An Analysis of Policies and Implementation of Environmental Legislation and Green Governance in India

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ABSTRACT

This paper provides a thorough examination of environmental legislation for green governance in India, offering a comprehensive analysis of both policies and their practical implementation. Through an in-depth review of existing laws, regulations, and their historical context, the study examines and evaluates the effectiveness and impact of environmental laws and green governance in addressing various environmental challenges faced by our country. By examining the challenges encountered during implementation, the research seeks to provide insights that can enhance future policy developments and promote sustainable environmental practices in India. The objective of this research paper is to delve into an extensive analysis of the major environmental laws and regulations in India, including the Environment Protection Act, Forest Conservation Act, Water (Prevention and Control of Pollution) Act, Air (Prevention and Control of Pollution) Act, Wildlife Protection Act, and others. It examines the roles and responsibilities of various regulatory bodies, including the Ministry of Environment, Forests, and Climate Change, State Pollution Control Boards, and other relevant authorities. The research discusses the strengths and weaknesses of the enforcement mechanisms, identifying gaps and challenges in the implementation of Environmental laws and green governance. It addresses

the issue of stakeholder engagement and participation in environmental decision-making processes. It also analyses the provisions for public consultation, access to information, and the role of non-governmental organisations in shaping environmental policies and influencing the implementation of legislation. Therefore, the study explores the challenges and opportunities for strengthening public participation and fostering greater accountability in environmental green governance.

Keywords: amendments; environmental legislation; green governance; regulations; sustainable development

FULL PAPER

Introduction

A complex interplay of ecological challenges and rapid socio-economic development characterises the environmental landscape in India. With a burgeoning population and increasing industrialisation, the nation faces pressing environmental concerns, ranging from pollution to biodiversity loss. Against this backdrop, the paper delves into the evolution of environmental legislation and green governance in India. Tracing the historical development of policies and regulations, it seeks to provide a nuanced understanding of the legal frameworks designed to safeguard the environment.

In the context of green governance, the Green Governance Initiative (GGI) is a youth-based non-partisan policy research think-tank that works through collaboration with elected representatives, policymakers, and administrators to ensure the effective implementation of the "United Nations' 2030 Agenda for Sustainable Development along with India 2030. The organisation identifies potential inputs to achieve sustainable and achievable outcomes, while ensuring the optimum use of minimal resources. It further looks forward to building a holistic synergy between the top-down model of governance by collaborating with private investors, technologists, policymakers, thinkers, and others. GGI believes that it is essential to promote and engage today's youth at the forefront of development by involving them in policy-making and governance.

Ashwani is the founder of the Green Governance Initiative and is currently Assistant Private Secretary to the Hon'ble Minister for Jal Shakti (Shri Gajendra Singh Shekhawat), Government of India. He holds a bachelor's degree in Political Science

& History and is also pursuing his Master's degree in Public Administration. Prior to founding GGI, Ashwani always had a vision of an Ideal Constituency Development through the United Nation's Sustainable Development Goals, which gave birth to a short-term project "Mission Antyodaya" in the year 2016 followed by his very own brainchild, GGI in December 2019 which aims at Grassroots community outreach to achieve better sustainability and economic development by promoting "Youth in Governance".

However, the effectiveness of these policies in achieving their intended goals and the challenges encountered during their implementation remain subjects of scrutiny. This research undertakes a comprehensive examination of the legislative landscape, analysing key acts, regulations, and amendments that shape environmental green governance. By shedding light on the gaps and shortcomings in the current system, this paper endeavours to contribute valuable insights to the ongoing discourse on sustainable environmental management in India.

Objectives

The objective of this study is to provide a comprehensive analysis of environmental legislation and green governance in India, focusing on the policies and their implementation:

1. To evaluate the existing environmental legislation and green governance framework in India, including acts, regulations, and policies

2. To understand the legal mechanisms established for environmental protection

3. To assess the extent to which these environmental laws align with international standards and best practices, considering global environmental concerns such as climate change, biodiversity loss, pollution, and sustainable development

4. To analyse the implementation of environmental policies and the effectiveness of regulatory institutions responsible for their enforcement, with a focus on identifying gaps, challenges, and areas for improvement

5. To raise awareness about the green governance vision, mission and Green Governance Fellowship

Methodology

The paper is based on the historical context and development of environmental legislation and green governance in India, tracing the evolution of

laws and policies from the early stages of Independence to the present. The study comprises documents on legislative acts and constitutional provisions that have shaped the country's environmental governance framework. Its sources are secondary data sources, print and electronic media and web-based sources. Intensive library work has been conducted to examine various research studies published in books and journals.

Statement of the Problem

1. Enforcement Gaps: Despite stringent regulations, enforcement gaps exist due to resource constraints, including insufficient staffing, funding, and technological resources, corruption, and inadequate monitoring

2. Complex Regulatory Framework: The multiplicity and complexity of environmental laws and regulations can create confusion among stakeholders, making it challenging to navigate and comply with the diverse set of rules governing different aspects of the environment

3. Lack of Coordination among Agencies: Ineffective coordination between central and state agencies, such as the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs), leads to inconsistent enforcement and monitoring practices

4. Legal Delays and Complexity: Lengthy legal processes and complicated legal procedures often result in delays in resolving environmental disputes

5. Limited Public Participation: Public participation in decision-making processes, especially in Environmental Impact Assessments (EIA), is limited

6. Limited Technological Infrastructure: Inadequate technological infrastructure for continuous monitoring of emissions and effluents hinders the real-time assessment of industrial compliance with environmental standards consistently

7. Inadequate Penalties: The penalties imposed for environmental violations may not always serve as sufficient deterrents. Some industries find it more economical to pay fines than invest in cleaner technologies or comply with regulations

8. Challenges in Addressing Trans boundary Issues: Pollution and resource management issues that transcend state or national borders, such as river water disputes between states, require coordinated efforts. Lack of

cooperation leads to challenges in addressing these transboundary environmental concerns

9. Weak Implementation of Corporate Social Responsibility (CSR): Although companies are mandated to allocate a portion of their profits to CSR activities, the impact and effectiveness of these initiatives may vary

10. Inadequate Focus on Climate Change Adaptation: Although mitigation efforts are underway, adaptation measures to address the impacts of climate change often receive less attention. This can lead to challenges in building resilience against changing climate patterns

Literature Review

S. Divan and A. Rosencranz, in their book Environmental Law and Policy in India (2002), remarked that India employs a range of regulatory instruments to preserve and protect its natural resources. Across the country, government agencies wield vast powers to regulate industries, mines, and other polluters, but are reluctant to use their authority to discipline violators. The development of environmental law in the 1990s is essentially the story of India's Judiciary responding to the complaints of its citizens against environmental degradation and administrative sloth.

S. Ghosh, in his book Indian Environmental Law (2019), wrote that environmental law is expected to govern multifaceted and constantly evolving issues. The legal system, accordingly, must develop a level of sophistication and maturity to respond meaningfully to these issues. The exercise of judicial discretion must be based on, and circumscribed by, conceptually sound and nuanced legal arguments that emanate from a robust framework of environmental rights and legal principles.

M. Gadgil and R. Guha, in their book This Fissured Land: An Ecological History of India (1992), mentioned that the exclusionary legal framework of the Government of independent India had intensified forestry production, further marginalising peasants and tribal people while significantly eroding biodiversity.

V. R. Reddy, in his article "Environmental Movement in India: Some Reflections" (1998), researched that environmental movements in India are not necessarily driven by a desire for a green or clean earth or the preservation of humanity's heritage and endangered species, as seen in the West, but rather by the survival of the local poor. Even among these ecological movements, only a few can claim success in achieving some of their objectives. The extent of local support is

vital for the success of any grassroots-level movements; one hardly finds that the initiative for environmental protection in India comes from the people concerned.

A. Swain in his article *Democratic Consolidation? The Environmental Movement in India (1997) notes that Environmental movements revolve around competing claims over renewable natural resources, and* they also manifest the struggle for the rights of victims of environmental destruction. Resources like land, forests, and water had been locally controlled and used collectively for centuries. Colonial domination brought about a systematic transformation of these resources into commodities that would generate profits and government revenue; this transformation also paved the way for disputes between the new owners and the original users of the resource base.

Research Gap

Evaluating the impact of environmental laws on the ground in India involves assessing how effectively regulations translate into real-world outcomes. While progress has been made, challenges persist. Here are some research gaps to be considered:

1. Air Quality Management: Implementation of emission norms for industries and vehicles has led to improvements in air quality in certain areas. For instance, the introduction of Bharat Stage VI emission standards for vehicles has contributed to a reduction in vehicular emissions, positively impacting air quality in cities. However, even after a complete ban on diesel commercial and public transport vehicles for the last 15 years in Delhi, it remains one of the most air-polluted cities in India. Why?

2. Water Pollution Control: Efforts to control industrial effluents and improve sewage treatment have led to some reduction in water pollution. However, the northern rivers, such as the Ganges, Yamuna, Damodar, and Swarnrekha, are among the most polluted rivers in India. Why?

3. Waste Management: Progress has been made in waste management practices, but challenges such as improper disposal persist, and finding a permanent solution for PVC waste remains a challenge. For example, the Swachh Bharat Abhiyan aims to improve sanitation and waste management. However, challenges remain in achieving adequate waste segregation, recycling, and reuse, as well as in how many states efficiently enforce fines for littering and non-segregation.

4. Protected Areas and Biodiversity Conservation: Conservation efforts in protected areas have had a positive impact on biodiversity through several Acts, Laws, and the establishment of National Parks, Biosphere Reserves, and Sanctuaries. However, the list of vulnerable, rare, endangered and extinct flora and fauna species has increased. Why?

5. Environmental Impact Assessment (EIA) Implementation: EIA processes have contributed to more informed decision-making; however, concerns persist about the effectiveness of public consultations. For example, controversies surrounding projects like the Medanta Aluminium factory in Odisha and the Tata Nano plant at Singur, West Bengal, etc.

6. Forest Conservation and Tribal Rights: Balancing forest conservation with tribal rights is an ongoing challenge. For example, the controversy over the clash between the Forest Act and the forest rights of Adivasi communities in the Parasnath hills of Jharkhand and the Niyamgiri hills in Odisha underscores the complexities of implementing forest conservation laws.

7. Climate Change Mitigation and Adaptation: Initiatives to address climate change include renewable energy projects, afforestation, and sustainable agriculture practices. The National Action Plan on Climate Change emphasises adaptation and mitigation measures, such as the National Solar Mission and the National Water Mission, but their complete execution is at stake.

8. Public Awareness and Participation: Increasing public awareness has led to heightened scrutiny of environmental issues; however, challenges persist in achieving effective public participation. Public protests against projects like the Aarey Metro Car Shed in Mumbai demonstrate the importance of public engagement in environmental decision-making.

9. Industrial Compliance and Enforcement: Industrial compliance with pollution control norms has improved, but enforcement challenges persist. For example, the closure of polluting industries in areas like Bellandur Lake in Bangalore highlights the need for stricter enforcement measures.

10. Corporate Social Responsibility (CSR) Initiatives: CSR initiatives contribute to environmental conservation and community welfare, but their effectiveness varies. Companies investing in sustainable initiatives, such as afforestation or water conservation projects, often showcase positive outcomes of their CSR activities. However, only about 64% of the Indian population has access to clean and hygienic drinking water.

Discussion and Findings

This paper aspires to study the environmental policies, legislation, action plan, protection laws, management laws, control laws, conservation laws, institutional framework and implementation, challenges faced by implementation agencies and stakeholders as well as the role of NGOs to promote sustainable development and green governance in India efficiently to sensitize the issue at the meso, macro and micro level in India.

1. Environmental Policies and Legislation in India (The Constitution and Environmental Protection): The Indian Constitution incorporates provisions for environmental protection under the Directive Principles of State Policy. Article 48-A and Article 51-A (g) specifically address environmental conservation. Article 48-A states that the State shall endeavour to protect and improve the environment and safeguard forests and wildlife. Article 51-A (g) imposes a fundamental duty on citizens to protect and improve the natural environment, including forests, lakes, rivers, and wildlife, and to have compassion for living creatures.

2. National Environmental Policies and Action Plans: India has established several National Environmental Policies and Action Plans to address environmental challenges and promote sustainable development, which are as follows:

   - National Environment Policy (2006): Its objective is to promote sustainable development and conservation of natural resources. It encourages the integration of environmental considerations into development projects, emphasising the importance of Environmental Impact Assessments (EIAs).

   - National Action Plan on Climate Change (NAPCC): It consists of eight 'National Missions' that are pivotal to its implementation. The purpose of NAPCC is to protect, restore and enhance India's forest cover. Its objective was to increase forest or tree cover to five million hectares (mha) and improve the quality of forest or tree cover on an additional five million hectares of forest or non-forest lands. The eight missions are: the National Solar Mission, the National Mission for Enhanced Energy Efficiency, the National Mission on Sustainable Habitat, the National Water Mission, the National Mission for Sustaining the Himalayan Ecosystem, the National Mission for a Green India, and the National Mission for Sustainable Agriculture.

- National Water Policy (2012): The NWP is a sectoral document that governs the planning and development of water resources and their optimal utilisation. Its objective is to assess the existing situation and propose a framework for a plan of action to promote efficient water use, conservation, equitable distribution, and recycling, while increasing public awareness and participation in water conservation efforts.

- National Forest Policy (1988): NFP envisages that 33% of the geographical area should be under forest or tree cover. It aims to maintain environmental stability, restore ecological balance, and conserve natural heritage. Its purpose is to increase the productivity of forests to meet essential national needs.

- National Biodiversity Action Plan (2008): The NBAP identifies the threats and constraints to biodiversity conservation. It aims to conserve biodiversity and promote the sustainable use of biological resources, including the establishment of protected areas and the sustainable management of ecosystems.

- National Air Quality Management Program (NAMP): NAMP, which the Central Pollution Control Board oversees, is a comprehensive initiative aimed at monitoring ambient air quality across the nation with a network comprising 804 active stations; it covers 344 cities and towns spanning 28 states and six union territories with a significant goal of reducing the concentration of coarse and fine particulate matter in the atmosphere by at least 20% to 30% by the year 2024, which was then further increased to 40% by 2026 on 12th Jan 2024.

- Solid Waste Management Rules (2016): Its objective is efficient management and recycling of solid waste. No person should throw, burn, or bury solid waste generated by them on streets, in open public spaces outside their premises, or drains or water bodies. The generator will have to pay a 'user fee' to the waste collector and a 'spot fine' for littering and non-segregated waste. It advocates for waste segregation at source, setting up waste processing facilities, and promoting the concept of extended producer responsibility. It works on five rules- refuse, reduce, reuse, repurpose, recycle.

3. Wildlife Protection Laws:

- Wild Life (Protection) Act, 1972: It is an Act of the Parliament of India enacted for the protection of plant and animal species. This Act comprises

60 Sections and six schedules, divided into eight chapters. It empowers the central and state governments to declare any area a wildlife sanctuary, national park or closed area, to prevent illegal hunting, poaching, and trade of endangered species, and to protect the remaining population of endangered species by banning hunting, giving legal protection to their habitats, and finally restricting wildlife trade.

- Forest (Conservation) Act, 1980: This act is an interface between conservation and development. Any illegal non-forest activity within a forest area can be stopped immediately to regulate the indiscriminate diversion of forest lands for non-forestry uses and to maintain a logical balance between the country's developmental needs and the conservation of its natural heritage.

- Biological Diversity Act, 2002: This act provides for the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from the use of biological resources, knowledge, and matters connected therewith. The Act also covers the protection of traditional knowledge and the equitable sharing of benefits arising from the use of such knowledge.

- National Wildlife Action Plan (2002-2016): It has five components, 17 themes, 103 conservation actions and 250 projects. The plan is based on the premise that essential ecological processes are governed or strongly moderated by ecosystems, and the removal of encroachments and illegal activities from within the forest lands and protected areas.

- Indian Forest Act, 1927 (Amended in 1984): It defines what constitutes a forest offence, what acts are prohibited inside a Reserved Forest, and penalties leviable on the violation of the provisions of the Act to regulate the movement of forest produce and impose restrictions on the hunting of specified animals.

- Environment Impact Assessment (EIA) Notification, 1994 (Amended in 2006 and 2020): The notification made way towards the development projects like industries and infrastructures like dam, commercial complexes, highways, mines, power projects etc. responsible for ensuring their environmental impacts as a part of their planning and design process to ensure that developmental projects undergo environmental scrutiny before approval.

4. Water Resource Management Laws:

- River Boards Act, 1956: It was enacted to provide for the establishment of River Boards for the regulation and development of inter-state rivers and river valleys to promote inter-state cooperation and the integrated development of river valleys. The Krishna River Board and the Godavari River Board were established under this act to address water management issues in these river basins.

- Water (Prevention and Control of Pollution) Act, 1974: It aims to prevent and control water pollution, providing for the establishment of Central and State Pollution Control Boards to monitor and regulate water quality.

- The Water (Prevention and Control of Pollution) Cess Act, 1977: It was enacted to provide for the levy and collection of a cess on water consumed by industries and local authorities to fund the prevention and control of water pollution.

- National Water Policy, 1987: It outlines a comprehensive framework for water resource development, management, and conservation, taking cognisance of the existing situation, proposing a framework for creating a system of laws and institutions, and outlining a plan of action. It emphasises the need for efficient water use and equitable distribution, aiming for sustainable water resource management.

- National Environment Policy, 2006: It addresses various environmental issues, including water resource management, with a focus on sustainable development.

5. Air Pollution Control Laws:

- The Factories Act, 1948: It sets the safety standards for workers employed in factories, the factory must have sufficient drainage system, adequate lighting, ventilation, temperature, clean water supplies, etc. later amendments included provisions related to air quality control in industrial areas setting guidelines for the emission of pollutants from industrial units.

- The Air (Prevention and Control of Pollution) Act, 1981: It aims to prevent, control, and abate air pollution through the establishment of central and state pollution control boards.

- The National Ambient Air Quality Standards (NAAQS), 1982: It prescribes permissible limits for various air pollutants to maintain a specified level of air quality. It sets standards for pollutants such as sulfur dioxide, nitrogen dioxide, and particulate matter.

- The Air (Prevention and Control of Pollution) Amendment Act, 1987: It was enacted to strengthen the legal framework for controlling air pollution and provides enhanced penalties for non-compliance.

- Motor Vehicles Act, 1988: It includes provisions for controlling vehicular emissions to mitigate air pollution. Introduction of emission standards for vehicles to limit the release of pollutants into the air.

- National Clean Air Programme (NCAP), 2019: A comprehensive action plan to reduce air pollution in major cities across India, focusing on city-specific plans, source apportionment studies, and the implementation of technology-based interventions.

6. Forest and Biodiversity Conservation Laws:

- Forest Rights Act, 2006: It recognises the rights of forest-dwelling communities over their traditional lands and resources, aiming to empower local communities and promote sustainable forest management practices.

- National Biodiversity Targets (2011-2020): Sets specific goals for the conservation and sustainable use of biodiversity. It includes targets related to protected area coverage, preventing the extinction of known threatened species, and sustainable management of agriculture.

7. Waste Management Laws:

- The Hazardous Waste (Management and Handling) Rules, 1989: Regulates the management and handling of hazardous waste. Prescribes procedures for the generation, treatment, storage, transportation, and disposal of hazardous waste.

- The Municipal Solid Wastes (Management and Handling) Rules, 2000: Focuses on the management and handling of municipal solid waste. Introduced guidelines for waste segregation, collection, transportation, processing, and disposal.

- The Plastic Waste (Management and Handling) Rules, 2011: Aims to regulate the manufacture, sale, and use of plastic carry bags and

containers. Encourages recycling of plastic waste and sets limits on the thickness of plastic bags.

- The Solid Waste Management Rules, 2016: Comprehensive rules for the management of solid waste, e-waste, waste processing, and scientific disposal practices.

- The Construction and Demolition Waste Management Rules, 2016: Regulates the management and disposal of construction and demolition waste. Requires developers to segregate and manage construction waste in a responsible and environmentally responsible manner.

- The E-Waste (Management) Rules, 2016: Aims to manage and handle electronic waste effectively. Mandates extended producer's responsibility, encouraging manufacturers to manage the e-waste generated by their products.

- The Plastic Waste Management Rules, 2016: Focuses on the management of plastic waste with an emphasis on recycling.

8. Green Governance: It is important for restructuring economic development and achieving a green technological revolution. It is important due to environmental sustainability issues, global warming, environmental degradation, and increasing demand for energy. The Green Governance Initiative's mission is to provide both practical and essential support in governance through policy-making and analytical research, facilitating the implementation of these efforts in line with the UN Sustainable Development Goals at the grassroots level. Its vision is to address the "United Nations' 2030 Agenda for Sustainable Development along with India 2030 by adopting a holistic strategy till 2030, through a comprehensive approach between the hierarchy of Governance and its stakeholders. Green governance in business ethics involves:

- Establishing board accountability to company stakeholders

- Setting out directors' responsibilities

- Incorporating environmental, social, and economic issues into decision-making

Challenges Faced by Implementation Agencies

1. Inadequate Monitoring Infrastructure: Many pollution control boards face challenges in monitoring air and water quality due to a lack of sufficient

monitoring stations, resulting in incomplete data, hindering effective pollution control measures.

2. Resource Constraints: Limited financial resources and inadequate staffing levels in agencies such as the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs) hinder their ability to conduct regular inspections and enforce environmental regulations.

3. Ambiguous Regulatory Framework: The complexity and ambiguity in environmental laws, such as overlapping regulations for air and water quality, create confusion for agencies, making it difficult to enforce and implement regulations consistently.

4. Challenges in Industrial Compliance: Industries often face difficulties in adopting cleaner technologies and complying with environmental standards due to financial constraints, resulting in non-compliance with prescribed emission norms.

5. Public Participation and Awareness: A lack of public awareness and participation hinders the implementation of environmental policies.

6. Delayed Judicial Processes: Legal proceedings related to environmental violations frequently experience delays, which hinder the timely implementation of corrective measures.

7. Limited Expertise: Agencies may lack specialised personnel with expertise in emerging environmental challenges, such as electronic waste management or the impacts of emerging pollutants, hindering their ability to address evolving environmental issues.

8. Inadequate Waste Management Infrastructure: The lack of proper waste disposal and treatment facilities, particularly in urban areas, results in improper waste management practices, which in turn lead to environmental pollution.

9. Trans-boundary Issues: Pollution and resource management issues that transcend state or national borders, like river water disputes between states, require coordinated efforts. Lack of cooperation can lead to challenges in addressing these transboundary environmental concerns.

Result and Suggestion

Strengthening regulatory and enforcement mechanisms related to environmental legislation and green governance in India is crucial for the effective

implementation and compliance with these laws. Enhanced monitoring and surveillance through the investment in advanced technologies, such as satellite monitoring and real-time sensor networks, can improve the monitoring of industrial emissions, deforestation, and other environmental parameters. Capacity building for regulatory authorities by providing training programs for officials in regulatory bodies, such as the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs), can enhance their understanding of emerging environmental challenges and enforcement techniques. Stringent penalties for non-compliance, such as increasing fines and penalties for environmental violations, can serve as a deterrent. Introduction of fast-track environmental courts ensures swift justice and effective enforcement. Encouraging public participation through citizen science initiatives can supplement official monitoring efforts. Platforms allowing citizens to report environmental concerns and violations can enhance surveillance and enforcement. Implementing online platforms that enable industries to submit real-time compliance reports and environmental impact assessments can streamline the reporting process and enhance transparency. Performance-based incentives for industries that consistently comply with environmental regulations can encourage a proactive approach to environmental management. Mandating regular environmental audits for industries and projects can help identify compliance gaps and areas for improvement, thereby enhancing overall environmental performance. Involving local communities in environmental monitoring through community-based organisations can enhance the oversight of projects and industries operating in their vicinity, fostering a sense of ownership and responsibility. Collaborating with international organisations and adopting best practices from successful environmental enforcement models globally can provide insights and benchmarks for strengthening regulatory mechanisms. Ensuring inclusive consultations involving all stakeholders, including NGOs, industries, and local communities, during the formulation of environmental policies can lead to more comprehensive and effective regulations.

Promoting green technologies and sustainable practices in India is crucial for mitigating environmental impacts and fostering a more sustainable and resilient future like renewable energy adoption, energy efficiency programs, faster adoption and manufacturing of hybrid and electric vehicles, adoption of waste-to-energy plants, such as the Okhla Waste-to-Energy Plant in Delhi, convert municipal solid waste into electricity, afforestation and reforestation programs water conservation technologies like drip irrigation and rainwater harvesting systems promote efficient water use in agriculture and urban areas. The use of metro rail projects in cities like

Delhi and Bangalore provides eco-friendly mass transit options, reducing reliance on individual vehicles and lowering emissions. This is achieved through educational and awareness campaigns, as well as the integration of environmental education at the school and college levels, to build a sustainable and environmentally conscious society.

Conclusion

The study provides an exhaustive review of India's environmental legislative framework and green governance, encompassing laws related to air and water quality, waste management, biodiversity conservation, and other relevant areas. The analysis of air and water quality management laws reveals both strengths and weaknesses. While specific standards have been established, challenges persist in monitoring and achieving compliance, particularly in densely populated urban areas. The analysis reveals the strengths and weaknesses of enforcement mechanisms, emphasising the importance of stringent penalties, improved monitoring technologies, and enhanced collaboration between regulatory bodies. Findings underscore the importance of strengthening the Environmental Impact Assessment (EIA) process, emphasising the need for robust assessments, transparency, and meaningful public consultations.

One of the latest programmes offered by the Indian Government for youth participation is the Green Governance Fellowship, a one-year programme in the 17 SDGs of the UN for young graduates or professionals to promote sustainable constituency growth. The Green Governance Fellowship will expose participants to a diverse range of subjects and fields over one year. The fellowship programme has been conceptualised with a vision to bring together young and energetic people to work on sustainable development goals for constituency development, equipping young professionals to become powerful change agents by allowing them to develop a holistic understanding of how grassroots empowerment plays a catalytic role in bringing about social change.

- The duration of the fellowship shall be one year and a full-time commitment

- A stipend of Rs. 20,000 per month will be paid to the selected candidates

- At the end of the fellowship, fellows shall receive a letter of recommendation from the MP Office along with a certificate of completion

Works cited

Chhatrapati Singh, I. (1984). *Legal Policy for the Control of Environmental Pollution.* Cochin University Law Review, 8, pp. 1 – 12.

Divan, S.& Rosencranz, A. (2001). *Environmental Law and Policy in India*. New Delhi: Oxford University Press.

Gadgil, M., & Guha, R. (2013). *This Fissured Land: An Ecological History of India.* New Delhi: Oxford University Press.

Ghidiyal, M. C. (2000). *Forest Acts, Policies and Land Settlements.* Kathmandu: International Centre for Integrated Mountain Development.

Ghosh, S. (2019). *Indian Environmental Law.* Hyderabad: The Orient Blackswan.

Maheshwara Swamy, N. (2022). *Textbook on Environmental Law.* 2nd Edition. Hyderabad: Asia Law House Publication.

Mathew, J. (2022). Retrieved from academia.edu: https://www.academia.edu/34325976/Colonial_Forest_Policy_in_South_India_with_Special_Reference_to_Malabar_1792_1947.

Murali Krishna, K.V.S.G. (2016). *Air Pollution and Control.* New Delhi: Laxmi Publications Private Limited.

Ramakrishna, K. (1985). *The Emergence of Environmental Law in the Developing Countries: A Case Study of India.* Ecology Law Quarterly, Vol. 12 (4), pp. 907 – 935.

Rao, C.S. (2018). *Environmental Pollution Control Engineering.* Third Edition. India: New Age International Publishers.

Reddy, V. (1998). "Environmental Movement in India: Some Reflections". *Journal of Indian Science of Political Economy.* Vol. 10, No. 4, pp. 685-695. https:/www.researchgate.net/publication/262886311

Sahasranaman, P.B. (2012). *Handbook of Environmental Law. (* Second Edition *).* New Delhi: Oxford University Press.

Shanthakumar, S. (2022). *Landmark Judgements on Environmental Protection.* New Delhi: Law & Justice Publishing Co.

Swain, A. (1997). "Democratic Consolidation? Environmental Movements in India". *JSTOR*, Vol. 37. No.9, pp.818-832 . https://www.jstor.org/stable/2645699.

Thomas Mathew. (1982). *Governmental Response to Environmental Needs in India.* India International Centre Quarterly. Vol. 9 (3/4), pp. 238–248.

Trivedy, R.K. (2010). *Handbook of Environmental Laws, Acts, Guidelines, Compliances & Standards.* 3rd Edition. New Delhi: B.S. Publications.

Universal's Legal Manual on Environment and Pollution Laws containing Acts and Rules. (2022). Universal Law Publishing Co.