilateral climate change negotiations (National Action Plan on Climate Change, 2008).

6. Conclusion

This paper suggests the new ways to make international law for the conservation of environment for sustainable development which is the goal of central and state govt, which full fill the Aichi biodiversity targets. The existing methods are slow, expensive, uncoordinated and uncertain. Something better must be found if the environmental challenges the world faces are to be dealt with successfully. Environment and Development presents an opportunity to make progress.

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