

# Exploring the Landscape of Green Crime in India: A Theoretical Understanding with References to Rapid Industrialization

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**Abstract.** The Green crime, encompassing a variety of offences against the environment, has emerged as a critical global concern in the context of rapid industrialization. This theoretical paper focuses on the examination of green crime within the unique socio-economic, diverse geography and environmental landscape of India. As the nation attempts to achieve Sustainable Development Goals (SDGs) by 2030, it contends with various environmental challenges such as deforestation, pollution wildlife trafficking, and illegal resource extraction.

This article draws a theoretical framework of criminological perspectives, ecological theories, and socio-economic dimensions to comprehend the dynamics of green crime in India. Key factors such as socio-economic disparities, weak regulatory frameworks, and cultural attitudes towards the environment are some of the major contributors to green criminal activities in India. In addition, illegal mining, waste dumping in water bodies, deforestation, violation of environmental laws, and illicit trade of endangered species are also the multifaceted nature of green crime in India.

Therefore, this study inquires into case studies illustrating the examples of green crime in India and understanding the motivations behind such activities. Furthermore, the study addresses the challenges in law enforcement and regulatory mechanisms that contribute to the prevention of green crime. It analyses the effectiveness of existing legal frameworks, the role of enforcement agencies, and international collaborations in mitigating green criminal activities in India. The theoretical exploration also seeks to contribute to understanding green crime by providing insights into its root causes, manifestations, and the effectiveness of current responses. It informed the policymakers to plan interventions and strategies to enhance India's resilience in fighting green crime while fostering sustainable development.

**Keywords:** Green crime, Ecology, Economic Disparities and Regulatory Framework.

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## 1 Background

In criminology, the idea of "green crime" is a multifaceted and dynamic area that focuses on the connection between criminal activity and environmental damage. Green crime, also called eco-crime or environmental crime, is the term for illegal activities that harm the environment, break environmental regulations, or use unsustainable natural resources. Pollution is one common method by which industries emit hazardous substances into the air and water, harming ecosystems and human health. Unauthorized tree cutting is known as "illegal logging," contributing to deforestation and the disappearance of vital biodiversity. In terms of protecting wildlife, poaching and wildlife trafficking put endangered species in danger of going extinct. Overfishing and using other unauthorized techniques are examples of illegal fishing practices that deplete marine resources and disturb the functioning of aquatic ecosystems. Numerous species are at risk of extinction due to habitat damage frequently caused by land development, mining, and infrastructural developments. Corporate environmental crimes also come into play when businesses break laws on resource extraction, emissions, and waste disposal. Scholarly study emphasizes that political economy shapes criminal justice, environmental law, and crime, focusing on the influence of capitalism (Stretesky et al., 2013). An overview of the literature on environmental crime is given in a study, which additionally emphasizes the topic's theoretical and philosophical foundations and possibilities for inclusion in mainstream criminology research (Nobles, 2019). Further, the study expands on the sociological analysis of "green-collar crime," bringing environmental justice and white-collar criminology together to create a framework for analyzing the possibilities, victimology, motivations, and enforcement challenges associated with these crimes (Wolf, 2011).

Mixed findings have come from a study on the connection between green spaces and crime in metropolitan areas. While Sypion (2023) pointed out that well-designed and managed green spaces can lessen property and some violent crimes, Kuo and Sullivan (2001) discovered that greener surroundings were linked to reduced crime rates. The study emphasized the need for greater focus on the proceeds of environmental crimes and their financial motivations, particularly those about green spaces. The study recommended green areas may reduce crime rates, but careful planning and administration are essential to fully realize their potential advantages (Spapens et al., 2018). A study clarified how difficult it is to define green crimes precisely and how sophisticated scientific techniques are required (Eman et al., 2009). In response to these difficulties, the idea of Southern green criminology concentrates environmental crime in the Global South. Green crimes, which include resource extraction, pollution, and the disposal of hazardous waste, have increased due to rapid industrialization. The rapid development of the de-manufacturing sectors in China and India is leading to significant pollution and negative health effects (South, 2016). Degradation and damage to Earth's resources are directly caused by globalization (Curtin et al., 2019). In Latin America, social unrest and environmental criminality are mostly a consequence of large-scale resource exploitation and associated

industries (Goyes, 2019). Environmental crimes are primarily driven by financial motives. The growth of capitalism has an impact on criminality, justice, and environmental law (Spapens et al., 2018).

Studies analyze the different kinds of green crimes associated with rapid industrialization. It includes crime related to climate change, deforestation, resource loss of biodiversity, social and environmental and Rapid industrialization has been associated with a rise in crime and violence. especially in developing nations (Bourguignon, 1999). This is exacerbated by the pursuit of growth and minimal regulation in global resource industries, leading to environmental injustice and weak regulation (South, 2016). Literature states that the effectiveness of regulatory frameworks in mitigating green crimes resulting from rapid industrialization. It discussed challenges in enforcing environmental regulations and the potential role of corruption (Sharif and Uddin, 2023). Another study explores the social and economic consequences of green crimes associated with industrialization and discusses how these consequences may disproportionately impact marginalized communities and contribute to environmental injustice (Davies, 2014).

The study used search techniques on various literature relevant to green crime from Scopus, Web of Sciences, PubMed, ProQuest, and grey literature. The relevant literature has been studied in depth to understand the details of the facts and figures along with theoretical aspects. The thematic presentation is being provided according to the necessary doctrinal argumentations.

#### 2 Industrialization and Green Crimes

Rapid industrialization is frequently accompanied by increased pollution and emissions, including air pollutants, water contaminants, and hazardous waste. Many studies found that releasing pollutants beyond permissible levels, illegal dumping of industrial waste, and emissions violations contribute to pollution-related green crimes (Lynch et al., 2015; Lynch et al., 2017; Mondy et al., 2020). Natural resource depletion and environmental deterioration are common industrialization outcomes, which frequently depend on massive resource exploitation. Green crimes associated with resource exploitation and biodiversity loss get worse by over-exploitation of resources, unlawful logging, and unlicensed mineral mining (Zaitch et al., 2014; Brisman and South, 2018). A study shows significant changes in land use are often necessary for industrial expansion, which results in habitat degradation and deforestation. The study found green crimes include industrial habitat damage, illegal land clearing, and deforestation in protected areas (van Solinge, 2017; Flores, 2018).

Literature provides evidence that heavy industrial operations produce large amounts of waste, and the need to reduce productions lead to inappropriate disposal methods. In India, green crimes are associated with waste mismanagement systems that are caused by incorrect disposal of hazardous materials, illegal dumping of industrial waste, and insufficient waste management structure (Truelove and Mawdsley; Doron and Jeffrey, 2018). The inequitable distribution of the effects of industrialization frequently results in environmental and social injustice, with disadvantaged groups bearing a large portion of the cost. Environmental discrimination is very closely associated with underprivileged areas and deliberately harming vulnerable groups (Gill, 2016; Das, 2022). Industrial development outpaces regulatory frameworks in speed, which makes it more difficult to adequately monitor and enforce environmental rules (Bisschop, 2016). In India, green crimes are caused by regulatory violations, corruption, and a lack of investigation, as certain industries take advantage of supervision and accountability weaknesses (Divan and Rosencranz, 2022; Duflo et al., 2018). Global climate change is largely caused by greenhouse gas emissions, which result from industrialization. Green crimes related to climate change include breaking emissions rules, participating in deceptive carbon credit schemes, and purposefully misleading the public to the public (White, 2017; Hall and Farrall, 2013). To reduce the negative environmental effects connected to rapid industrial growth, these may include adopting stronger environmental laws, encouraging sustainable industrial practices. encouraging corporate responsibility. participating in international partnerships.

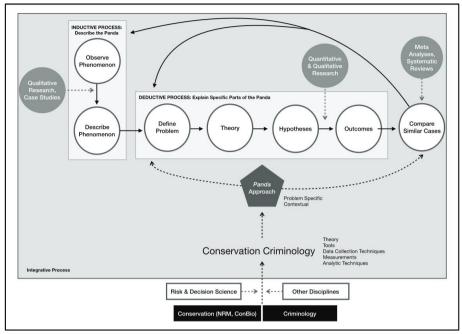
# 3 Green Criminology Theoretical Frameworks

Green criminology is a multidisciplinary field that examines environmental crimes and harms, including those against non-human nature (Nurse, 2017). Green criminology, as a field, emphasizes the need for a multi- and inter-disciplinary approach to understanding and addressing environmental crimes and harms (Nurse, 2017).

# 4 Conservation Criminology

The green criminology approach is particularly relevant in the context of illegal wildlife trade, where the use of a conservation criminology framework (Figure 1) can help to advance interdisciplinary research and inform policy development (Boratto & Gibbs, 2019).

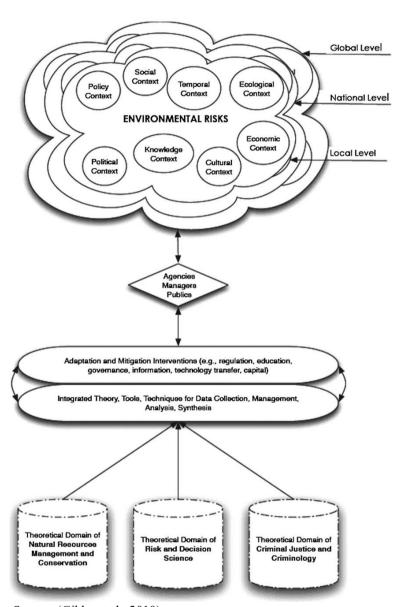
Figure 1. Conceptual framework for a conservation criminology approach to illegal wildlife trade



Source: (Boratto & Gibbs, 2019)

Conservation criminology, which integrates criminology with natural resource disciplines and risk and decision sciences, offers a conceptual framework (Figure 2) for understanding and addressing environmental crimes and risks (Gibbs et al., 2010).

Figure 2. Conservation criminology framework



Source: (Gibbs et al., 2010)

## Mutuality in Cultural Criminology and Green Criminology

Furthermore, the integration of cultural criminology into green criminology can provide a platform for exploring media representations, consumerism, and resistance to environmental harms (Brisman & South, 2014). Cultural criminologists examine how crime is portrayed in the media to determine criminalization, control, and

identity processes and how these are connected (Greer, 2009). Green criminologists develop an awareness of how environmental events are portrayed in the media. How human-environment relationships are represented. the boundaries environmental (disaster) news and entertainment, and between "real" documentaries and computer-generated documentaries, may be examined in addition to news reports about actual environmental crimes and harms (Brisman & South, 2014). The way "consumerism" has become ingrained in daily life as a "materially 'lived' ideology" that supports purchasing patterns is one aspect of the issue. We are no longer connected to nature, the cycle of life, our communities, our families, and, eventually, ourselves as a result of industrial civilization and consumerism (White, 2002). This artificial, inorganic, materialistic lifestyle, along with a discernible deterioration in the moral and ethical norms of society has given rise to a pathology that causes suffering and emptiness. Addictive behaviour is the first symptom of suffering and emptiness and consumption are the preferred temporary remedy (Shaw, 2008).

South (1998) provided an early addition to the criminology field's green agenda by offering a list of "green connections for a green criminology"—problems that scholars may look into and relate to current or developing criminological themes. In 1998, South exhorted ecologists studying criminology to pay close attention to cultural politics and the rise of novel social movements that revolved around issues of lifestyle, identity, and visionary protest.

# 5 Ecological Justice Framework

The need for justice systems is emphasized to consider ecological and species justice and explore state and corporate offending (Nurse, 2017). Environmental criminology, a related field, focuses on the role of the immediate environment in crime and seeks to understand and prevent crime through environmental analysis (Wortley & Mazerolle, 2008). Ecological justice, as discussed by Wienhues (2020), encompasses both justice to individuals and broader systems, with a focus on humans doing justice to nonhuman beings. This includes the concept of interspecies justice, which emphasizes the relational and global nature of justice between humans and nonhumans.

Wienhues (2020) and White (2013) both contribute to the understanding of interspecies justice in ecological crime. Wienhues (2020) emphasizes the need for humans to do justice to nonhuman beings, particularly in the context of the extinction crisis. This aligns with White's (2013) exploration of problem-solving courts and the range of sanctions available for environmental crimes. Both authors highlight the complexity of environmental harms and the need for innovative legal responses. Wienhues (2020) further underscores the importance of global distributive ecological justice to wild nonhuman beings, calling for a biocentric approach to conservation. Kopnina (2014) further expands on this, highlighting the need for equitable distribution of environmental burdens and benefits, as well as the inclusion of biospheric egalitarianism in environmental justice debates. Baxter (2000) integrates

the concept of ecological justice with Barry's theory of justice as impartiality, emphasizing the importance of considering the distribution of environments between life forms and the implications for the extermination of other species.

## 6 State and Corporate Offending Ecological Justice

The role of state and corporate offending in ecological and species justice is a complex and multifaceted issue. White (2012) and Hall (2018) both highlight the complicity of the state and corporations in environmental harm, with the former focusing on the tactics employed by environmental activists to resist such activities and the latter emphasizing the role of the state in facilitating these harms. Environmental activists face a range of challenges from the state, including criminalization, control of information, and the use of counter-terrorism powers (White, 2012). These tactics are often supported by the fossil fuel industry, which plays a key role in targeting and stifling climate protesters through legislation, violence, surveillance, and retaliatory lawsuits (Nosek, 2020). Elite oppositional framing is also used to vilify and stigmatize activists, leading to public harassment (Shriver et al., 2013). Despite these challenges, environmental activists continue to resist state and corporate crime, often through civil disobedience and appeals for international support (White, 2012).

#### 7 Environmental Justice and Penalties to Protect Communities

Greife (2017) provides empirical evidence of the lack of correlation between community demographics and monetary penalties for corporate environmental crimes, suggesting a lack of environmental justice in the legal system. Research on environmental crime penalties has yielded mixed findings. Almér (2010) and Billiet (2014) both found that criminal sanctions can act as a deterrent, with Almér specifically highlighting the deterrent effect of standing trial. However, Lemkin (1996) argued for more flexible sentencing guidelines for organizations, suggesting that excessively punitive penalties may not be optimally efficient for deterrence. Adler (2010) noted a trend towards stiffer penalties for environmental crimes but questioned their effectiveness in improving compliance. While criminal sanctions can be effective in deterring environmental crime, the design and implementation of these penalties require careful consideration.

#### 8 Conclusion

The study of the landscape of green crime in India, with a theoretical understanding and references to rapid industrialization, underscores the complex and multifaceted nature of environmental challenges faced by the nation. The surge in industrial activities, driven by rapid industrialization, has led to many environmental issues, ranging from pollution and resource depletion to habitat destruction. This theoretical

analysis highlights the connections between green crimes and shows how industrial growth can exacerbate different types of environmental damage. Beyond the direct effects on the environment, there are implications for communities, biodiversity, and public health. Furthermore, the theoretical framework used in this investigation reveals the root causes of green crimes and offers insights into the basic components that sustain environmental deterioration following rapid industrialization. References to rapid industrialization serve as a crucial backdrop to understanding the urgency and scale of the environmental challenges.

It emphasizes the necessity of an extensive plan considering sustainable development's ecological, social, and economic aspects. Strong enforcement mechanisms and efficient legislative and regulatory frameworks are essential to reducing the negative environmental effects of rapid industrialization. Furthermore, the theoretical framework about green crime highlights the significance of developing environmental consciousness, instruction, and activism. India can work towards a more sustainable and balanced strategy that reduces the adverse effects on the environment by integrating ecological issues into the foundation of economic development.

In the context of rapid industrialization, preventing green crime requires a comprehensive and cooperative effort from the public, private, government agencies, and civil society. India can set the stage for a more environmentally conscious and sustainable future where industrial expansion coexists harmoniously with preserving the country's diverse and rich natural heritage through incorporating theoretical insights into policy creation and implementation.

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