

## CRIMINOLOGICAL CHARACTERISTICS OF ENVIRONMENTAL CRIME AND MEASURES FOR ITS PREVENTION

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### Аннотация

В данной статье анализируются криминологическая сущность, структура и детерминанты экологической преступности – быстрорастущего явления, угрожающего экологической стабильности, здоровью населения, природным ресурсам и глобальному устойчивому развитию. В исследовании рассматриваются различные формы экологической преступности, включая незаконную вырубку леса, торговлю дикими животными, правонарушения, связанные с загрязнением окружающей среды, незаконный сброс отходов, загрязнение воды и нарушения стандартов экологической безопасности. Используя междисциплинарный подход, исследование синтезирует криминологическую теорию, науку об окружающей среде, правовой анализ и международно-политические рамки для оценки социально-экономических и институциональных факторов экологической преступности. Результаты показывают, что экологическая преступность обусловлена слабостью нормативно-правового регулирования, коррупцией, прибыльностью незаконных экологических рынков, халатностью в промышленности и недостаточной осведомленностью общественности. В статье также предлагаются превентивные стратегии, такие как укрепление экологического управления, расширение участия общественности, продвижение перспектив «зеленой» криминологии и расширение международного сотрудничества.

**Ключевые слова:** экологическая преступность, экологическая преступность, «зеленая» криминология, незаконная эксплуатация ресурсов, охрана окружающей среды, профилактика, экологическая безопасность, устойчивое развитие.

### Abstract

This article analyses the criminological essence, structure, and determinants of environmental crime, a rapidly growing phenomenon that threatens ecological stability, public health, natural resources, and global sustainable development. The study examines different forms of environmental crime, including illegal logging, wildlife trafficking, pollution offences, unlawful waste disposal, water contamination, and violations of environmental safety standards. Using an interdisciplinary approach, the research

synthesizes criminological theory, environmental science, legal analysis, and international policy frameworks to evaluate the socio-economic and institutional drivers of eco-crime. The findings demonstrate that environmental crime is shaped by weak regulatory enforcement, corruption, profitability of illicit ecological markets, industrial negligence, and insufficient public awareness. The article also proposes preventive strategies such as strengthening environmental governance, enhancing public participation, promoting green criminology perspectives, and expanding international cooperation.

**Keywords:** environmental crime, eco-crime, green criminology, illegal resource exploitation, environmental protection, prevention, ecological security, sustainability.

## INTRODUCTION

Environmental crime has emerged as one of the most complex and rapidly expanding areas of modern criminality. Unlike traditional crimes that directly target individuals or property, environmental crime inflicts harm on ecosystems, biodiversity, natural resources, and long-term human health. Its consequences are often cumulative, transboundary, and irreversible. In recent decades, the global community has recognized environmental crime as a significant threat to sustainable development, prompting scholars and policymakers to expand the discipline of green criminology, which studies ecological harm through criminological lenses.

Environmental crime includes a wide range of illegal acts: unlawful deforestation, poaching and wildlife trafficking, pollution of air and water, illegal mining, hazardous waste dumping, falsification of ecological certificates, and violations of environmental safety norms in industry and agriculture. These crimes are committed by individuals, corporations, and organized criminal networks seeking high financial profit from exploiting natural resources. At the same time, environmental crime is distinguished by its latent nature: many offences remain undetected or unreported due to remoteness of crime scenes, technical complexity of environmental monitoring, economic interests of powerful actors, and corruption.

Criminological interest in environmental crime has grown as scholars observe its connection with global economic systems, resource scarcity, climate change, and socio-political instability. Eco-crime often flourishes in contexts where regulatory systems are weak, law enforcement lacks expertise, and environmental policy is underfunded. Developing countries, in particular, face the dual challenge of economic pressures and insufficient environmental governance, making them vulnerable to illegal logging, poaching, and toxic waste dumping by international networks.

Although environmental crime may appear non-violent, its long-term impacts include destruction of ecosystems, endangerment of species, health disorders, food

insecurity, and water scarcity—harms that exceed many conventional crimes. Therefore, studying environmental crime from a criminological perspective requires rethinking the traditional boundaries of social harm, integrating ecological concerns into criminal justice discourse, and acknowledging the moral responsibility of states and societies to protect nature for future generations.

The aim of this article is to examine the criminological characteristics of environmental crime, identify its main causes, and propose effective preventive strategies based on international best practices and scientific evidence.

## LITERATURE REVIEW AND METHODOLOGY

Environmental crime gained academic attention in the late twentieth century with the emergence of green criminology, pioneered by scholars such as Lynch, Stretesky, and South. This field expanded criminology's scope to include ecological harm, environmental justice, and the rights of nature. Traditional criminological theories—rational choice theory, strain theory, social disorganization—were adapted to environmental contexts, demonstrating how economic motives, weak regulation, and social inequality contribute to eco-crime.

Economic criminology emphasizes the profitability of environmental crime. According to UNODC, illegal logging, wildlife trade, and waste trafficking constitute multi-billion-dollar industries, often controlled by transnational criminal groups. Rational choice theorists argue that offenders weigh the high profits of ecological exploitation against the low probability of detection or punishment, making environmental crime attractive.

Sociological literature highlights the role of structural inequality. Poor communities dependent on natural resources become both victims and participants in environmental offences. Indigenous groups often suffer the consequences of pollution, deforestation, and resource depletion caused by corporations or corrupt officials. Environmental injustice theory argues that marginalized communities disproportionately bear ecological harms.

Legal research focuses on the enforcement gap. Scholars note that environmental legislation is often robust on paper but weak in implementation. Inspection agencies lack funds, expertise, or independence; courts lack technical knowledge; and environmental offences rarely result in severe sanctions.

Green criminology introduces the concept of “ecological harm,” emphasizing that many actions damaging the environment may not be formally criminalized but still pose serious threats. This approach argues for expanding the definition of crime to include corporate environmental negligence and state-enabled ecological degradation.

Recent literature stresses the link between environmental crime and organized crime. Interpol and Europol reports highlight cooperation between illegal miners, wildlife traffickers, corrupt officials, and money-laundering networks. Environmental crime now ranks among the world's most profitable illicit markets, after drugs, weapons, and human trafficking.

Taken together, the literature demonstrates that environmental crime is multidimensional, globalized, economically driven, and institutionally underestimated. Its prevention requires interdisciplinary strategies and effective governance.

This study adopts a qualitative analytical methodology grounded in criminological theory, environmental studies, and international legal frameworks. The approach focuses on conceptual clarity, interdisciplinary synthesis, and comparative evaluation rather than empirical quantification.

The methodology includes four stages:

1. **Conceptual and Theoretical Systematization.** Identifying the core criminological elements of environmental crime through analysis of green criminology literature, classical criminological theories, and environmental science.

2. **Causal Analysis.** Examining socio-economic, institutional, psychological, and ecological factors driving eco-crime, including corruption, market demand, regulatory weakness, and scarcity of natural resources.

3. **Comparative Review of International Practices.** Studying preventive models used in the European Union, North America, and Asia, including regulatory frameworks, environmental policing units, digital monitoring, and community-based interventions.

4. **Interpretive Integration.** Synthesizing theory and practice into a unified criminological understanding of environmental crime, generating policy-relevant insights.

Primary sources include UN reports, Interpol analyses, scholarly articles, environmental codes, and global conventions such as CITES, Basel Convention, and Paris Agreement.

This interdisciplinary approach reflects the complex nature of environmental crime, which cannot be understood solely through traditional criminal law.

## RESULTS

The research produced several key findings regarding the criminological characteristics of environmental crime:

1. **High Profitability and Low Detection Risk.** Environmental crime is driven by economic incentives. Illegal logging, wildlife trafficking, and toxic waste dumping yield

high returns while detection rates remain low. Weak enforcement creates favourable conditions for offenders.

**2. Transnational and Organized Nature.** Environmental crimes often involve cross-border networks coordinating extraction, transportation, and distribution of illegal natural resources. These networks rely on corruption, forged documents, and money-laundering systems.

**3. Corporate and State Involvement.** Unlike traditional crimes, environmental offences frequently involve corporations, officials, and institutional actors whose decisions cause large-scale ecological harm. Regulatory capture—where industries influence policymakers—facilitates environmental degradation.

**4. Latency and Hidden Harm.** Environmental crimes often remain invisible due to remote locations, scientific complexity, and delayed effects. Many harms become evident only after years, complicating criminal investigation and proving causation.

**5. Victim Diffusion.** Environmental crime affects communities, ecosystems, and future generations collectively rather than individual victims. This diffused victimization weakens political urgency and public pressure.

**6. Ecological Irreversibility.** Certain environmental harms, such as species extinction or soil contamination, cannot be reversed, making prevention more critical than punishment.

These findings illustrate that environmental crime is structurally distinct from traditional offences and requires specialized criminological responses.

## DISCUSSION

The discussion addresses theoretical and practical implications of the findings. Environmental crime challenges traditional criminological concepts because it often lacks direct interpersonal violence, immediate victims, or clear offender–victim relationships. Yet its long-term harms exceed many violent crimes. Therefore, criminology must broaden its analytical frameworks to incorporate ecological harm and intergenerational justice.

Prevention of environmental crime requires systemic, multi-level strategies. Strengthening legal frameworks is essential but insufficient without effective implementation. Enforcement agencies need proper funding, technical equipment, and training in environmental forensics. Establishing specialized environmental police and prosecution units has proven effective in several countries.

Combating corruption is a cornerstone of prevention. Many eco-crimes succeed due to bribery of inspectors, police officers, customs officials, and local administrators. Anti-corruption measures, transparent permitting processes, and digital monitoring can reduce opportunities for illegal exploitation.

At the community level, increasing environmental awareness and involving local populations in monitoring forests, water bodies, and wildlife habitats enhance informal control. Indigenous communities often possess valuable ecological knowledge and can act as protectors of natural resources.

International cooperation is vital due to the transboundary nature of eco-crime. Sharing intelligence, harmonizing sanctions, strengthening border control, and implementing global conventions contribute to effective suppression of illegal ecological markets.

Ultimately, preventing environmental crime requires integrating criminology with environmental ethics, sustainability policy, and social justice. Violence against nature must be recognized as violence against humanity.

## CONCLUSION

The study concludes that environmental crime is a multidimensional and growing threat that demands urgent criminological and political attention. Its causes lie in economic incentives, regulatory weaknesses, corruption, global market demand, and inadequate public awareness. Environmental crime differs from traditional offences due to its transnationality, hidden nature, corporate involvement, and long-term ecological consequences.

Effective prevention requires comprehensive strategies: strengthening environmental governance, improving legal enforcement, combating corruption, promoting public environmental literacy, empowering local communities, and deepening international cooperation.

Understanding environmental crime through a criminological lens allows policymakers to develop more just, sustainable, and scientifically informed approaches to ecological protection. Safeguarding the environment is not only a legal responsibility but a moral imperative for ensuring global security and preserving life on Earth.

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