

4. Challenges and Scope of Environmental Regulation

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Abstract:

The term “environmental regulation” is founded on the ideas of environmental law and focuses on the management of certain natural resources, including minerals, forests, industries, etc. In India, it is also referred to as “environmental law.” In India, a law of this nature immediately implements the Constitution’s provisions. Environmental regulations, in particular, aim to safeguard the environment and public health from harm caused by industry and national development. This chapter will provide a brief analysis of the barriers to the successful implementation of environmental legislation, including weak enforcement mechanisms, insufficient funding, and the need for improved agency collaboration. This chapter’s main emphasis is on numerous environmental-related acts, their scope, challenges faced by the public, individuals, and industries, and their recommendations.

Keywords:

environmental regulation, scope, forest act, pollution act, and air act

4.1 Introduction:

The concept of environmental regulation is understood as a state practice representing effective public administration (www.encyclopedia.com). These guidelines are subject to modification when new information becomes available. One of the environmental regulations to be aware of is the Clean Water Act, which is also known as the Clean Air Act. India’s main environmental laws and regulations are the Environmental Protection Act 1986, the Water (Prevention and Control of Pollution) Act 1974, and the Air (Prevention and Control of Pollution) Act 1981. Environmental control is one of the most significant services that governments provide to their populations. Because they must properly dispose of pollution, businesses and people must pay for environmental regulations. They demonstrate and ensure improved wellbeing, a cleaner environment, and other advantages.

To address air and water pollution, India has established a number of environmental laws, such as the Water Act of 1974 and the Air Act of 1981. The cost-effectiveness of these programs may be affected by their implementation, but comprehensive data collection on their efficacy is inadequate. In a researcher’s study on pollution emissions in dirty cities, industrial plants were the main focus. The information collected influenced environmental regulations, emphasizing how regulations affect pollution levels.

In order to strengthen regulations and lessen pollution in these locations, the study gave regulators information on pollution emissions, regulatory compliance, and penalties (Greenstone, 2012; Greenstone et al., 2019).

Types of Environmental Regulation in India

Command-and-control and market-based environmental regulation are the two methods of environmental regulation. Environmental regulations should be kept as rigorous as possible. Environmental law is sometimes referred to as environmental regulation or control. It comprises laws and regulations that address many aspects of the environment, including the condition of air quality and water quality. The main environmental laws and regulations are the Environmental Protection Act of 1986, the Water (Prevention and Control of Pollution) Act of 1974, and the Air (Prevention and Control of Pollution) Act of 1981 (www.sciencedirect.com).

Data Collection Method:

This study uses secondary data, including books, journals, comments given by experts, etc., which have been analyzed in this study area. A descriptive and analytical method is used in this study.

4.2 Literature Review:

The following related literature has been reviewed:

Jorgenson and Wilcozen (1993) urge that motor vehicle emissions be included in environmental regulations, pointing to the higher expenses related to motor vehicle regulation, fuel use, and maintenance.

Winter, G. (2001), urges that the term “environmental regulation” (ER) refers to state engagement in markets for environmental protection by laws or human action. He interprets nature through ER as “fate,” a resource, an “environment,” or a biosphere. Uncertainty, conflicts of interests, and differences between scientific and real-world experiences are difficulties faced by ER. However, it makes use of cost-benefit analysis, precautionary principles, and public involvement.

McManus, P. (2009) urges that environmental regulation is the process of imposing restrictions or obligations on people, businesses, and other entities in order to protect the environment or restore it once it has been damaged. The phrase alludes to legislation approved by Parliament and rules made by agencies tasked with preserving the environment. In the latter half of the 20th century, he advocates support for environmental control since it restricts the expansion of certain businesses while fostering overall growth.

Moosa A. Imad (2016) urges that environmental management is necessary to ensure primary benefits like better health and secondary benefits like increased production. They place a strong focus on the value of environmental quality as it relates to user and existence values, as well as the necessity of protecting these resources for future generations.

Abdallah, T. (2023), urges combating noise pollution and advancing environmental sustainability and supports the adoption of environmental rules like the National Environmental Policy Act (NEPA). These laws, which have been in force for more than a century, were put in place to safeguard natural resources, stop ecological effects, and guarantee the safety of cities, national parks, and tourist destinations.

4.3 India's Environmental Regulation Challenge:

Environmental regulation faces two intrinsic challenges: *First*, protecting public goods with individual rights or property rights; *second*, environmental problems occur in wide physical areas, most involved in regulatory processes affecting economic growth (Jose Luis Lujan and Adam Briggie). As Mejia (2009), in her article "*The Challenge of Environmental Regulation in India*," analyzes in a critical way, she has some points regarding the challenge of environmental regulation in India:

- Indian law forbids mining operations near native tribes as well as on land and in wildlife corridors. The Ministry of Environmental and Forests (MoEF) and Sterlite Industries (India), Ltd., have received complaints from opponents, including tribal communities and environmental organizations. It makes the case that mining operations have an impact on territory that serves as a vital wildlife corridor, is inhabited by native tribes, and is protected by Indian law.
- Amnesty International and the Supreme Court have criticized India's water pollution laws, pointing out that the Bhopal facility, like Union Carbide sites in the U.S.A., lacks comprehensive environmental protections and that the firm has not provided toxicity information or compensation money that had been allocated but not yet been repaid or may not have been approved by the Indian Supreme Court in 1989.
- The Environmental Protection Act, which gives the federal government the authority to control pollution, is among the environmental laws highlighted in the India Infrastructure Report 2002. In Article 21 of the Indian Constitution, the right to life is protected, which also includes the right to clean air and water (2009: 8724).
- At all levels, there are more environmental challenges as new projects are approved for development. Citizens in India are able to challenge development projects in court, which has increased the number of environmental lawsuits that the MoEFs have agreed to fund (2009: 8715).
- *Weak enforcement mechanisms*: The fragility of the enforcement procedures is one of the major challenges to enforcing environmental regulation in India. Environmental restrictions typically go unmonitored and unenforced because of a lack of funding, inadequate infrastructure, and capability issues in regulatory organizations.
- *Lack of public participation*: Good environmental governance depends on effective public participation. The public is frequently not sufficiently involved in decision-making processes linked to environmental issues, which leads to lax enforcement of environmental regulations. The efficient application of environmental regulations may be hampered by the limited awareness and participation of local communities, are mainly those in rural and marginalized areas.
- *Corruption and illegal activities*: The enforcement of environmental regulations in India is severely hampered by corruption and illegal activities such as illegal mining, forestry, and pollution. Due to unscrupulous business practices, a lack of accountability,

and inadequate enforcement measures, these illicit actions frequently go unnoticed, causing environmental devastation.

- *Conflicting interests*: because there are frequently competing interests among various stakeholders, balancing economic development with environmental conservation can be challenging. Economic benefits may take precedence over environmental considerations and environmental rules and regulations in certain industries, infrastructure projects, and other developmental activities.

4.4 Scope of Environmental Regulation:

The Central Pollution Control Board is where the scope of environmental regulation began. Like the Supreme Court of India, which enacted the Act of Environment Protection, this is one of the organizations with the power to control the environment in the nation. The Ministry of Environment, Forests, and Climate Change (MoEFCC), CPCB, and SPCBs, which are also examples of environmental regulations, are the main regulatory bodies. On the one hand, Maharashtra, India's most industrialized and second-most populous state is governed by the Maharashtra Pollution Control Board (MPCB), which is responsible for environmental regulation.

In this chapter, it is discussed how environmental law is a developing topic with a wide range of work that covers concerns with air and water quality, preventing pollution, and safeguarding natural resources. The Wildlife Protection Act of 1972, the Water (Prevention and Control of Pollution) Act of 1974, the Air (Prevention and Control of Pollution) Act of 1981, the Environment Protection Act of 1986, the Forest Conservation Act of 1980, and the Biodiversity Act of 2002 are among the important environmental laws for India, as noted by Debasish.

Let's briefly explain the scope of environmental regulation in India.

A. Central Pollution Control Board:

The National Air Quality Monitoring Programme (NAMP), a country-wide program that spans 344 cities and towns in 28 states, and six Union Territories of India, is being carried out by the CPCB. The NAMP attempts to detect non-attainment cities, identify air quality trends, create preventive actions, and comprehend natural cleansing processes. Under the NAMP, the CPCB monitors four air pollutants, including sulphur dioxide, nitrogen oxides, respirable suspended particulate matter, and fine particulate matter.

This is done in cooperation with state pollution control boards and the National Environmental Engineering Research Institute, ensuring data uniformity and providing technical and financial support for monitoring stations (www.cpcb.nic.in).

B. Air (Prevention and Control of Pollution) Act:

According to Mathew and Uppal, India passed the Air (Prevention and Control of Pollution) Act to tackle air pollution. In conjunction with international conferences like the Stockholm Conference for Human Environment, the Act aimed to safeguard air quality and lessen

pollution. While the Air Act strengthened the power of central and state boards to regulate air pollution, the US Clean Air Act of 1963 concentrated on responding to new threats to air quality. Even after being revised, India's Air Act continues to have significant issues, including inadequate funding for PCBs and a lack of criminal prosecution. This limits their capacity to carry out crucial air quality management duties and makes the criminal justice system inefficient. India needs a comprehensive strategy known as the Environment Management Act to address air pollution (Mathew and Uppal, 2021).

C. Pollution of Water:

In order to increase the Central Board and State Boards' resources for battling water pollution, the Water (Prevention and Control of Pollution) Cess Act, passed in 1977, imposes a cess on industrial water use. The 1988 revisions to the Act were made in accordance with Article 252, and the state legislatures subsequently ratified them (www.cpcb.nic.in/water-pollution/).

D. Environment Protection Act:

A thorough framework for the preservation and enhancement of India's environment is provided by this law. It grants the national and central governments the power to put environmental protection policies into effect, including standards-setting, assessing how those policies will affect the environment, and managing hazardous items and activities.

E. Forest Conservation Act:

This legislation aims to stop the conversion of forested land to non-forest uses. It mandates compensating reforestation and natural world protection measures for such diversions and requires prior consent from the central authorities for any diversion of forested area land.

F. Biological Diversity Act:

It attempts to sustainably maintain and use organic varieties in India. It regulates who has access to natural resources, upholds the value of traditional knowledge, and establishes a national body to oversee biodiversity conservation efforts. India's initiatives are highly regarded by both the Kyoto Protocol and the United Nations Framework Convention on Climate Change. In India, for example, "wildlife mitigation measures" are intended to decrease the adverse effects of infrastructure on wild animals. The biodiversity policy is an essential part of NTPC's environmental policy. In addition to joining the India Business and Biodiversity Initiative (IBBI), the NTPC published its first biodiversity policy in 2018. It raises awareness of biodiversity among the local population, the workforce, and business partners (www.newsonair.com/2022).

G. Natural Resources Protection:

The ecological balance is crucial for life, species diversity, and human survival. To protect and conserve resources like soil, water, forests, biodiversity, and dense forests, we must improve critical thinking, manage grazing, reforestation, and terracing. Water conservation

can be achieved through tree planting, dams, and industrial waste treatment. Protecting forests requires national-level efforts, public support, tree cutting, afforestation projects, and strict enforcement of the Forest Conservation Act. By addressing these issues, we can ensure the preservation of our natural resources and the survival of our species (<https://www.scribd.com>).

4.5 Recommendations to Enhance Environmental Regulation in India:

Kattumuri and Lovo (2018) have identified some important recommendations towards enhancing environmental regulation in India, as follows:

- A. EIA, SEIAA, and SPCBs have made it simpler to implement an EIA process, improving environmental regulation in India by reducing business births in states with stricter enforcement and encouraging knowledge and resource sharing.
- B. Any relevant businesses or forest regions should be considered, and high polluting firms should be assessed. It is critical to re-evaluate how all relevant industries, including the auto sector and forest acts, are included in the EIA process.
- C. India increased its “ease of doing business,” ranking 100th out of 190 countries in the World Bank’s 2018 Doing Business Report. To make conducting business in India easier, the government should tighten its environmental standards and regulate national parks and the sources they are connected to.
- D. To strengthen enforcement practices, expand regulatory organizations’ capacity, and improve infrastructure. Better environmental law enforcement, compliance, and monitoring are made possible by it.
- E. The promotion of both economic development and environmental preservation is addressed by environmental regulations and sustainable resource management.
- F. Reliable remote sensing, geographic information systems (GIS), and other state-of-the-art technologies can aid in monitoring and evaluating environmental parameters, and novel solutions can aid in managing environmental issues sustainably.
- G. Effective governance and responsible judicial processes are necessary for the implementation of environmental regulation in order to offer a more effective and efficient system of governance.
- H. Technological advancements and environmental sustainability reforms, including EIA processes, are crucial to ensuring India’s commitment to environmental sustainability and meeting the highest standards in the sector (2018: 36–37).

4.6 Conclusions:

Thus, to put it briefly, environmental regulation is essential to protect enterprises from incurring unnecessary costs while also enhancing environmental quality. In affluent nations, EIA regulations have helped to enhance the environment, but they also come at a high cost. India has strengthened enforcement and decreased polluting activities as a result of its dedication to environmental conservation and regulatory development. However, there is still a regulatory gap between jurisdictions with low and high enforcement, which has an impact on economic benefits and environmental effects. Future changes should take into account the optimal effects on state-by-state environmental enforcement. Environmental regulation is intended to enforce a polluted environment effectively.

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