

Green Criminology and Ecocide: India's Enforcement Challenges

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ABSTRACT

Green criminology is an emerging field that examines environmental harms, ecological destruction, and crimes against nature within broader social, legal, and political frameworks. The concept of ecocide, referring to extensive and severe damage to ecosystems caused by human activities, has gained increasing global attention as scholars and policymakers debate its recognition as an international crime. In India, rapid industrialization, urban expansion, mining, deforestation, and pollution have intensified environmental degradation, raising critical concerns regarding ecological justice and sustainable development. Although India has a comprehensive legal framework for environmental protection, enforcement gaps remain significant.

In recent years, the country has introduced and updated several environmental regulatory mechanisms, including the Environment (Protection) Act, 1986, the National Green Tribunal Act, 2010, the Biological Diversity (Amendment) Act, 2023, and the Forest (Conservation) Amendment Act, 2023, aimed at strengthening environmental governance and balancing development with ecological protection. Additionally, regulatory measures such as the Plastic Waste Management Rules, 2016 (amended 2022) and E-Waste Management Rules, 2022 reflect India's growing efforts to address emerging environmental challenges. Despite these developments, the effective enforcement of environmental laws remains a persistent challenge due to weak regulatory capacity, bureaucratic inefficiencies, limited monitoring mechanisms, and political-economic pressures.

This study examines the intersection of green criminology and ecocide within the Indian legal context, focusing on enforcement challenges and the gap between legislative intent and practical implementation. It argues that recognizing large-scale environmental destruction through a green criminological lens can strengthen accountability and policy responses. The paper emphasizes the need for stronger institutional capacity, clearer legal recognition of ecocide-like harms, and more effective implementation of emerging environmental laws to ensure ecological sustainability and environmental justice in India.

Keywords: Green Criminology; Ecocide; Environmental Law Enforcement; Environmental Justice; India.

INTRODUCTION

Environmental degradation has emerged as one of the most pressing global challenges of the twenty-first century. Rapid industrialization, urban expansion, deforestation, mining, and unsustainable consumption patterns have led to significant ecological damage across the world. In this context, the field of green criminology has gained prominence as an interdisciplinary approach that examines environmental harm, ecological destruction, and crimes against nature from legal, social, and criminological perspectives. Unlike traditional criminology, which focuses primarily on legally defined crimes, green criminology expands the scope of analysis to include harmful activities that may not always be criminalized but nonetheless cause serious environmental and social harm. This broader approach enables scholars to critically examine the role of corporations, governments, and regulatory institutions in environmental damage and ecological injustice.

One of the key concepts within green criminology is ecocide, which refers to extensive damage to, destruction of, or loss of ecosystems to such an extent that the peaceful enjoyment of the environment by inhabitants is severely diminished. The idea of ecocide has gained significant global traction in recent years, with scholars, policymakers, and environmental advocates proposing its recognition as an international crime under international criminal law. The discussion surrounding

ecocide highlights the need to hold powerful actors accountable for large-scale environmental destruction, particularly when existing legal frameworks fail to adequately address such harms. Although ecocide is not yet formally recognized as an international crime under the Rome Statute of the International Criminal Court, debates continue regarding its inclusion alongside crimes such as genocide, crimes against humanity, war crimes, and the crime of aggression.¹

India presents a compelling case for examining environmental harm through the lens of green criminology. As one of the world's fastest-growing economies, India has experienced rapid industrialization and urban development over the past several decades. While economic growth has contributed to poverty reduction and infrastructure development, it has also intensified environmental pressures. Issues such as air and water pollution, deforestation, biodiversity loss, illegal mining, and improper waste management have become major environmental concerns across the country. According to global environmental assessments, several Indian cities consistently rank among the most polluted in the world, highlighting the urgent need for stronger environmental governance and regulatory enforcement.²

India has developed an extensive legal and institutional framework for environmental protection over the years. Constitutional provisions under Articles 48A and 51A(g) emphasize the duty of the State and citizens to protect and improve the environment.³ Building upon these constitutional commitments, several environmental statutes have been enacted to regulate pollution, conserve natural resources, and promote sustainable development. Key legislations include the Environment (Protection) Act, 1986, which provides a broad framework for environmental regulation, and the National Green Tribunal Act, 2010, which established a specialized judicial body to handle environmental disputes and provide effective remedies for environmental damage.⁴ These laws have played a significant role in shaping environmental governance in India by strengthening regulatory oversight and facilitating access to environmental justice.

In recent years, the Indian government has also introduced amendments and new regulations aimed at addressing emerging environmental challenges. For instance, the Biological Diversity (Amendment) Act, 2023 seeks to streamline biodiversity management processes while promoting sustainable use of biological resources.⁵ Similarly, the Forest (Conservation) Amendment Act, 2023 modifies existing forest conservation regulations in order to balance environmental protection with developmental priorities such as infrastructure and national security projects.⁶ In addition, regulatory measures such as the Plastic Waste Management Rules, 2016 (amended in 2022) and the E-Waste Management Rules, 2022 represent important policy initiatives aimed at controlling waste generation and improving recycling practices.⁷

Despite the existence of a comprehensive environmental legal framework, enforcement remains one of the most significant challenges in India's environmental governance system. Weak regulatory capacity, limited monitoring mechanisms, bureaucratic inefficiencies, and political-economic pressures often hinder effective implementation of environmental laws. Environmental crimes frequently involve powerful corporate actors or large-scale development projects, making enforcement particularly complex. Furthermore, environmental harms often disproportionately affect marginalized communities, including indigenous populations and rural communities that depend directly on natural resources for their livelihoods. This raises important questions about environmental justice, equity, and accountability.

The perspective of green criminology provides a useful analytical framework for examining these challenges. By focusing on environmental harm rather than solely on legally defined offenses, green criminology highlights the structural and systemic factors that contribute to ecological destruction. It also emphasizes the need to consider environmental harms within broader social and economic contexts, including globalization, resource exploitation, and corporate power. In the

¹ International Criminal Court, *Rome Statute of the International Criminal Court (1998)*, available at: <https://www.icc-cpi.int/resource-library/documents/rs-eng.pdf> (last accessed on 13 March 2026).

² United Nations Environment Programme, *Global Environment Outlook Reports*, available at: <https://www.unep.org/resources/global-environment-outlook> (last accessed on 13 March 2026).

³ Constitution of India, Arts. 48A and 51A(g), available at: <https://legislative.gov.in/constitution-of-india/> (last accessed on 13 March 2026).

⁴ National Green Tribunal Act, 2010, available at: <https://legislative.gov.in/sites/default/files/A2010-19.pdf> (last accessed on 13 March 2026).

⁵ Biological Diversity (Amendment) Act, 2023, available at: <https://prsindia.org/billtrack/the-biological-diversity-amendment-bill-2021> (last accessed on 13 March 2026).

⁶ Forest (Conservation) Amendment Act, 2023, available at: <https://prsindia.org/billtrack/the-forest-conservation-amendment-bill-2023> (last accessed on 13 March 2026).

⁷ Ministry of Environment, Forest and Climate Change, *Plastic Waste Management Rules and E-Waste Management Rules*, available at: <https://moef.gov.in> (last accessed on 13 March 2026).

Indian context, applying a green criminological perspective can help identify gaps between environmental legislation and actual enforcement practices, as well as the social impacts of environmental crimes.

The concept of ecocide further deepens this analysis by drawing attention to the scale and severity of certain environmental harms. Activities such as large-scale deforestation, illegal mining, and industrial pollution can cause irreversible ecological damage that affects entire ecosystems and communities. While existing environmental laws in India provide mechanisms for regulation and compensation, they often fall short in addressing large-scale environmental destruction that may resemble ecocide. The absence of a clear legal framework recognizing ecocide as a criminal offense limits the ability of authorities to impose strong accountability measures against those responsible for severe environmental damage.

In this context, examining India's environmental governance through the combined lenses of green criminology and ecocide is both timely and necessary. Understanding the enforcement challenges associated with environmental laws can provide valuable insights into how legal and institutional frameworks might be strengthened. It also highlights the need for greater regulatory capacity, improved monitoring systems, and stronger accountability mechanisms to address environmental crimes effectively.

This study therefore seeks to explore the relationship between green criminology and ecocide within the Indian legal context, with particular emphasis on enforcement challenges. By analyzing existing environmental laws, regulatory institutions, and emerging policy developments, the research aims to identify gaps in environmental governance and propose ways to enhance legal and institutional responses to ecological harm. Ultimately, strengthening environmental enforcement and accountability mechanisms is essential not only for protecting natural ecosystems but also for ensuring environmental justice and sustainable development in India.

Objectives of the study

1. To examine the concept of green criminology and ecocide in the context of environmental protection and environmental crimes in India.
2. To analyze the challenges in the enforcement of environmental laws and regulatory mechanisms in India in addressing ecological harm and environmental crime.

RESEARCH METHODOLOGY

This study adopts a doctrinal and analytical research methodology to examine the relationship between green criminology, ecocide, and environmental law enforcement in India. The research primarily relies on secondary sources of data, including statutes, government reports, judicial decisions, academic books, peer-reviewed journal articles, and policy documents related to environmental protection and environmental crime. Key legislations such as the Environment (Protection) Act, 1986, the National Green Tribunal Act, 2010, the Biological Diversity (Amendment) Act, 2023, and the Forest (Conservation) Amendment Act, 2023 are analyzed to understand the existing legal framework and regulatory mechanisms governing environmental protection in India.

In addition, reports from international organizations, environmental agencies, and governmental institutions are reviewed to assess enforcement practices and challenges. The study also applies a green criminological perspective to critically evaluate gaps between environmental legislation and its practical implementation, with particular emphasis on institutional capacity, accountability, and environmental justice in addressing ecological harm.

Analysis

1. Understanding Green Criminology in the Indian Environmental Context

Green criminology is an interdisciplinary field that examines environmental harm, ecological destruction, and crimes against nature through criminological, legal, and sociological perspectives. Unlike traditional criminology, which focuses on legally defined crimes, green criminology expands the scope of analysis to include environmental harms that may not always be recognized as criminal offenses but still cause serious ecological damage and social injustice. Scholars argue that

environmental harm often results from systemic issues such as industrial expansion, corporate negligence, weak regulatory oversight, and unsustainable development policies.⁸

In India, environmental degradation has intensified due to rapid economic development, population growth, and industrialization. Issues such as air pollution, water contamination, illegal mining, deforestation, and improper waste disposal illustrate how environmental harm frequently intersects with economic and political interests. Green criminology provides an important analytical framework to understand these environmental harms by examining the role of corporations, governments, and regulatory institutions in contributing to ecological damage.

For example, environmental violations by industries often occur due to weak monitoring mechanisms and inadequate penalties. Although environmental laws exist, enforcement agencies may lack sufficient resources, technical capacity, or political independence to effectively regulate industrial activities. As a result, environmental crimes often remain underreported or inadequately prosecuted.

Green criminology also highlights the disproportionate impact of environmental harm on marginalized communities. Rural populations, indigenous communities, and economically disadvantaged groups frequently suffer the most from environmental degradation because they rely heavily on natural resources for their livelihoods. Therefore, environmental crimes are not merely ecological issues but also raise significant concerns about social justice and human rights.

2. The Concept of Ecocide and Its Relevance to India

The concept of **ecocide** refers to severe and widespread destruction of ecosystems that significantly disrupts environmental stability and human well-being. Environmental scholars and activists have advocated for the recognition of ecocide as an international crime comparable to genocide or crimes against humanity.⁹ The debate surrounding ecocide emphasizes the need for stronger legal accountability mechanisms for large-scale environmental destruction caused by corporations or governments.

In India, several environmental incidents could be analyzed through the lens of ecocide due to the extensive ecological damage they caused. Industrial disasters, large-scale deforestation, and illegal mining operations have led to irreversible environmental consequences in many regions. One of the most well-known examples is the Bhopal Gas Disaster (1984), which exposed the devastating environmental and human health impacts of industrial negligence.¹⁰ Although the incident led to legal reforms and compensation mechanisms, critics argue that accountability for environmental damage remained limited.

Similarly, illegal mining operations in states such as Karnataka and Goa have caused severe ecological damage, including deforestation, soil erosion, and water contamination. These cases illustrate how environmental harm can reach levels that resemble ecocide, particularly when ecosystems are permanently altered or destroyed.

Despite these realities, the Indian legal system does not explicitly recognize ecocide as a criminal offense. Environmental laws typically focus on regulatory compliance, penalties, and compensation rather than criminal accountability for large-scale environmental destruction. Consequently, incorporating the concept of ecocide into environmental law discussions may strengthen legal frameworks aimed at preventing severe ecological harm.

3. India's Environmental Legal Framework

India has developed a comprehensive environmental regulatory framework over the past several decades. These laws aim to control pollution, conserve natural resources, and promote sustainable development.

⁸ Rob White, *Environmental Harm: An Eco-Justice Perspective* (Policy Press, 2013), available at: <https://policy.bristoluniversitypress.co.uk/environmental-harm> (last accessed on 13 March 2026).

⁹ Stop Ecocide Foundation, *Independent Expert Panel for the Legal Definition of Ecocide*, available at: <https://www.stopecocide.earth/legal-definition> (last accessed on 13 March 2026).

¹⁰ Government of India, *Bhopal Gas Leak Disaster (Processing of Claims) Act, 1985*, available at: <https://legislative.gov.in> (last accessed on 13 March 2026).

Table 1: Major Environmental Laws in India

Law / Act	Year	Purpose
Environment (Protection) Act	1986	Provides a comprehensive framework for environmental protection and improvement.
National Green Tribunal Act	2010	Establishes a specialized environmental court for the effective and expeditious disposal of cases.
Biological Diversity Act	2002 (Amended 2023)	Conserves biological resources and regulates access to them to ensure equitable sharing of benefits.
Forest (Conservation) Act	1980 (Amended 2023)	Regulates the diversion of forest land for non-forest purposes to maintain ecological balance.
Plastic Waste Management Rules	2016 (Amended 2022)	Regulates plastic waste management, including the phase-out of single-use plastics.
E-Waste Management Rules	2022	Governs electronic waste disposal and recycling, introducing Extended Producer Responsibility (EPR).

The table demonstrates that India possesses a diverse set of environmental laws designed to address multiple ecological concerns, including pollution control, biodiversity conservation, and waste management. The Environment (Protection) Act, 1986 serves as the umbrella legislation empowering the central government to implement environmental regulations and standards.¹¹

The National Green Tribunal (NGT) has further strengthened environmental governance by providing a specialized judicial forum for environmental disputes. The tribunal allows individuals and communities to seek compensation and remedies for environmental damage.¹²

Recent legislative developments such as the Biological Diversity (Amendment) Act, 2023 and the Forest (Conservation) Amendment Act, 2023 reflect efforts to modernize environmental governance while balancing economic development and conservation priorities.¹³ However, critics argue that certain amendments may weaken environmental safeguards by facilitating infrastructure projects and commercial activities in ecologically sensitive areas.

Overall, while the legal framework appears comprehensive, its effectiveness largely depends on enforcement capacity and regulatory oversight.

4. Institutional Mechanisms for Environmental Enforcement

Environmental governance in India involves multiple institutions responsible for implementing environmental laws and monitoring compliance.

Table 2: Key Environmental Institutions in India

Institution	Function
Ministry of Environment, Forest and Climate Change (MoEFCC)	The primary agency for policy formulation , planning, and coordinating environmental and forestry programs at the national level.
Central Pollution Control Board (CPCB)	Responsible for monitoring pollution levels , setting technical standards for air and water quality, and advising the Central Government.
State Pollution Control Boards (SPCBs)	Focuses on the ground-level implementation of pollution control measures and issuing "Consent to Operate" for industries.
National Green Tribunal (NGT)	A judicial body dedicated to the adjudication of environmental disputes , ensuring faster disposal of cases related to environmental protection.

¹¹ Environment (Protection) Act, 1986, available at: <https://legislative.gov.in/sites/default/files/A1986-29.pdf> (last accessed on 13 March 2026).

¹² National Green Tribunal Act, 2010, available at: <https://legislative.gov.in/sites/default/files/A2010-19.pdf> (last accessed on 13 March 2026).

¹³ PRS Legislative Research, *Biological Diversity (Amendment) Act, 2023* and *Forest (Conservation) Amendment Act, 2023*, available at: <https://prsindia.org> (last accessed on 13 March 2026).

These institutions form the backbone of India's environmental governance structure. The MoEFCC plays a central role in policy formulation and regulatory oversight, while the CPCB and SPCBs monitor pollution levels and enforce environmental standards at national and state levels.¹⁴

The National Green Tribunal has significantly improved environmental dispute resolution by providing faster adjudication compared to traditional courts. Since its establishment in 2010, the NGT has issued several landmark judgments addressing air pollution, illegal mining, and industrial pollution.

However, institutional coordination remains a challenge. Overlapping jurisdiction among regulatory bodies sometimes leads to bureaucratic delays and enforcement gaps. Additionally, state pollution control boards often face shortages of technical staff and financial resources, which limits their ability to monitor industrial compliance effectively.

5. Key Enforcement Challenges in India

Despite the existence of strong environmental laws and institutions, several factors continue to hinder effective enforcement.

5.1 Weak Regulatory Capacity

One of the major challenges in environmental enforcement is the limited capacity of regulatory agencies. Pollution control boards often lack adequate personnel, laboratories, and monitoring equipment to effectively track industrial pollution. This shortage of resources reduces the ability of authorities to detect environmental violations and take timely enforcement action.

5.2 Corporate Influence and Economic Pressures

Environmental regulation frequently conflicts with economic development priorities. Governments may face pressure to approve large infrastructure projects or industrial operations that generate employment and economic growth. As a result, environmental clearances may be granted despite potential ecological risks.

5.3 Legal and Procedural Delays

Environmental litigation in India often involves lengthy legal proceedings, which can delay justice and weaken enforcement outcomes. Although the National Green Tribunal was created to expedite environmental cases, challenges such as appeals, jurisdictional disputes, and compliance monitoring still persist.

5.4 Lack of Public Awareness and Participation

Public participation plays a crucial role in environmental governance. However, many affected communities lack awareness about environmental rights and legal remedies. Limited access to legal resources can prevent communities from challenging environmentally harmful activities.

6. Environmental Justice and Social Implications

Environmental harm in India often disproportionately affects marginalized populations. Rural communities, tribal groups, and economically disadvantaged populations depend heavily on natural resources for agriculture, fishing, and forestry. When environmental degradation occurs, these communities experience direct economic and health consequences. Green criminology emphasizes that environmental crimes should be viewed not only as violations of ecological norms but also as violations of social justice. Addressing environmental harm therefore requires policies that prioritize the rights and well-being of vulnerable communities.

Furthermore, environmental governance must incorporate participatory approaches that allow local communities to contribute to decision-making processes related to natural resource management.

7. The Need for Stronger Legal Recognition of Ecocide

The concept of ecocide offers an important framework for addressing severe environmental harm that goes beyond conventional regulatory violations. Recognizing ecocide as a criminal offense could enhance accountability mechanisms by imposing stronger penalties for large-scale ecological destruction.

Although India currently relies on environmental regulatory laws, incorporating ecocide-related principles into national legislation could strengthen deterrence against environmental crimes. This approach could also align India with emerging global debates about recognizing ecocide as an international crime.

¹⁴ Ministry of Environment, Forest and Climate Change, available at: <https://moef.gov.in> (last accessed on 13 March 2026).

Stronger environmental accountability mechanisms may include stricter corporate liability provisions, improved environmental monitoring technologies, and greater transparency in environmental decision-making processes.

FINDINGS AND DISCUSSION

The analysis of green criminology and ecocide within the Indian legal and environmental governance framework reveals several important findings regarding the nature of environmental harm and the limitations of enforcement mechanisms. While India has established a relatively comprehensive set of environmental laws and regulatory institutions, the practical implementation of these laws often falls short due to institutional weaknesses, administrative inefficiencies, and competing economic priorities.

A significant finding of this study is that environmental harm in India frequently extends beyond legally recognized environmental crimes. From a green criminological perspective, environmental degradation should be understood not only as violations of statutory provisions but also as harmful activities that damage ecosystems and threaten human well-being. Industrial pollution, illegal sand mining, deforestation, and hazardous waste disposal have caused severe ecological damage in several regions of the country. Judicial intervention has often played a crucial role in addressing such harms. For instance, in *M.C. Mehta v. Union of India*, the Supreme Court emphasized the importance of environmental protection and established the principle that industries causing environmental damage must bear the cost of remediation.¹⁵ This case significantly strengthened the principle of environmental accountability in India.

Another key finding relates to the persistent gap between environmental legislation and enforcement. Despite the existence of statutes such as the Environment (Protection) Act, 1986 and the National Green Tribunal Act, 2010, enforcement agencies frequently struggle with inadequate resources, insufficient monitoring systems, and limited technical capacity. Judicial decisions have repeatedly acknowledged these challenges. In *Indian Council for Enviro-Legal Action v. Union of India*, the Supreme Court held that industries responsible for pollution must compensate for environmental damage under the “polluter pays principle.”¹⁶ This judgment reinforced the idea that environmental liability should extend beyond regulatory penalties and include restoration of damaged ecosystems.

The study also reveals that economic development pressures often influence environmental decision-making processes. Large-scale infrastructure projects, mining operations, and industrial activities are sometimes prioritized in the interest of economic growth, even when they pose environmental risks. Courts have attempted to balance development with environmental protection by applying the doctrine of sustainable development. In *Vellore Citizens’ Welfare Forum v. Union of India*, the Supreme Court recognized sustainable development, the precautionary principle, and the polluter pays principle as essential components of Indian environmental jurisprudence.¹⁷ These principles have since become foundational guidelines for environmental governance in India.

Another important finding concerns the social dimensions of environmental harm. Environmental degradation disproportionately affects marginalized communities that depend heavily on natural resources for their livelihoods. Pollution, deforestation, and land degradation often lead to health risks, displacement, and loss of traditional economic activities. The judiciary has acknowledged these concerns in cases related to environmental rights. In *Subhash Kumar v. State of Bihar*, the Supreme Court recognized the right to a clean and pollution-free environment as part of the fundamental right to life under Article 21 of the Constitution.¹⁸ This decision significantly expanded the scope of constitutional environmental protection in India.

Furthermore, judicial activism has played a critical role in strengthening environmental enforcement where administrative mechanisms have been inadequate. Public Interest Litigation (PIL) has enabled citizens and environmental organizations to approach courts for protection of environmental rights. However, while courts have delivered several landmark judgments, effective implementation of these decisions remains a continuing challenge due to bureaucratic delays and limited regulatory capacity.

¹⁵ *M.C. Mehta v. Union of India*, (1987) 1 SCC 395, available at: <https://indiankanoon.org/doc/1486949/> (last accessed on 13 March 2026).

¹⁶ *Indian Council for Enviro-Legal Action v. Union of India*, (1996) 3 SCC 212, available at: <https://indiankanoon.org/doc/1937569/> (last accessed on 13 March 2026).

¹⁷ *Vellore Citizens’ Welfare Forum v. Union of India*, (1996) 5 SCC 647, available at: <https://indiankanoon.org/doc/1934109/> (last accessed on 13 March 2026).

¹⁸ *Subhash Kumar v. State of Bihar*, (1991) 1 SCC 598, available at: <https://indiankanoon.org/doc/1657326/> (last accessed on 13 March 2026).

Overall, the findings suggest that India's environmental governance framework has evolved significantly through legislative developments and judicial interpretations. Nevertheless, enforcement challenges continue to undermine the effectiveness of environmental protection measures. Incorporating the principles of green criminology into environmental policymaking could help shift the focus toward preventing environmental harm and holding responsible actors accountable for ecological destruction. Strengthening regulatory institutions, improving monitoring mechanisms, and ensuring community participation in environmental decision-making are essential steps toward addressing environmental harm and promoting ecological justice in India.

CONCLUSION

The study of green criminology and ecocide in the Indian context highlights the growing significance of addressing environmental harm through stronger legal, institutional, and policy frameworks. Environmental degradation caused by industrialization, urban expansion, deforestation, and unsustainable resource exploitation has emerged as a critical challenge for sustainable development in India. While the country has enacted a wide range of environmental laws, including the Environment (Protection) Act, 1986 and the National Green Tribunal Act, 2010, the effectiveness of these laws largely depends on their enforcement and implementation.

The analysis demonstrates that environmental harm often extends beyond legally recognized environmental crimes and frequently results from systemic issues such as weak regulatory capacity, economic pressures, and inadequate monitoring mechanisms. Although institutions such as the Ministry of Environment, Forest and Climate Change and the National Green Tribunal have strengthened environmental governance, enforcement gaps continue to hinder effective environmental protection. In many instances, environmental violations remain insufficiently addressed due to limited institutional resources and bureaucratic challenges.

From a green criminological perspective, environmental harm must be understood not only as a legal issue but also as a matter of ecological justice and social equity. Marginalized communities are often disproportionately affected by environmental degradation, emphasizing the need for inclusive and participatory environmental governance. Furthermore, the concept of ecocide provides an important framework for recognizing and addressing large-scale environmental destruction that existing regulatory mechanisms may fail to adequately capture.

Therefore, strengthening environmental enforcement mechanisms, improving regulatory capacity, and integrating green criminological perspectives into policymaking are essential steps toward achieving sustainable development. Recognizing severe environmental destruction as a serious offense and promoting greater accountability among corporations and policymakers can contribute significantly to protecting ecosystems and ensuring environmental justice in India.

RECOMMENDATIONS

To effectively address environmental harm and enforcement challenges in India, several policy and institutional measures are necessary. First, regulatory agencies such as pollution control boards should be strengthened through increased funding, technical resources, and skilled personnel to improve monitoring and enforcement capacity. Second, stricter penalties and corporate accountability mechanisms should be introduced to deter large-scale environmental violations. Third, greater public participation and community involvement in environmental decision-making processes should be encouraged to enhance transparency and accountability. Fourth, the use of advanced technologies such as satellite monitoring and environmental data systems should be promoted for better environmental surveillance. Finally, integrating the concept of ecocide into environmental policy discussions could strengthen legal responses to severe ecological destruction.

FUTURE SCOPE

The study highlights the growing importance of examining environmental harm through the lens of green criminology and ecocide. As environmental degradation continues to intensify globally, further research is essential to strengthen environmental governance and legal accountability mechanisms in India.

Future research may focus on the following areas:

- Examining the possibility of recognizing ecocide as a specific environmental crime within Indian environmental law.
- Comparative studies between India and other countries on environmental crime enforcement mechanisms.
- Analyzing the role of technology, artificial intelligence, and satellite monitoring in detecting environmental violations.
- Studying the impact of environmental crimes on marginalized and indigenous communities.
- Evaluating the effectiveness of the National Green Tribunal in long-term environmental protection.

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