Evaluating the Concept of Green Criminology: Pathways for Ensuring Environmental Justice in Bangladesh

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Abstract: By committing crimes against nature, we are effectively perpetrating 'ecocide'. While there is a general awareness of the negative impact of environmental harm, the idea of "ecocide" within the field of criminology is rarely discussed. This study aims to introduce a green viewpoint for addressing environmental crimes. To date, the concept that environmental harm might be classified as a criminal act, with underlying socio-economic issues contributing to green crime, has not received the necessary level of attention. The paper explores the necessity of green criminology as a conceptual framework, the significance of discussing 'green crime' as a distinct concept within the field of criminology, the theoretical (criminological) perspectives that encompass green crimes, and how environmental justice can be achieved through the implementation of 'green methods'. The researchers adopt an interdisciplinary approach since the article attempts to integrate the concepts of environmental harm and environmental crime to achieve environmental justice.

Keywords: Ecocide, Criminology, Green Crime, Green Methods, Environmental Justice.

1. Introduction

To safeguard and preserve the natural environment, it is essential to undertake measures to regulate offences committed against nature. Controlling crimes against nature poses significant challenges due to various factors; one such factor is the political affiliation of the perpetrators involved in these crimes. Additionally, corporate giants often play a role in the perpetration of these offences, driven by their financial gains. Furthermore, the lack of administrative and judicial attention towards these crimes and the absence of cooperation between administrative and judicial authorities further hinder effective control measures. Moreover, the absence of an appropriate forum to address and tackle

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Michael J Lynch, 'Green Criminology and Environmental Crime: Criminology That Matters in the Age of Global Ecological Collapse' (2020) 1(1) Journal of White Collar and Corporate Crime 50.

these crimes exacerbates the difficulty in managing them.² Bangladesh has enacted a range of laws and policies with the objective of safeguarding and preserving the environment. However, these rules fail to adequately address the concept of green crime or acknowledge as green crime those behaviours that are detrimental to the natural world. Bangladesh is plagued by several significant environmental offences, including the illicit encroachment of rivers, unlawful cutting of hills, dumping of wastes in marine areas, unauthorised disposal of hazardous wastes far from its sources, unregulated brick manufacturing, violation of regulations within the ship-breaking sector, illegal deforestation, and the illicit trading and hunting of wildlife. Various entities, including individuals, corporate bodies, state-owned companies, firms, and political groups, are involved in perpetrating such criminal activities.

The emergence of new environmental challenges and concerns, shifts in social structure, and changes in human behaviour patterns have necessitated a pressing discussion of environmental issues from a criminological standpoint. Activities that victimise nature, imperil the existence of natural resources, various species, living and non-living beings, and create environmental injustice can be discussed and responded to under 'green' or 'eco'-criminology.³ Numerous activities that are legal but detrimental to the environment are not often classified as green crimes, since they occur with societal approval. They are lawful not because of their nature but because of the lack of established rules and regulations prohibiting those acts. Currently, the incidence and frequency of 'environmental crime' surpass that of other acknowledged forms of criminal activity. 4 One significant challenge about the recognition of 'green' crime or 'eco'-crime is the perception that offences committed against the environment are often seen as "victimless crimes". 5 The rationale for this assertion stems from the lack of understanding and recognition among many individuals about the concept of nature having a distinct legal identity. However, it is now widely accepted that nature can initiate legal action to protect its survival.⁶ Traditional criminological theory tends to provide a limited perspective on victimisation, but green theory seeks to provide a more comprehensive understanding of this phenomenon. Therefore, it is essential to

Md Akhtaruzzaman and Imtiaz Ahmed Sajal, 'Common People's Access to the Environment Courts of Bangladesh: An Appraisal' (2016) 15 Journal of Judicial Administration Training Institute 211.

Angus Nurse, An Introduction to Green Criminology and Environmental Justice (1st edn, Sage Publications Ltd 2016).

Demarco S Johnson, 'The Status of Green Criminology in Victimology Research' (2017) 10 (8) McNair Scholars Research Journal art 8 https://commons.emich.edu/mcnair/vol10/iss1/8 accessed 12 January 2023.

⁵ ibid.

⁶ Jeremie Gilbert and others, 'Understanding the Rights of Nature: Working Together Across and Beyond Disciplines' (2023) 51 Human Ecology 363.

Nigel South, 'Green Criminology, Environmental Crime Prevention and the Gaps between Law, Legitimacy and Justice' (2014) 65 Revija za kriminalistiko in kriminologijo 373.

enhance the conceptualization of victimisation.⁸ Whether we want to admit it or not, according to the perspective of green criminology, the primary entity affected by green crimes is Mother Nature (planet), and the perpetrators are the children of the planet (human beings).

This article is grounded in an eco-centric or biocentric perspective, which advocates for the protection of the environment as opposed to an anthropocentric standpoint. The eco-centric philosophical perspective posits that the environment is the primary entity affected by ecocide. The objective of this study is to integrate green crimes into the criminological framework. This entails using established principles and theories in criminology to better understand and address various forms and levels of green crime. Additionally, this study seeks to develop a comprehensive mechanism that incorporates a variety of remedies tailored to different kinds and severities of green crime. Ultimately, the goal is to produce effective measures that may contribute to the advancement of environmental justice. This research study proposes a complete framework for the identification and management of various categories of environmental crimes and addresses instances of environmental injustice, which is supported by the integration of criminological theories and principles. Additionally, the article explores procedures for seeking restitution in situations of environmental injustice.

2. Concept of Green Criminology

Green crime refers to acts that cause harm and injustice to the environment, ecosystems, living organisms, non-living entities, as well as numerous kinds of flora and wildlife. The field of green criminology endeavours to provide a comprehensive definition of environmental crime, identify the individuals or entities responsible for perpetrating such offences, and provide effective strategies to address and mitigate these criminal activities. Defining environmental crime involves considerable challenges. The concept of crime is developed by human beings. Among the activities which negatively impact the environment, we criminalise the acts which have less impact on the environment and overlook the acts which have potentially greater adverse impact on the environment. This classification is made by human beings for their benefit, undermining the interests

Michael J Lynch and Michael A Long, 'Green Criminology: Capitalism, Green Crime and Justice, and Environmental Destruction' (2022) 5 Annual Review of Criminology 255.

⁹ Bill McClanahan and Avi Brisman, 'Green Criminology for Social Sciences: Introduction to the Special Issue' (2020) 9 Social Sciences 170.

Michael J Lynch, Michael A Long and Paul B Stretesky, Green Criminology and Green Theories of Justice: An Introduction to a Political Economic View of Eco-Justice (Palgrave Macmillan 2019) http://link.springer.com/10.1007/978-3-030-28573-9 accessed 15 November 2023.

Angus Nurse, 'Green Criminology: Shining a Critical Lens on Environmental Harm' (2017) 3 Palgrave Communications 1.

Ragnhild Sollund, 'M J Lynch and P B Stretesky, Exploring Green Criminology: Toward a Green Criminological Revolution' (2017) 19 Punishment & Society 514.

of the environment. Now it's high time for us to develop the concept of green criminology, inserting all the environmental issues within the broader aspect.

Environmental crimes include offences committed against the natural environment, including many components such as fauna and flora. The illicit trade of timber and wildlife, unpermitted fishing activities, unauthorised import and export of compounds that contribute to ozone depletion, unlawful disposal of hazardous materials, and the introduction of alien species that disrupt biodiversity are instances of green crime.¹³ The field of green criminology aims to include offences against the natural environment within the realm of criminological study, while also examining the connections between environmental restrictions and socio-economic factors.¹⁴

Environmental crime may be categorised into two distinct forms, namely "soft" and "hard". 15 Soft environmental crimes are soft from the perspective of legal consequences, but their impact on the environment is no less than the hard ones. Soft environmental crimes include the routine polluting acts carried out by individuals in their daily lives, such as indiscriminate disposal of garbage, widespread use and improper disposal of plastic items, and the generation of large amounts of organic wastes, illegal logging, soil contamination, illegal dumping etc. 16 In contrast, hard environmental crimes encompass activities such as the illicit hunting and trading of wildlife, unlawful deforestation and timber trafficking, pollution stemming from ship-breaking operations, excessive extraction of mineral and marine resources, unauthorized sand filling, remote disposal of untreated wastes, unregulated discharge of industrial wastes, encroachment upon rivers, unstructured brick production methods, and the unlawful cutting of hills without adherence to systematic protocols. Most of the soft environmental crimes are perpetrated by common people, whereas hard environmental crimes are often orchestrated by corporate entities, sometimes referred to as "white collar criminals". When considering the incidence of criminal activities, it is seen that hard environmental crimes exhibit a significant prevalence, whereas the consequences of soft environmental crimes are characterised by their enduring nature.¹⁷

3. An Overview of the Historical Development of Green Criminology

The field of criminology has a longstanding history, but the emergence of green criminology is a more recent development. The emergence of the notion of

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Johan Bergenas and Ariella Knight, 'Green Terror: Environmental Crime and Illicit Financing' (2015) 35 SAIS Review of International Affairs 119.

⁴ Johnson (n 4).

Sherajul Mustajib Sharif and Md Kamal Uddin, 'Environmental Crimes and Green Criminology in Bangladesh' (2023) 23 Criminology & Criminal Justice 490.

¹⁶ RD White and Diane Heckenberg, *Green Criminology: An Introduction to the Study of Environmental Harm* (Routledge 2014).

¹⁷ Sharif and Uddin (n 15).

environmental crime took place at the Stockholm Declaration in 1972.¹⁸ The notion of green criminology originated in the early 1900s and garnered significant interest in the latter part of the 20th century.¹⁹ However, it was not until 1998 that Nigel South and Piers Beirne formally conceived the phrase "green criminology" in their publication in the journal "Theoretical Criminology".²⁰ The field of green criminology seeks to classify and condemn actions that are in violation of environmental laws and regulations, as well as those that harm or exploit elements of the natural environment. Numerous ideas and schools of thought have tried to provide varying definitions from diverse perspectives. The critical school of criminology offers an eco-centric viewpoint for defining environmental crime, whereas the conventional school of criminology takes an anthropocentric approach to define environmental crime.

Early studies in the field of green criminology advocated for an anthropocentric perspective as a means of safeguarding human well-being in the face of green crimes. However, there has been a shift in perspective, with a current emphasis on an eco-centric approach that recognises the victimisation of non-human entities. The conventional approach to criminology involves analysing the causal reasons behind traditional criminal behaviour, the methods of punishment used, and the societal conditions that contribute to the prevalence of crime. Green criminology diverges from conventional criminological investigations in its examination of the origins and consequences of harm, as well as the legal and social standards of damage and its effects. In their seminal work published in 1998 as part of the first Special Issue of Theoretical Criminology, South and Birnie expressed the view that the field of criminology should promptly engage in a comprehensive examination of environmental (green) crime, including it within criminological purview.²²

Pečar, a Slovenian scholar, was among the pioneering criminologists who examined the concept of environmental crime, sometimes known as 'eco-crime', from a social viewpoint. Pečar asserts that any action or process, whether of a lasting or temporary nature, that results in detrimental consequences for natural resources (such as the destruction of biological diversity, depletion of genetic resources, or disruption of ecological cycles), poses a threat to human life, and jeopardises the well-being of the planet, can be classified as an 'eco-crime'. The illicit trade of forest resources and wildlife for substantial financial gain has

¹⁸ Akhtaruzzaman and Ahmed Sajal (n 2).

¹⁹ Lynch (n 1).

Wesley Tourangeau, 'A Systems-Based Approach to Green Criminology' (2022) 30 Critical Criminology 983.

Satish C Shastri, 'Environmental Ethics Anthropocentric to Eco-Centric Approach: A Paradigm Shift' (2023) 55 Journal of the Indian Law Institute 522.

²² Tourangeau (n 20).

²³ South (n 7).

contributed to the emergence of green crime.²⁴ The lack of a well-defined notion of "green criminology" may be attributed to many factors, including the inherent ambiguities associated with environmental issues, the absence of conclusive evidence about environmental harm, and the lack of societal support for this field of study.

4. Reasons behind Environmental Crime (Green Crime)

The upliftment of green criminality is influenced by a range of social, economic, political, legal, and administrative issues.²⁵ The primary factors contributing to green crime include political connections, economic motivations, limited environmental education, insufficient understanding of environmental lack of awareness regarding environmental protection, inadequate expertise and coordination among relevant authorities, a deficiency in eco-ethics among stakeholders, and a lack of corporate social responsibility or instances of environmental injustice perpetrated by corporate entities. The absence of a sustainable strategy in economic growth also contributes to the proliferation of green criminality. ²⁶ In this context, we can establish a connection to "Durkheim's idea of anomie". According to this theory, human beings engage in a manner of consumption that leads to the emergence of environmental anomie.²⁷ The availability of environmental resources is finite, whereas human demands are boundless. To satisfy our boundless aspirations, we engage in an unsustainable exploitation of nature, resulting in environmental dysfunctionality. Durkheim additionally proposed the "social disorganisation theory", which establishes a connection between environmental victimisation and the field of political economy.

From the standpoint of Bangladesh, a nation aspiring to achieve developed status, it has embarked upon a range of development initiatives. To implement these initiatives, a significant number of forested areas have been subjected to destruction. These large-scale initiatives often neglect the impact on the health of nearby residents and contribute to the degradation of the environment.

The disparity in the allocation of wealth catalyses individuals to engage in environmental criminal activities and exploit the environment unethically. The capitalist mode of production, together with trade liberalisation and the prevailing pattern of excessive consumption, contributes to the generation of pollutants that

²⁵ Lynch, Long and Stretesky, *Green Criminology and Green Theories of Justice* (n 10).

Nurse, 'Green Criminology' (n 11).

Paolo Galizzi and Alena Herklotz, 'Environment and Development: Friends or Foes in the 21st Century?' in Malgosia Fitzmaurice, David M Ong and Panos Merkouris (eds), Research Handbook on International Environmental Law (2nd edn, Edward Elgar Publishing 2021).

Somabha Bandopadhay and Shivam Pandey, 'The Rights of Nature: Taking an Ecocentric Approach for Mother Earth' (2020) 12(4) Rupkatha Journal on Interdisciplinary Studies in Humanities 1 http://rupkatha.com/v12n408/ accessed 31 October 2023.

accelerate the overall level of pollution.²⁸ The fact that excessive production engenders environmental anomaly is supported by the "Marxist theory of production". There exist multiple factors that directly (primary environmental harm) contribute to the acceleration of green crime. Examples include the establishment and implementation of unplanned industrial projects, unauthorised brickfields that directly contribute to air pollution. Additionally, the excessive extraction of minerals and unsustainable exploitation of marine resources have a detrimental impact on the marine environment. Furthermore, the illegal trading of forest materials and the unauthorised use of woods for business purposes lead to crimes associated with deforestation.²⁹ Lastly, the illicit trading and import-export of wildlife cause harm to living beings other than humans, constituting green crimes that negatively affect the environment.³⁰ Indirect environmental impact (secondary harm) arises because of non-adherence to the established environmental norms and regulations within a certain nation. In some instances, individuals who are marginalised or economically disadvantaged may engage in activities that result in damage to the environment. This harm is often a consequence of their exploitation of natural resources to fulfill their personal needs. Due to their impoverished or disadvantaged circumstances, these individuals may not prioritise or consider the importance of environmental preservation or the maintenance of ecological integrity. Socio-economic issues play a pivotal role in facilitating the occurrence of ecocide.³¹ For instance, manufacturers are generating an abundance of luxury goods that are not essential for maintaining a healthy lifestyle. However, they actively encourage customers to purchase these items. In turn, consumers acquire and consume excessive amounts of food products, leading to the generation of an immeasurable quantity of waste. Another alarming finding is that human beings consume such a quantity of biocapacity that it cannot be replaced by nature.³² Numerous industrial enterprises engage in economic operations reliant on natural raw materials, including the import and export of such resources. These entities often use these resources excessively, disregarding the existing rules, while the government displays indifference towards enforcing such regulations.

The loss of biodiversity in Bangladesh is one of the biggest threats to the environment. This loss may be attributed to many activities, such as land degradation, as well as the illegal practices of poaching and wildlife trafficking. Furthermore, the biological diversity and ecological balance of certain naturally enriched areas in Bangladesh have been compromised due to various factors.

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²⁸ Lynch and Long (n 8).

²⁹ Bergenas and Knight (n 13).

³⁰ Ahmad Momenirad and Paricheher Ghanbari, 'The Role of Governments' Practice in the Possibility of Applying Global Jurisdiction in Dealing with Pollution and International Environmental Crimes' (2022) 6 Journal of Positive School Psychology 9812.

Tourangeau (n 20).

³² Lynch, Long and Stretesky (n 10).

These factors include the excessive strain placed on the ecology of Cox's Bazar due to the presence of Rohingya refugees, as well as the negative impact of the Rampal coal power plant on the ecology of the Sundarbans.

Bangladesh exhibits a heightened susceptibility to environmental crime because of its geographical positioning.³³ The limited understanding of the general populace regarding the ecological significance and biodiversity further contributes to this vulnerability.³⁴ Additionally, the absence of political accountability and transparency, coupled with the influence of political affiliations and economic gains, exacerbates the prevalence of environmental crime.³⁵ Numerous industries are responsible for environmental degradation because of the lack of an effective waste management system. ³⁶ To maximise their economic gains, they use strategies to mitigate the expenses associated with waste management.³⁷ Furthermore, the impact of poverty levels on the rate of environmental crime cannot be overlooked. Lastly, the inadequacy of measures employed for the prevention of environmental crime also plays a significant role in this issue. According to the World Health Organization's assessment, Bangladesh exhibits a concerning level of air pollution, surpassing other nations in the southern region in terms of air quality. This finding raises significant concerns.

5. Inefficiencies of the Environmental Court of Bangladesh to Ensure Environmental Justice

Despite the existence of dedicated forums in Bangladesh, namely the Environmental Court and Environmental Appellate Court, established under the Bangladesh Environmental Court Act 2000 (subsequently amended by the Environment Court Act 2010)³⁸ to address environmental issues, it is noteworthy that no environmental expert has been appointed as a judge in the environmental courts. Despite being a specialised court exclusively dedicated to addressing environmental disputes, the limited experience of the judges in areas of environmental matters renders this court ineffective.³⁹ The majority of judges are not trained in environmental matters.⁴⁰ It is noteworthy that despite the existence of a specialised court dedicated to environmental concerns, the appointment of

Momenirad and Ghanbari (n 30).

Omar Faruk and others, 'Victims' Perception on Environmental Crime: An Empirical Study on the Industrial Zone, Savar, Dhaka' (2012) 2 Journal of Science and Technology 175.

Nurse, An Introduction to Green Criminology and Environmental Justice (n 3).

³⁶ Faruk and others (n 34).

Nikhil Deb, 'Corporate Capitalism, Environmental Damage and the Rule of Law: The Magurchara Gas Explosion in Bangladesh' in Avi Brisman and Nigel South (eds), Routledge International Handbook of Green Criminology (2nd edn, Routledge 2020).

The Environment Courts Act (ECA), 2010.

Sharif and Uddin (n 15).

⁴⁰ ibid.

joint district judges who typically handle conventional civil or criminal cases⁴¹ to preside over this court renders this specialised forum inherently problematic.⁴² Environmental pollution is a multifaceted issue including scientific, social, and economic factors. Consequently, addressing this problem necessitates the expertise of individuals with specialised technical and scientific knowledge. However, it should be noted that no experts have been chosen by the specialised environmental court.⁴³ Given the unique characteristics of environmental issues, it is essential that the judges assigned to this court get specialized training in environmental jurisprudence, as well as in environmental standards and regulations. Furthermore, it is necessary to establish certain regulations pertaining to the admissibility of evidence.

One further factor contributing to the lack of success of the environmental court is the overreliance on the Department of Environment. 44 The general public does not have access to the environmental court; instead, the Department of Environment has been granted this privilege. 45 Furthermore, it should be noted that the environmental court is restricted from considering any complaint unless it is accompanied by an investigative report presented by inspectors from the Department of Environment. 46 However, it should be noted that this clause does not impose any time constraints concerning the submission of this report. There is an exceptional provision in the Environmental Court Act 47 regarding the direct access of individuals to the court for compensation or criminal complaint in case of failure of the inspector to submit an investigation report. However, this procedure is lengthy and complicated. For that reason, the mass community feels discouraged from seeking legal remedies.

It can be argued that entry to the environmental court is more readily available to individuals linked with the government as opposed to the general population. Bangladesh is equipped with a comprehensive array of sectoral and sub-sectoral laws and policies that are designed to safeguard and preserve the delicate equilibrium of the environment. Regrettably, the aforementioned laws do not bestow exclusive jurisdiction upon the environmental courts. In order to effectively uphold environmental justice, it is imperative to grant the environmental court extensive and inclusive jurisdiction to adjudicate all environmental offences and provide appropriate remedies. One additional obstacle to attaining environmental justice is the lack of jurisdiction of environmental courts to review administrative orders pertaining to environmental

⁴¹ ECA 2010 (n 38) s 4.

⁴² Akhtaruzzaman and Sajal (n 2).

⁴³ ibid.

⁴⁴ ibid.

⁴⁵ ECA 2010 (n 38) s 12.

⁴⁶ ibid s 7(4).

ibid provisos to ss 6(3) and 7(4).

⁴⁸ Akhtaruzzaman and Sajal (n 2).

issues.49

Furthermore, there is a lack of empirical evidence to support the interpretation of environmental issues through the lens of criminological theory. The absence of coordination and collaboration among law enforcement agencies, courts, investigative authorities, and the Department of Environment is evident. The policies and procedures pertaining to the attainment of environmental justice and the avenues through which it is pursued exhibit a multitude of complexities and deficiencies. The initial intention to create an environmental court in every district,⁵⁰ has yet to be realised. The current legislation on environmental matters is characterised by inadequate and ineffectual penalties. The limited engagement of media in matters of the environment, as well as the interference of foreign entities in Bangladesh's wildlife trade, both as consumers and facilitators, complicate law enforcement and investigative efforts. For instance, Thailand, Singapore, China, Malaysia, India, Viet Nam, Laos, and Myanmar all import wildlife from Bangladesh.⁵¹ More specifically, tiger products are imported by the United Kingdom, Germany, India, Australia, Malaysia, Singapore, Thailand, China, Hong Kong, South Korea, and Qatar.⁵²

Numerous environmental offences take place regularly in Bangladesh, and there is also a dedicated, specialised environmental court. But due to the inefficiencies of that environmental court, environmental offences are not addressed properly. Merely establishing a specialised court is insufficient in the absence of corresponding specialised rules and procedures governing its operations. The Bangladesh Environmental Court, while dedicated to expeditiously and effectively addressing environmental issues, adheres to the procedural guidelines outlined in antiquated legislation such as the Code of Civil Procedure 1908, the Code of Criminal Procedure 1898, and the Evidence Act 1872, in addition to environmental laws.⁵³ However, as discussed below, the existing norms and regulations are insufficient in addressing environmental crimes.⁵⁴

6. Impact of Green Crime

Nature cannot be tamed; if we harm nature or try to change its natural cycle, it will take its revenge in due course. There are direct (primary) effects of green criminology on the environment, and there are also indirect (secondary) effects

⁴⁹ Abul Hasanat, 'Environmental Courts in Enforcement: The Role of Law in Environmental Justice in Bangladesh' (2021) 21 Australian Journal of Asian Law 85.

⁵⁰ ECA 2010 (n 38) s 4(1).

Nasir Uddin and others, 'Exploring Market-Based Wildlife Trade Dynamics in Bangladesh' (2024) 58 Oryx 56.

Nasir Uddin and others, 'Tigers at a Crossroads: Shedding Light on the Role of Bangladesh in the Illegal Trade of This Iconic Big Cat' (2023) 5(7) Conservation Science and Practice e12952.

⁵³ ECA 2010 (n 38) ss 12, 14, 16, 20.

⁵⁴ Hasanat (n 49).

on people's lives. When any parts of the environment are damaged, the ecology of that area becomes imbalanced. This has a secondary effect on human health, since both physical and mental health depend on a healthy ecosystem. When it comes to what causes crime and how it affects people, green criminology is different from traditional criminology.⁵⁵ Green criminology originates from the destruction of the environment and affects not only humans but also other living beings. Alongside human beings, other living beings are largely dependent on the environment and become prey to human development. People who are more economically vulnerable are exposed to severe threats because of green crime.

GMOs (genetically modified organisms) and LMOs (living modified organisms) are also contributing to green crime.⁵⁶ Genetically engineered foods have a negative effect on both people who consume them and the environment at large because they change the way plants and animals grow naturally. Indigenous people are mostly disturbed by green crime as their lives and livelihoods are closely interlinked with nature,⁵⁷ but traditional criminological studies overlooked this connection.⁵⁸

The environment is the primary entity affected by green crime, resulting in the degradation of environmental health, referred to as 'ecocide'.⁵⁹ Individuals residing in local communities within underdeveloped or developing nations, as well as marginalised populations, are more susceptible to experiencing adverse environmental impacts due to their inherently disadvantaged circumstances.⁶⁰ As a result of the significant human pressures exerted on the Earth's natural systems (including the atmosphere, ecosystems, and oceans), the climate is compelled to deviate from its inherent cyclic patterns. The Global South (developing countries) has a greater degree of disadvantage in comparison to the Global North (consisting of typically wealthy countries) due to the prevalence of environmental crime.⁶¹ Bangladesh is very susceptible to environmental crimes because of its geographical characteristics, including its low-lying territory and ecologically

Wesley Tourangeau and Amy J Fitzgerald, 'Food Crime and Green Criminology' in Avi Brisman and Nigel South (eds), Routledge International Handbook of Green Criminology (2nd edn, Routledge 2020).

⁵⁵ Johnson (n 4)

David Rodríguez Goyes and others, 'Southern Green Cultural Criminology and Environmental Crime Prevention: Representations of Nature Within Four Colombian Indigenous Communities' (2021) 29 Critical Criminology 469.

Nurse, 'Green Criminology' (n 11).

Nigel South, 'Green Criminology: Reflections, Connections, Horizons' (2014) 3 International Journal for Crime, Justice and Social Democracy 5.

Angus Nurse, 'Environmental Justice and the Rights of Indigenous Peoples' in Avi Brisman and Nigel South (eds), Routledge International Handbook of Green Criminology (2nd edn, Routledge 2020).

Sarker Faroque and Nigel South, 'Law-Enforcement Challenges, Responses and Collaborations Concerning Environmental Crimes and Harms in Bangladesh' (2022) 66 International Journal of Offender Therapy and Comparative Criminology 389.

delicate location. For instance, the coastal regions of Bangladesh are prone to natural disasters such as cyclones, storm surges, and floods. These disasters can lead to environmental crimes, as individuals and groups may exploit the chaos and weaken regulatory mechanisms during such times to engage in illegal activities such as unauthorised resource extraction and land grabbing. Moreover, crimes and recidivism in the coastal area mostly occur due to floods and floods engender an array of other crises and crimes such as river erosion, damaged embankments, damaged standing crops, and infrastructures in the coastal areas.

Green crimes have significant implications for society, the economy, and the security of the state.⁶⁴ The potential effects may manifest in several ways, including direct or indirect consequences, localised or transboundary ramifications, immediate or prolonged durations, and impacts that are either individual or cumulative. The interaction between human beings and the natural ecosystem cycle is characterised by a strong intensity and a significant level of reliance.⁶⁵ The emerging and expanding worry pertains to the significant influence on national and international security systems resulting from ecological stress and the disruption of natural cycles and relationships. The preservation of natural resources and maintenance of ecological balance are crucial factors for ensuring national security.

7. Method of Addressing Environmental Harm

Numerous extant theories within the field of criminology seek to address diverse categories of criminal behaviour. Two of the theories that can be discussed are "Deterrence theory" and "Rational Choice theory". The concept of deterrent theory is rooted in the principles of utilitarianism, while rational choice theory is grounded in economic theory. 66 Deterrence theory aims to reduce crime rates by imposing punitive measures for criminal offences and seeks to dissuade individuals from engaging in criminal behaviour by instilling a sense of fear regarding the potential consequences of such actions. A correlation exists between "deterrence theory" and "social learning theory". 67 The enhancement of social learning is facilitated by punishment and legal sanctions in accordance with the principles of the deterrent theory. The social learning theory operates within both formal and informal contexts to discourage criminal behaviour. In contrast, the

Paul Benjamin, 'Making Environmental Degradation a National Security Issue Puts Peace and Security at Risk' (Cato Institute 2000) http://www.jstor.com/stable/resrep04903 accessed 24 March 2024.

Mohammad Shahjahan, 'Disaster and Crime in the Coastal Area of Bangladesh: A Study on Police Activities' (2024) 7 Journal of Clinical and Laboratory Research 01.

⁶³ ibid.

Galizzi and Herklotz (n 26).

Ronald L Akers, 'Rational Choice, Deterrence, and Social Learning Theory in Criminology: The Path Not Taken' (1990) 81(3) Journal of Criminal Law and Criminology 653.

⁶⁷ ibid.

reasonable choice theory can be understood as an elaboration of the deterrence theory⁶⁸, as it aims to educate individuals about the potential outcomes of their actions and encourages them to make decisions based on reasonable considerations.

Another approach to crime prevention is the "situational crime prevention strategy", which seeks to eliminate the circumstances that facilitate the commission of criminal acts.⁶⁹ Social control theory removes social disorganisation and emphasises social learning, which increases self-control and reduces anti-social activities. Control can manifest in various forms, including direct control, which involves the imposition of punishment or the fear thereof; indirect control, which occurs when criminal behaviour causes grief and distress to the individual's loved ones; internal control, which is achieved through the individual's conscience; and control through the fulfilment of needs. Another recognised theory is the "reformative theory", which aims to modify the behaviour of offenders. Reformative theory is seen as highly compassionate due to its focus on the individual offender. By employing social treatment, education, and fostering awareness of the offender's behaviour, this theory aims to facilitate their transformation into a law-abiding member of society.

The use of preventive methods is the most effective approach to addressing environmental crime.⁷⁰ There are several acknowledged forms of preventive methods. For instance, one approach to crime prevention is "deterrence by law enforcement authority", which involves the prosecution and punishment of the offenders. Another method is "welfare crime prevention", which aims to address the social factors that contribute to criminal behaviour. Additionally, there is "development crime prevention", which focuses on shaping the attitudes and behaviours of adolescent criminals. "Community crime prevention" aims to foster a community-wide stance against crime, while "environmental-situational crime prevention" seeks to reduce environmental crime through surveillance and the implementation of an environmental management system. Out of the abovementioned preventative methods, the "environmental-situational" approach emerges as the most appropriate strategy for deterring green crime. The inclusion of public involvement and participation in natural resource management may serve as a valuable tool in the prevention of eco-crime.⁷¹

From Bangladesh's perspective, green crimes should be brought under a

ibid.

Christina Burton, Devin Cowan and William Moreto, 'Wildlife Crime: A Situational Crime Prevention Perspective' in Avi Brisman and Nigel South (eds), Routledge International Handbook of Green Criminology (2nd edn, Routledge 2020).

Nurse, 'Green Criminology' (n 11).

Jona Razzaque, 'Human Rights to a Clean Environment: Procedural Rights' in Malgosia Fitzmaurice, David M Ong and Panos Merkouris (eds), Research Handbook on International Environmental Law (2nd edn, Edward Elgar Publishing 2021).

"strict legal definition"⁷² and the impacts arising out of green crimes should be seen from a "broader harm perspective"⁷³. Acts and omissions that are contradictory to green laws or policies must be interpreted taking into account the "motive" behind and "financial gain" arising out of those acts or omissions. Activities constituting green harm (intentional behaviour and criminal negligence) are not seen as crimes, and hence, proper responses are not given as required. Considering this matter, all stakeholders must modify their daily practices and attitudes towards the environment, as well as reassess the approaches to conserving nature.

The primary legal mechanisms in Bangladesh for addressing various environmental issues are the Bangladesh Environment Conservation Act of 1995 and the Conservation Rules of 1997. However, these tools have proven insufficient in guaranteeing genuine environmental justice. The current legal statutes and practices do not include the phrase 'green crime' within their conceptual framework. Bangladesh is equipped with an extensive array of around 200 laws, regulations, and around 30 policies, Action Plans and strategies on environmental affairs. Additionally, the country has shown its commitment to global environmental governance by being a signatory to roughly 25 international treaties and conventions. The efficacy of conventional punitive measures in deterring environmental offences is limited due to their ineffectiveness in influencing the behaviour of corporate entities, which are mostly unaffected by such measures.

8. Need for Conservation Criminology

The emergence of "conservation criminology"⁷⁶ may be attributed to the shortcomings of the current criminal justice system. In the context of the southern countries, such as Bangladesh, it is evident that the conventional criminal justice system inadequately addresses environmental concerns. From the perspective of the victims, it is evident that a significant portion of them possess little knowledge about environmental crimes. Many victims are unaware of their legal entitlement to pursue legal action against perpetrators of green crimes. Furthermore, their lack of understanding in the field of environmental legislation and regulations is evident.

Grant Pink and Rob White, 'Collaboration in Combating Environmental Crime – Making It Matter' in Grant Pink and Rob White (eds), Environmental Crime and Collaborative State Intervention (Palgrave Macmillan UK 2016) http://link.springer.com/10.1007/978-1-137-56257-9 accessed 15 November 2023.

⁷³ ibid.

⁷⁴ Faroque and South (n 61).

⁷⁵ Lynch and Long (n 8).

Michael J Lynch and others, Green Criminology: Crime, Justice and the Environment (University of California Press 2017).

White and Heckenberg (n 16).

The Department of Environment is ineffective in raising public awareness of the consequences of environmental damage and the legal recourse available to those affected by such damage. Identifying the culprits of green crimes, unlike other forms of criminals, presents considerable challenges. Due to the inherent challenges associated with immediate traceability, environmental crimes pose significant difficulties in terms of detection and attribution.⁷⁸ Sometimes individuals engage in activities that are detrimental to the environment; however, the consequences of these actions may only become apparent many years later. Conventional criminal activities pose significant challenges for society, whereas green crimes pose a grave threat to the very foundations of our existence. For that reason, it is imperative to establish a comprehensive categorisation of environmental crimes, namely by including the concept of "ecocide" and integrating the field of conservation criminology within the realm of standard criminological research.⁷⁹ There is a potential for the emergence of a new field of inquiry known as "green victimology", which would focus on investigating the rights of those affected by green crimes. The rationale behind prioritising green victimology lies in the historical marginalisation of victims of green crimes, although the repercussions of such crimes affect all living and non-living entities indiscriminately.

Bangladesh has implemented an array of environmental laws and regulations aimed at safeguarding different aspects of the environment. However, it should be noted that the above-stated laws do not include provisions for the criminalisation of the specific activities that are forbidden within their scope, nor do they establish any direct connection or integration with the criminal justice system. If the criminalisation of these activities had been implemented, individuals would likely comply, since humans, particularly in impoverished countries such as Bangladesh, prefer to adhere to norms that carry legal penalties. The psychological element of the offender plays a significant role in the commission of many types of crimes. In the context of green crime, "behaviourism" emerges as a prominent feature influencing its origination. From this standpoint, it is imperative to include the principles of environmental justice within the framework of the criminal justice system. 80

Drawing upon the concept of crime as outlined in section 4(1)(o) of the Code of Criminal Procedure 1898, it is plausible to designate 'ecocide' as a term including all crimes or omissions that warrant punishment under environmental legislation. When considering the environment, the act of polluting it in different ways is seen as an environmental crime. However, it is important to provide a

Phoebe Okowa, 'Responsibility for Environmental Damage' in Malgosia Fitzmaurice, David M Ong and Panos Merkouris (eds), Research Handbook on International Environmental Law (2nd edn, Edward Elgar Publishing 2021).

⁷⁹ Lynch and others (n 76).

⁸⁰ Sollund (n 12).

broad interpretation of that term. Pollution encompasses more than mere contamination; it encompasses the alteration of natural resources, the excessive and unregulated use of these resources, and the undue exploitation of nature for human gain. Furthermore, it should be noted that not all actions, including green crimes, necessarily align with the conventional framework of criminal theory. Therefore, it is imperative to broaden the scope of green crimes. Another problem of defining green crime is that the definition of green crimes cannot always be conclusive. Therefore, there should be a scope of inclusion of new criteria based on future new and changed scenarios. Because the environment and its associated phenomena undergo continuous changes over decades.

9. Eco-centric Approach to Combat Green Crime and to Ensure Environmental Justice

Perpetrators of environmental crimes often use an anthropocentric defensive strategy, which prioritises human needs and interests while seeking to save the environment. They engage in the exploitation of the environment for their gain, driven by greed, while justifying their actions under the guise of "anthropocentric practices". In contrast, the eco-centric approach prioritises the conservation of the environment based on its inherent worth.84 This philosophical perspective advocates for the safeguarding of the environment above the excessive demands of human beings, thereby aiming to prevent acts that harm the natural world.85 The eco-centric perspective is rooted in the belief that the environment has intrinsic worth, hence safeguarding humans, as well as other living and non-living entities, from the harmful impacts of green crimes. This method might be associated with the "public trust doctrine", where the assertion that human beings do not possess an inherent exclusive claim or ownership over natural resources is made.86 We must refrain from engaging in the exploitation of these resources in a way that would result in the degradation or depletion of their inherent character and quality. As individuals, we have the responsibility of managing and preserving all natural resources in our capacity as trustees.87 This stewardship is guided by the "concept of efficient use", which necessitates that we refrain from modifying the inherent or intrinsic characteristics of these resources.88

81 Abdullah Al Farooque, *Environmental Law: Global and Bangladesh Context* (1st edn, New Warsi Book Corporation 2017).

⁸² Lynch (n 1).

⁸³ Momenirad and Ghanbari (n 30).

Shastri (n 21).

⁸⁵ David Molina-Motos, 'Ecophilosophical Principles for an Ecocentric Environmental Education' (2019) 9 Education Sciences 37.

⁸⁶ Sharif and Uddin (n 15).

Alfred P Rubin, 'In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity' (1992) 16 The Fletcher Forum of World Affairs 172.

⁸⁸ John M Reilly, 'Green Growth and the Efficient Use of Natural Resources' (2012) 34 Energy Economics S85.

To achieve environmental justice, it is imperative to effectively manage the environment in a manner that promotes sustainability.⁸⁹ For sustainable management of the environment, an eco-centric approach can be the best method. Because eco-centric philosophy promotes life-centred outlooks which include both human and nature. 90 To uphold fairness towards the natural world, it is imperative to recognise the distinct existence of nature independent of human beings. The basic components of the environment, especially forest, river, and mountain, should have the right to be recognised as a separate (autonomous entity) and integral part of the ecosystem.⁹¹ Eco-centrism recognises the inherent sacredness of nature⁹², advocates for the rights of nature, and the preservation of the environment based on its intrinsic moral worth. 93 The notion of the "rights of nature" is based on the belief that nature has its intrinsic value. Nations that possess a wealth of cultural heritage recognise the intrinsic rights of nature due to its inherent integration within their societal fabric. 94 However, affluent nations have the belief that nature exists to serve humanity. 95 The utilisation of natural resources is being carried out at an unsustainable rate to fulfil human-centric needs and wants. It is noteworthy that a significant portion of environmental legislation prioritises the instrumental value of nature rather than its intrinsic worth. 66 Eco-centric approach advocates environmental jurisprudence, and environmental jurisprudence promotes the rights of nature. To ensure environmental justice, the concept of environmental jurisprudence must flourish.

This writing centers on the concept of "eco-centrism" or "biocentrism", which posits that humans, animals, and the biotic system are distinct elements within an ecosystem, each possessing their inherent worth. According to "the theoretical framework of victimology", it is posited that not only human beings, but also animals, non-human species, and the environment itself might be considered victims. According to "the principles of biocentrism", all human actions that disturb the natural balance of ecology and ecosystems may be classified as ecocide. Anthropogenic environmental activities are shown to have a greater impact on the occurrence of green crime⁹⁷ whereas eco-centrism is a potentially optimal strategy for promoting genuine environmental justice and combating acts of ecological harm. Ecocentrism enriches the biocapacity, which is beneficial to

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By Duncan French, 'Sustainable Development' in Malgosia Fitzmaurice, David M Ong and Panos Merkouris (eds), Research Handbook on International Environmental Law (2nd edn, Edward Elgar Publishing) ch 3.

⁹⁰ Shastri (n 21).

⁹¹ Gilbert and others (n 6).

⁹² Molina-Motos (n 85).

⁹³ Shastri (n 21).

⁹⁴ Bandopadhay and Pandey (n 27).

⁹⁵ Carmen Gonzalez, 'Environmental Justice, Human Rights, and the Global South' (2015) 13 Santa Clara Journal of International Law 151.

⁹⁶ Bandopadhay and Pandey (n 27).

⁹⁷ Faroque and South (n 61).

all living beings, whereas anthropogenic factors have the reverse effect.

10. Tools to Ensure Environmental Justice

There is a pressing need for the establishment of a comprehensive "green justice" framework that accords equal importance to both geological and biological concerns, alongside human interests. To maintain ecological justice, it is imperative to provide fairness for all species. ⁹⁸ The concept of 'species justice' necessitates the establishment of a uniform environmental norm that applies to all species on the planet. ⁹⁹ The ecological cycle system is contingent upon the harmonious coexistence of all species, while the survival of both living and non-living entities is reciprocally reliant on a healthy environment. To uphold principles of environmental justice, it is imperative to establish a comprehensive redress mechanism that encompasses all living and non-living entities. ¹⁰⁰

To achieve environmental justice, it is essential to ensure equitable distribution of both advantages and disadvantages that arise from natural resources and ecosystems. 101 When identifying the individuals responsible for engaging in green crime, it is imperative to refrain from making any discriminatory distinctions based on factors such as the level of development of nations or the temporal division between current and future generations. To promote environmental justice, in addition to the implementation of green regulations and policies, active public engagement in the decision-making process, solicitation of public input during the establishment of environmental laws, involvement of the public in the implementation of these laws, and provision of opportunities for the public to voice concerns regarding environmental offenses can serve as effective and viable mechanisms. 102 In the specific context of Bangladesh, it is crucial to emphasise the active participation and engagement of residents residing in ecologically diverse regions (such as Saint Martin's and Sonadia islands, Sundarbans, Cox's Bazar, Tanguar Haor (wetland), Hakaluki Haor (wetland), Marjat Baor (wetland), and Piyain River in the northeastern district of Sylhet)¹⁰³. This inclusive approach is essential prior to undertaking any initiatives or actions that are linked to or may potentially affect the natural environment, as it can effectively guarantee the attainment of genuine environmental justice.

The loss of biodiversity, resulting from land degradation, poaching, and

⁹⁸ McClanahan and Brisman (n 9).

⁹⁹ David Rodriguez Goyes, Southern Green Criminology: A Science to End Ecological Discrimination (1st edn, Emerald Publishing Limited 2019).

¹⁰⁰ Gilbert and others (n 6).

¹⁰¹ Rubin (n 87).

¹⁰² Razzaque (n 71).

¹⁰³ HS Mozaddad Faruque, Md Masudur Rahman and SM Atikullah, 'Classification Of Wetlands Of Bangladesh' (Ministry of Water Resources, Government of the People's Republic of Bangladesh 2016) vol 1.

wildlife trafficking, stands as a significant contributor to the occurrence of green crime. Biodiversity is intricately linked to the prevalence of genetic resources. Indigenous and ethnic communities contain a wealth of information on genetic resources. ¹⁰⁴ In order to safeguard biodiversity and address environmental offences, the involvement of indigenous tribes in the decision-making process pertaining to the environment and the use of the knowledge held by ethnic groups might serve as a potent strategy. This active engagement and utilisation of indigenous knowledge may significantly contribute to the promotion of green justice. ¹⁰⁵ In the context of Bangladesh, the indigenous populations residing in the Chittagong Hill Tracts region have the potential to significantly contribute towards the preservation of the evergreen tropical forest.

Merely focusing on the advancement of the criminological notion is insufficient; it is important to concurrently foster the development of crime prevention methods. The implementation of a preventive or disruptive enforcement mechanism, coupled with a restorative type of justice, may be the most effective approach to addressing green crime. The implementation of preventive mechanisms may effectively regulate the behaviours that contribute to green crime, while the use of restorative justice approaches can address and rectify the environmental harms via the adoption of green initiatives. The Department of Environment now employs mechanisms to address environmental offences, such as the Environmental Court. However, these mechanisms operate under the traditional model of policing. The degradation of the environment has a detrimental impact on both the ecological integrity and the fundamental rights of individuals, hence impeding the achievement of environmental justice. The ecocentric approach to environmental protection prioritises the environment and posits the principle of safeguarding it based on its inherent worth.

Bangladesh's constitution imposes a responsibility upon individuals to safeguard the environment. The provisions outlined in Articles 18, 23, 23A, 24, 25, 27, 31, 32, 42, and 145A of the Constitution may be seen as directly or indirectly addressing the issue of environmental protection. Article 18A is a clear provision that emphasises the state's commitment to "actively safeguarding and enhancing the environment, as well as preserving and protecting natural resources, including biodiversity, wetlands, forests, and wildlife, for both current and future generations". The High Court Division also places significant emphasis on the protection of the environment, as seen by its many judgements. ¹⁰⁶ The essential rights of "right to life" and "personal liberty" are guaranteed under Article 31 and 32 of the Bangladesh constitution. The Supreme Court of Bangladesh has consistently ruled in many cases that the right to life includes the

¹⁰⁴ Goyes and others (n 57).

¹⁰⁵ ibid.

¹⁰⁶ Sharif and Uddin (n 15).

right to a healthy environment. 107

While environmental crime may have local or regional origins, its influence extends globally.¹⁰⁸ Therefore, to address and prevent green crime on a global scale, the implementation of national laws becomes imperative. However, the national criminal justice system, particularly in the global south, is insufficient in addressing and reducing this illegal activity.¹⁰⁹

According to Section 34 of the Police Act of 1861, law enforcement officials have the authority to apprehend those involved in actions that pose a threat to the environment. The Bangladesh police have been granted authority under the Special Powers Act of 1974 to conduct investigations into instances of wildlife trafficking. Bangladesh has implemented several sectoral laws aimed at safeguarding different aspects of the environment. These include the Wildlife (Conservation and Safety) Act of 2012, the Control of Brick Burning Act of 2013, the Open Space Act of 2000, the Bangladesh Climate Change Trust Fund Act of 2010, the Disaster Management Act of 2012, the Bangladesh Water Act of 2013, and the National River Protection Commission Act of 2013. 110 However, it is evident that the existing legislation mostly addresses isolated issues, exhibiting a lack of coordination and interconnectedness. Moreover, these laws are deemed insufficient in effectively combating environmental crimes of relevance. The implementation of this legislation lacks centralised authority. These rules exhibit an information gap and a deficiency in their enforcement policy. Furthermore, it is important to note that the aforementioned statutes do not render the conduct forbidden therein as criminal offences, nor do they establish any kind of connection or interaction with the criminal justice system. If the prosecution of these activities had been implemented, individuals would likely comply, since humans, particularly in underdeveloped nations like Bangladesh, prefer to adhere to norms that carry criminal penalties.

11. Conclusions

An eco-friendly model city (state in broad aspect) can be the best solution to mitigate or combat green crime where sustainable utilisation of natural resources will be ensured and development mechanism will be undertaken in a sustainably balanced way and most importantly where all the stakeholders (community, corporate body, political body) will be conscious about the conservation of green resources. The interdependence of nature and humanity necessitates that any undue strain placed upon the natural environment would elicit a retaliatory

¹⁰⁷ Momenirad and Ghanbari (n 30).

¹⁰⁸ Mwenda Kailemia, 'Problem-Oriented Policing of Transnational Environmental Crimes: A Social Harms Approach' (2019) 43 International Journal of Comparative and Applied Criminal Justice 145.

¹⁰⁹ Faroque and South (n 61).

¹¹⁰ Farooque (n 81).

response in the form of diverse natural catastrophes and tragedies. In this context, the conventional justice system cannot guarantee environmental justice, thereby necessitating the implementation of novel judicial measures that prioritise ecological sustainability. Flourishing the concept of environmental jurisprudence is a prerequisite to ensure environmental justice.

The state must ensure the optimal use and proficient administration of environmentally sustainable resources. A meticulously devised approach, aligned with criminological theory and including an understanding of social patterns and behaviours, has the potential to effectively manage 'eco'-crime, therefore promoting sustainable development and improving the overall quality of life. In addition to regulatory measures, the implementation of green campaigns aimed at raising awareness among the general population might prove to be a valuable and worthwhile endeavour. The provision of public access to green solutions has the potential to enhance the effectiveness and efficiency of existing green laws and programs. Given the cumulative character of green crimes, it is imperative for the current generation, which has the responsibility of safeguarding the interests of future generations, to jointly take measures to preserve the environment. It is also essential to establish a green culture in which individuals demonstrate a profound regard and responsibility for the natural environment. Considering "green behaviourism", this paper has tried to integrate green theories of justice with the criminal justice system, where the notion of green criminology is focused.

However, adequacy of laws and penal provisions, conceptualising the green crimes, and criminological aspect of environmental crimes cannot ensure environmental justice unless and until there is a public understanding of the value of ecology, eco balance, biodiversity, wildlife, and most importantly green life.