



CRIMINAL LIABILITY AND JURISPRUDENTIAL PERSPECTIVES ON GREEN COLLAR CRIMES: A LEGAL ANALYSIS OF ENVIRONMENTAL OFFENCES

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Abstract

The environment is a living and integrated realm which reflects the fundamental existential values of humanity. For millennia, the relationship between human civilization and the environment has been marked by reciprocity and sustained involvement. However, the advent of modernization and growing global advancement has triggered an unprecedented utilization and degradation of ecological assets to such an extent that humanity's very own survival is at threat, and, contributing to the rise of a range of "environmental crimes". Environmental crimes exert profound negative repercussions on the frameworks of human life, ecological life forms, planet and future generations. It has been acknowledged both at national and international level that human well-being and development cannot be achieved in the absence of sustainable and balanced environment. This paper explores the concept and evolution of environmental crimes, delineating the various types encompassed within the domain of such crimes. It examines the legal framework governing the green collar crimes at the domestic and international level and analyses the role of judiciary in shaping the environmental governance.

Keywords: *Green Crimes, Environmental Law, Article 21, Legal Criminal Accountability, International Cooperation, Balanced Growth.*

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I Introduction

FROM the beginning of the recorded history, Military engagements and hostilities of all kinds has played a major role in leaving a deep and lasting impact on environment.¹ However, these hazards arise not only during armed conflicts but also during peacetime, through excessive carbon dioxide emissions, deforestation, pollution contaminating natural resources, dumping of hazardous waste into water bodies and unsustainable extraction of natural resources.² In the past century, industrial and economic growth have always been at the forefront, due to which there is a continual exploitation of environment which now poses serious threat to the whole of ecosystem.

Prior to 1960s, environment law was not recognized as a distinct legal discipline neither at domestic level nor at international stage.³ It only began to coalesce as a different legal field in mid-20th century. Consequently, numerous countries including United Kingdom, Australia, New Zealand and United States of America began enacting comprehensive environmental laws. From the 1980s onward, environmental protection became institutionalized within the legal frameworks of both developed and developing nations, giving rise to specialized regulatory bodies, judicial innovations, and public interest litigation. Subsequent to national developments, Global jurisprudence on environmental regulation began to emerge as a vital response to global environmental issues. The *United Nations' 1972 Conference held in*

¹ A.P. Singh, "Protection of Environment during Armed Conflict: Is a New frame of Laws Necessary", 52 *Journal of Indian Law Institute* 453 (2010).

² Bhabya Prit Panda, "Does the contemporary Environmental Legislation Necessitates Ecocide as a core crime", 6 *GLS Law Journal* 47 (2024).

³ A. Dan Tarlock, 1 *Encyclopedia of Life Support System* (EOLSS Publishers 1996).

*Stockholm on the Human Environment*⁴ marked a landmark event in the sphere of global diplomatic engagement, consequently catalysing the constitution of UN Environment Programme, which has since been instrumental in guiding global environmental governance.⁵ Building upon Stockholm, the *Rio Earth Summit, 1992* emphasized the interdependence of environmental protection and socio-economic development, providing a guiding framework for subsequent environmental initiatives⁶. A principle outcome of the Rio Summit was the ratification of the *UN Framework Convention on Climate Change (UNFCCC)*⁷ which established the basis for future negotiations on reducing greenhouse gas emissions and introduced a collaborative framework to address global warming, reinforcing equity and collective responsibility. Pursuantly *Conferences of the Parties (COP)* under the UNFCCC established critical agreements:

- The *Kyoto Protocol (1997)*,⁸ mandating developed countries to comply with binding emission reduction targets.⁹
- The *Paris Agreement (2015)*,¹⁰ designed with an aim to curb the rise in average global temperature to well below 2°C, while striving to restrict it within 1.5°C above pre-industrial levels.¹¹

⁴ U.N. Conference on the Human Environment, *Report of the United Nations Conference on the Human Environment, Stockholm, 1972*, U.N. Doc. A/CONF.48/14/Rev.1, (June 16, 1972).

⁵ U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. 1), annex 1 (Aug. 12, 1992).

⁶ Patrick Chukwunonso Aloamaka, "Navigating the Climate Crisis: Exploring International Law's Evolution and Application", 6 *GLS Law Journal* 50 (2024).

⁷ U.N. Conference on Environment and Development, *United Nations Framework on Climate Change*, 1992 (May 1992).

⁸ U.N. Conference of the Parties on Climate Change (COP 21), *Kyoto Protocol*, FCCC/CP/1997/L.7/Add.1, (Dec. 11, 1997).

⁹ *Supra* note 6 at 51.

Before 1972, India had no specialised regulations pertaining to the environment. It mainly depended on an amalgamation of tort laws, criminal laws, regulations related to water and forests.¹² In 1972, India attended the Stockholm Declaration which served as catalyst in strengthening its environmental policies. The Forty-Second Constitutional amendment established DPSP *Article 48A* for the protection of Vegetative Cover and Species Diversity in the country and *Article 51A(g)* as part of the Fundamental Duties to safeguard natural environments like rivers, forests, etc. This period transitioned into a new phase following a devastating incident that captured global attention: in December 1984, the discharge of a toxic gas from the Union Carbide India Ltd., establishment in Bhopal culminated in the death of nearly 4000 people and severely affected lakhs of others. This was one of the world's most hazardous disasters.¹³ After this event, many legislations and landmark judgements were passed to prevent any environmental disaster.

II Concept and Evolution of Environmental Crimes

Due to growing severity of damage of environment by industrial, agricultural and trade activities, the inadequacy of relying upon administrative or civil remedies is revealed. Consequently, the use of criminal law has now become imperative in order to prevent harmful environmental behaviour by criminalizing such acts and imposing strict

¹⁰ U.N. Conference of the Parties on Climate Change (COP 21), *Paris Agreement*, FCCC/CP/2015/L.9/Rev.1, (Dec. 12, 2015).

¹¹ *Supra* note 6 at 51.

¹² Rishikaa Handa, "Comparative Analysis of Sustainability Laws in India", 4 *Jus Corpus Law Journal* 208 (2024).

¹³ *Ibid.*

penalties against violators. It is in this regard that the notion of criminal responsibility offences against environment has gained prominence as an effective mechanism to ensure that damage to the environment is legally recognised. This is due to its accountability for the harm inflicted by individuals and enterprises. This approach is crucial as it transitions the focus from basic regulatory oversight to a more stringent criminal justice model, one that aligns with the gravity of environmental destruction, particularly when malfeasance is continual, grossly neglectful, or driven by profit motives.

During the early years of twenty-first century, specialists in environmental conservation, government agencies and proponents of environmental justice faced difficulties in formulating with precision the definition of environmental crime, identifying what actions to be prosecuted and determining the corresponding punitive measures.¹⁴ During the 1980s and 1990s, public understanding of environmental crime was largely associated with practices such as discharging chemical contaminants into water bodies; emission of pollutants into the atmosphere; and, improper management of hazardous residues including industrial compounds, agricultural chemicals and radioactive elements. In earlier conceptions, environmental crimes were often contemplated as an unlawful activity or a white-collar crime undertaken within the context of legitimate business operations. However, many such crimes did not align within the conventional parameters of the white-collar framework.¹⁵ The Legal Practitioners, instead of categorizing all environmental crimes within the white-collar mould,

¹⁴ JRank available at: <https://law.jrank.org/pages/11964/Environmental-Crime-Defining-environmental-crime.html> (last visited on April 22, 2025).

¹⁵ *Ibid.*

sought to formulate a definition that was more precise and nuanced. Key factors considered are:

1. severity of harm, identifying whether the act caused immediate harm or posed potential risks;
2. nature of the act, ranging from minor environmental fractions to substantial hazardous waste disposal, and;
3. The perpetrator, determining whether the act was committed by an individual or a corporation.¹⁶

According to UN Interregional Crime & Justice Research Institute, environmental crime denotes a comprehensive spectrum of unlawful activities. It encompasses transgressions involving the unlawful misappropriation of biospheric resources, such as the illicit trafficking of fauna and prohibited, unregulated and unreported fishing; contraventions pertaining to unlawful trade in controlled or hazardous substances, illegal transboundary movement of ozone-depleting substances (ODS) and the illicit trade in hazardous debris; and exploitation of forest resources through unauthorized trade in timber.¹⁷

III Types of Green Collar Crimes

Environmental offences encompass a broad range of unlawful activities that degrade ecosystems and jeopardize biodiversity. These acts may

¹⁶ *Supra* note 14.

¹⁷ UNITED NATIONS INTERREGIONAL CRIME AND JUSTICE RESEARCH INSTITUTE available at: <https://unicri.org/index.php/environmental-crimes> (last visited on April 22, 2025).

involve the illegal exploitation of wildlife, unauthorized logging, unlawful disposal of hazardous waste, illicit fishing practices, and other environmentally destructive conduct. The nature of such crimes varies according to the harm caused, the actors involved, and the applicable legal frameworks.

1. Deforestation

Deforestation remains one of the most pressing socio-environmental problem worldwide, contributing significantly to habitat destruction, species extinction, soil erosion, and loss of ecological balance.¹⁸ The removal of forest cover diminishes the land's ability to function as a carbon sink, thereby intensifying climate change.¹⁹ Weak enforcement of existing forestry laws allows illegal logging and land conversion to persist.²⁰ Addressing this requires stronger political will, collaborative governance involving indigenous communities, and coordinated action across multiple levels of government.

2. Illegal Wildlife Trade

Listed as the third-biggest illicit market after narcotics and arms trafficking, the illicit wildlife trafficking presents a serious danger to biodiversity worldwide.²¹ This transnational crime is driven largely by

¹⁸ Food and Agriculture Organization of the United Nations, *The State of the World's Forests 2020* (FAO, Rome, 2020), available at: <https://openknowledge.fao.org/handle/1834/39617> (last visited on 13 September 2025).

¹⁹ Intergovernmental Panel on Climate Change, "Climate Change and Land: Special Report" (September, 2019).

²⁰ Government of India, "India State of Forest Report 2021" (Ministry of Environment, Forest and Climate Change, 2021).

²¹ United Nations Office on Drugs and Crime, "World Wildlife Crime Report 2020" (Vienna, 2020).

high consumer demand, with rare and endangered species fetching extraordinary prices on the black market. Ironically, the rarer a species becomes, the greater its commercial value, creating a perverse incentive for continued exploitation. Over time, this trade has evolved into highly organized criminal networks that often operate beyond national jurisdictions.²²

3. Unregulated Logging

The unmonitored felling of trees for timber, furniture production, and agricultural expansion is a leading cause of deforestation.²³ Without proper oversight, logging activities can devastate ecosystems, disrupt local climate patterns, and cause long-term environmental harm.²⁴

4. Shark Finning

Specialized vessels capture approximately a hundred million sharks annually, with up to 70 million subjected to the brutal practice of finning.²⁵ This practice endangers sharks, which are vital for maintaining the balance of the ocean's food chain.²⁶

²² TRAFFIC, *Wildlife Crime: An Enforcement Guide to the Convention on International Trade in Endangered Species* (TRAFFIC, Cambridge, 2019), available at: https://www.traffic.org/site/assets/files/19065/traffic-b5-cites_briefing_paper_final-1.pdf (last visited on 13 September 2025).

²³ Global Forest Watch, *Deforestation Data* (2022), available at: <https://www.globalforestwatch.org/dashboards> (last visited on 13 September 2025).

²⁴ World Bank, "Sustaining Forests: A Development Strategy" (Washington D.C., 2004).

²⁵ Food and Agriculture Organization, "The State of World Fisheries and Aquaculture" (Rome, 2022).

²⁶ International Union for Conservation of Nature, "Sharks: Facts and Figures" (Gland, 2021).

5. Illegal, Unreported, and Unregulated (IUU) Fishing

Marine resources are under growing strain from both legitimate overfishing and IUU practices.²⁷ Illegal fishing occurs when vessels operate without authorization in another country's waters or breach fisheries regulations. Unreported fishing refers to the concealment or falsification of catch data, while unregulated fishing often takes place in areas lacking adequate management frameworks.²⁸ These activities undermine sustainable fisheries, disrupt ecosystems, and pose a significant challenge to international maritime governance.

6. Dumping of Waste into Water Bodies

Industrial facilities and local authorities are frequently implicated in the dumping of hazardous substances into rivers, lakes, and aquifers.²⁹ Such pollution not only kills or sickens aquatic life but also contaminates surrounding soil and plant systems through seepage, ultimately disrupting entire food chains and threatening human health.³⁰

IV Legal Framework Governing Green Collar Crimes

The 1972 Stockholm Declaration marked the first major global step towards recognising the human impact on the environment and

²⁷ Food and Agriculture Organization (FAO), "International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing" (Rome, 2001).

²⁸ European Commission, "Illegal, Unreported and Unregulated Fishing (IUU)" (Brussels, 2020).

²⁹ Central Pollution Control Board, "Report on River Pollution in India" (New Delhi, 2021).

³⁰ United Nations Environment Programme, *Global Waste Management Outlook* (UNEP, Nairobi, 2015), available at: <https://www.unccllearn.org/wp-content/uploads/library/unep23092015.pdf> (last visited on 13 September 2025).

promoting international efforts for its protection.³¹ This was followed by the Rio Declaration of 1992, which set forth a series of guiding principles for preserving the environment on a national and worldwide scale.³² The Montreal Protocol was established in 1987 with the goal of lowering the production and emissions of chemicals that deplete the ozone layer.³³ This agreement marked a major advancement in the dedication of the international community in safeguarding biosphere from the dangers posed by heightened solar ultraviolet radiation. It has also contributed positively to the decrease in emissions of greenhouse gases.³⁴ Concerning climate change, Paris Agreement of 2015 stands as a landmark development, as it brought together 196 nations for the first time to collectively address the problem of global warming. Its central aim is to reduce greenhouse gas emissions while fostering sustainable development.³⁵

In India, the constitutional framework for environmental protection is firmly established under Part IVA, introduced through the Forty-Second Constitutional Amendment.³⁶ This amendment inserted Article 48A and 51A(g), which require the government and people to safeguard the environment, forests, wildlife, and also emphasise the duty of every citizen to contribute to environmental preservation and to act with

³¹ UN General Assembly, *The Stockholm Declaration on the Human Environment*, 1972, U.N. Doc. A/CONF.48/14/Rev.1 (June 16, 1972).

³² UN General Assembly, *The Rio Declaration on Environment and Development*, 1992, U.N. Doc. A/CONF.151/26 (August 12, 1992).

³³ UN General Assembly, *The Montreal Protocol on Substances that Deplete the Ozone Layer*, 1987, 1522 U.N.T.S.3 (September 16, 1987).

³⁴ United Nations Environment Programme, "Montreal Protocol 30th Anniversary Report" (Nairobi, 2017).

³⁵ UN Framework Convention on Climate Change, *The Paris Agreement*, 2015, U.N. Doc. FCCC/CP/2015/L.9/Rev.1 (December 12, 2015).

³⁶ The Constitution (Forty-Second Amendment) Act, 1976 (Bill 91 of 1976).

compassion towards all living beings.³⁷ Furthermore, According to judicial interpretation, the right to a clean and healthy environment is included in Article 21 of the Constitution, which states that no one shall be deprived of life or personal liberty other than in accordance with the legal process.³⁸ The Apex Court acknowledged that people had a state-guaranteed right to live in a safe and clean environment in the seminal decision of *M.C. Mehta v. Union of India*.³⁹ Judiciary has also been vested with the power to enforce financial sanctions on those found guilty of environmental offences.

Alongside constitutional duties, India enforces a robust set of environmental statutes that prescribe strict penalties for violations. The Environment (Protection) Act, 1986 (EPA) was created in response to the Bhopal Gas Disaster and India's attendance at the 1972 United Nations Conference on the Human Environment in Stockholm.⁴⁰ Regarded as an all-encompassing piece of legislation, the Act fills several gaps in the existing regulatory framework. Its broad definition of "environment" encompasses the air, water, and land as well as the intricate connections between them. It gives the national government the authority to establish pollution guidelines, control industrial operations, manage hazardous waste, and coordinate with agencies to safeguard environment and public health.⁴¹

³⁷ The Constitution of India, arts. 48A, 51A(g).

³⁸ *Id.*, art. 21.

³⁹ (1987) 1 SCC 395.

⁴⁰ The Environment (Protection) Act, 1986 (Act 29 of 1986).

⁴¹ Ministry of Environment, Forest and Climate Change, "Annual Report 2021-22" (New Delhi, 2022), available at: <https://moef.gov.in/uploads/2022/03/Annual-report-2021-22-Final.pdf> (last visited on 13 September 2025).

In order to prevent and regulate pollution in rivers and streams, the Water (Prevention and regulate of Pollution) Act, 1974 was passed in accordance with Article 252 of the Constitution.⁴² It forbids the release of contaminants into water bodies in excess of predetermined thresholds and penalizes infractions. The 1988 amendment to the Act brought it into accordance with the provisions of the Environment (Protection) Act, 1986, and established the Central Pollution Control Board (CPCB) to establish water pollution standards.⁴³ Then under the guidance of CPCB, The State Pollution Control Boards (SPCBs) function to strengthen the financial resources for pollution control measures with the help of water Cess Act, 1977.⁴⁴

Similarly, the Air (Prevention and Control of Pollution) Act, 1981, prescribes guidelines for air quality, restricts the use of polluting fuels and devices, and control their emission.⁴⁵ The 1987 amendment to the Act enhanced the powers of pollution control boards, enabling them to act swiftly during emergencies and to recover costs from violators. It also introduced liability for failing to report potential or actual emissions of harmful substances into the atmosphere.⁴⁶

Furthermore, The Act of 1972 Concerning the Protection of Wildlife, preserve the flora and fauna as well as ecologically sensitive areas.⁴⁷ It combats illegal hunting and smuggling by prescribing punishments that vary according to the species affected, as categorised in four different

⁴² The Water (Prevention and Control of Pollution) Act, 1974 (Act 6 of 1974).

⁴³ *Id.* (as amended in 1988).

⁴⁴ The Water (Prevention and Control of Pollution) Cess Act, 1977 (Act 36 of 1977).

⁴⁵ The Air (Prevention and Control of Pollution) Act, 1981 (Act 14 of 1981).

⁴⁶ *Id.* (as amended in 1987).

⁴⁷ The Wildlife (Protection) Act, 1972 (Act 53 of 1972).

schedules. Offences such as encroachment upon rare species, hunting in protected zones, or smuggling of animals, plants, or their derivatives can attract a minimum imprisonment of seven years.⁴⁸ The Government under this act also protects the national parks and wildlife sanctuaries, and can designate them as protected areas.

Lastly, The National Environment Tribunal Act, 1995 was passed in response to resolutions from the United Nations Conference on Environment and Development in 1992 to impose strict liability for accidents involving hazardous substances.⁴⁹ The Act established a National Environment Tribunal to adjudicate cases effectively and to provide restitution for damages to people, property, and the environment, thereby giving due importance to 'absolute liability' principle.⁵⁰

V Role of Judiciary

The Indian Judicial System has, in recent times, been instrumental in regulating the pollution control measures and safeguarding the biodiversity.⁵¹ It has made significant contributions in the advancement of Environmental Legislation and Jurisprudence in India, through taking cognizance of Public Interest Litigations, broadening the ambit of locus standi, establishing key doctrines and interpreting constitutional provisions from an environmental standpoint.⁵² Established under the

⁴⁸ *Supra* note 47, schedules I-IV.

⁴⁹ The National Environment Tribunal Act, 1995 (Act 27 of 1995).

⁵⁰ *Supra* note 45.

⁵¹ Fasih Raghieb Gauhar and Mirza Juned Beg, "Judicial Activism to Judicial Adventurism for the Protection of Environment: An Analysis in the Context of Expansive Meaning of Article 21 of Indian Constitution", 24 *Aligarh Law Journal* 225 (2017).

⁵² *Id.*

NGT Act, 2010,⁵³ the National Green Tribunal plays an important role in adjudicating environmental legal conflicts, preservation of forests and conservation of other natural resources. In addition to this, NGT helps is responsible for enforcing environmental legal rights, providing relief and redressal to persons and property for damages, and addressing all the matters connected thereto.

Through a series of judgements, the Apex Court and the High Courts have consistently made efforts to establish a balance between developmental initiatives and environmental legal safeguards.

A landmark step in strengthening the environment jurisprudence came in *M.C. Mehta v. UOI*,⁵⁴ wherein the Superior Court held that any enterprise operating industries with intrinsic hazards, which could potentially threaten the health and safety of its workers or local residents, have an unequivocal and inalienable responsibility towards the public. It is incumbent upon such enterprises to ensure that all such hazardous operations are executed with the paramount safety standards and preventive measures, and the enterprise shall be absolutely liable to pay compensation for any resulting harm, notwithstanding the conduct of due diligence or the absence of fault.

The principle of absolute liability was further reinforced in the case of *Union Carbide Corporation v. Union of India*,⁵⁵ which at its core, addresses the constitutional imperative to define legal boundaries for the use of ultra-hazardous technologies by the enterprises. The court while

⁵³ National Green Tribunal, 2010 (Act 19 of 2010).

⁵⁴ *Supra* note 45.

⁵⁵ (1991) 4 SCC 584.

observing that any harm arising from such technologies must be subject to absolute and preventive standards of liability, recognized the need for imposing legal restraints on their use in order to protect the rights of people enshrined under the constitution.

The pronouncement in *Subhash Kumar v. State of Bihar*⁵⁶ reiterated that the Constitutional guarantee of life and personal liberty under Article 21⁵⁷ includes within its ambit the right to enjoy water and air free from pollution, consequently essential for meaningful exercise of right to life. Therefore, any violation that threatens this quality of life, in contravention with statutory framework, entitles an aggrieved citizen to seek redressal through Article 32⁵⁸.

The scope of Article 21⁵⁹ was further expanded in *Virender Gaur v. State of Haryana*,⁶⁰ wherein the Court held that environmental degradation through ecological disruptions or pollution, constitutes violation of Article 21. It observed that the right to live with human dignity cannot be exercised fully without the conservation of the environment; proper sanitation and preservation of ecological balance, all indispensable for enjoyment of life. For that reason, maintenance of a clean environment is a prerequisite for ensuring right to healthy life and safeguarding inherent dignity of human life.

⁵⁶ (1991) 1 SCC 598.

⁵⁷ *Supra* note 44.

⁵⁸ *Supra* note 43, art. 32.

⁵⁹ *Supra* note 44.

⁶⁰ (1995) 2 SCC 577.

Advancing the principles of Sustainable Development, the court in *Vellore India citizen forum v. Union of India*,⁶¹ the laid down “Precautionary Principle”. It emphasized that this principle, together with the principle of “The Polluter Pays” constitutes core attributes of “Sustainable Development”. Within the framework of the municipal law, “The Precautionary Principle” denotes

- Proactive Environmental strategies adopted by State Government and Regulatory bodies must be capable of identifying potential threats, safeguarding ecological integrity and determining the principal contributors of environmental damage.
- In situations involving a risk of severe and irreversible damage, the uncertainty in scientific knowledge should not be a ground for delaying measures aimed at preventing environmental deterioration.
- It is incumbent upon the actor or the developer/industrial entity to prove that their activities are non-hazardous to the environment.

The precedent of *Indian Council for Enviro-Legal Action v. Union of India*,⁶² cemented the principle of “Polluter Pays”, establishing that the onus to undertake liability for the restoration of environmental harm lies upon the liable party.

Expanding the public's rights over natural resources the court in *M.C. Mehta v. Kamal Nath*,⁶³ held that the public trust doctrine part of Indian

⁶¹ (1996) 5 SCC 647.

⁶² (1996) 3 SCC 212.

⁶³ (1997) 1 SCC 388.

Legal jurisprudence which is rooted in the English Common law. The general public enjoys beneficiary rights over natural resources, for instance, coastlines, rivers, forests, air and ecologically sensitive regions. The State functions as a trustee for all the natural resources reserved for public benefit and use. Consequently, the State has a statutory obligation to safeguard these natural resources and protect their acquisition for exclusive ownership.

Emphasizing the protection of wildlife as an essential aspect of environmental preservation, the Highest Judicial Authority in the case of *Sansar Chand v. State of Rajasthan*,⁶⁴ underlined the duty of both National and Sub-National Governments to actively safeguard the country's wildlife and enforce the Wildlife (Protection) Act strictly, considering it essential for preserving ecological balance.

VI Challenges in Combating Environmental Crimes

Environmental crimes persist despite increased awareness and the creation of national and international frameworks, posing many difficulties for law enforcement and decision-makers. The UNODC identifies poor governance, corruption, weak laws, lack of funds, and limited global cooperation as key drivers of environmental crime, highlighting systemic flaws in institutional frameworks.⁶⁵

⁶⁴ (2010) 10 SCC 604.

⁶⁵ United Nations Office on Drugs and Crime, "World Wildlife Crime Report 2020" (Vienna, 2020).

Firstly, Green crime is a complex problem.⁶⁶ Effectively addressing green crime is challenging due to its complexity. An increase in regulatory tools often makes it harder for national authorities to effectively interpret and apply them.⁶⁷ It is equally difficult to find out whether it is illegal/legal/anti-social activity when we talk about this issue at the local level, national level and international level.

Secondly, The Problem of Environmental crime is transnational, but the current enforcement frameworks are often nation-state based therefore require global cooperation.⁶⁸ The enforcement of legislation varies across different regions and countries. The primary causes of this problem according to the United Nations (UN) study includes lack of data, lack of institutional will and governance, insufficient allocation of resources, inadequate personnel training, and bureaucratic obstacles inside the legal system.⁶⁹

Thirdly, the core issue lies in weak enforcement, not a lack of laws.⁷⁰ Most offences carry only minor fines, allowing violators to act without fear of strict state oversight.⁷¹ If environmental crimes are addressed solely through monetary compensation, it promotes a 'pollute and pay' system. Fines help hold polluters accountable but should be used only

⁶⁶ Rob White, *Transnational Environmental Crime: Toward an Eco-Global Criminology* (Routledge, London, 2011).

⁶⁷ Sunita Narain, *Conflicts of Interest in Environmental Regulation* (Centre for Science and Environment, New Delhi, 2018).

⁶⁸ Interpol and United Nations Environment Programme, "Strategic Report: Environment, Peace and Security – A Convergence of Threats" (Nairobi, 2016).

⁶⁹ United Nations Environment Programme, "The State of Knowledge of Crimes that Have Serious Impacts on the Environment" (Nairobi, 2018).

⁷⁰ P. Leelakrishnan, *Environmental Law in India* (LexisNexis, Gurugram, 5th edn., 2019).

⁷¹ Shyam Divan and Armin Rosencranz, *Environmental Law and Policy in India* (Oxford University Press, New Delhi, 2nd edn., 2001).

after irreversible damage has occurred.⁷² In cases where the law has the power to prevent an offence, it should not allow the violator to consciously and deliberately evade accountability by simply paying a penalty.

While wildlife laws exist, the lack of definitions for "exotic species" and "exotic pets" in Indian law leaves gaps, as the Wildlife Act, 1972 only protects listed native species. This oversight enables unchecked trade.⁷³ Similarly, laws on illegal and unreported fishing remain weak, and poverty among fishermen worsens the issue. The 2020 Fisheries Policy also fails to tackle IUU fishing effectively.⁷⁴

Poverty and increasing demand are also key drivers behind the expansion and persistence of environmental crimes.⁷⁵ The absence of sustainable livelihoods often compels individuals to participate in such illegal activities.⁷⁶ Rising demand for wildlife and natural resources offers organized crime groups a constant and profitable income stream.⁷⁷ Insufficient knowledge, instruction, and community engagement encourage money laundering and corruption, undermining

⁷² A. Boyle and C. Redgwell, *International Law and the Environment* (Oxford University Press, Oxford, 4th edn., 2021).

⁷³ *Supra* note 53.

⁷⁴ Government of India, *National Fisheries Policy 2020 (Draft)*, Ministry of Fisheries, Animal Husbandry and Dairying (Government of India, New Delhi, 2020), available at: https://dof.gov.in/sites/default/files/2020-12/Policy_0.pdf (last visited on 13 September 2025).

⁷⁵ United Nations Office on Drugs and Crime (UNODC), *World Wildlife Crime Report 2020: Trafficking in Protected Species* (UNODC, Vienna, 2020), available at: <https://www.unodc.org/documents/dataandanalysis/> (last visited on 13 September 2025).

⁷⁶ Amartya Sen, *Development as Freedom* (Oxford University Press, Oxford, 1999).

⁷⁷ TRAFFIC, *Wildlife Crime: An Enforcement Guide to the Convention on International Trade in Endangered Species* (TRAFFIC, Cambridge, 2019), available at: https://www.traffic.org/site/assets/files/19065/traffic-b5-cites_briefing_paper_final-1.pdf (last visited on 13 September 2025).

the legal system and endangering health of the people through the misuse of funds intended for necessary services.⁷⁸

VII Recommendations and Way Forward

A coordinated strategy involving national governments and international agencies is crucial to tackle the escalating threats of environmental crime. Enhancing legal, institutional, and technological interventions is pivotal to promote sustainable environmental governance and combat the escalating threats to ecosystems. In light of this, the following recommendations are proposed:

Strengthened Enforcement Mechanisms:

Criminal profiling must be adopted to streamline enforcement efforts, alongside increase in sanctions, introduction of probationary penalties, and the establishment of administrative bodies at the unit level to ensure implementation of uniform and statutory measures.

Establishment of Specialized Agencies:

Create specialized agencies at local, regional, and national levels to deal with environmental issues comprehensively.

Setting up of Environmental Courts:

Environmental Courts (ECs) with both civil and criminal jurisdiction should be instituted at the district and state levels to adjudicate

⁷⁸ Transparency International, "Corruption and the Environment (Policy Brief)" (Berlin, 2021).

environmental wrongs efficiently in order to reduce the burden on higher courts.⁷⁹

Integration of Green Technologies:

India should invest in scientific research aimed at advancing and deploying green IT and AI technologies to make industrial and daily processes environmentally sustainable.

Incorporations of Climate Considerations:

Climate change considerations should be integrated into various segments of global legal framework such as trade, finance, and human rights, to foster a coherent and comprehensive policy framework.⁸⁰

Strengthened International Cooperation:

Enhanced cooperation and collaboration including sharing best practices, technologies, and financial resources among governments, supranational organizations, and non-government entities is important in order to empower developing countries' climate actions and building capacity at all levels.⁸¹

VIII Conclusion

The study of the green crime landscape in India reveals that environmental crimes pose a serious, yet often overlooked, threat to

⁷⁹ Anupama Goel and Shalini Marwaha, "Environment Protection and Conservation: Real and Requisite Visage of Remedial Actions at National and International level", 18 *Aligarh Law Journal* 162 (2007-8).

⁸⁰ Patrick Chukwunonso Aloamaka, "Navigating the Climate Crisis: Exploring International Law's Evolution and Application", 6 *GLS Law Journal* 50 (2024).

⁸¹ *Ibid.*

biodiversity, human well-being, and global sustainability. These crimes illustrate the complex interplay between organized crime and environmental degradation, both in theory and in the evolution of legal frameworks. Activities like unregulated fishing, illegal wildlife trading, unlawful deforestation, and hazardous waste trafficking illustrate the broad range of green collar crimes, highlighting the critical need for strong and flexible legal frameworks.

Despite key laws like the Wildlife Act, Water Act, Environment Act, and Global Treaties like Paris agreement, significant challenges persist. Institutional weaknesses, corruption, ineffective enforcement mechanisms, and the transnational character of environmental crimes continue to obstruct effective responses. However, via landmark decisions and forward-thinking interpretations, the court has played a significant role in encouraging environmental stewardship and ensuring that criminals are held accountable.

The Legal measures are still inadequate to effectively tackle environmental crimes. A holistic approach is required that integrates institutional capacity building, public education, community participation, political commitment, and international collaboration. While financial penalties are important, they must not replace proactive and preventive strategies. Laws should be designed to deter, educate, and rehabilitate, in addition to punishing offenders by implementing stricter penalties.

Moving forward, it is essential to embrace innovative strategies, strengthen inter-agency and international cooperation, invest in technological advancements for monitoring and enforcement, and

empower local and indigenous communities as frontline protectors of the environment. Only through consistent and collective efforts can we hope to curb green collar crimes and secure a healthier, more equitable future for generations to come.