

ENVIRONMENTAL CRIME: AN ESCALATING THREAT TO OUR GOAL OF SUSTAINABLE DEVELOPMENT

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ABSTRACT

Climate change and environmental criminality are discussed in the Article. Our ecosystem's biotic and abiotic components are both affected greatly by the fast changes in the biophysical environment brought about by climate change and global warming. Environmental crimes, often known as crimes against the environment, are becoming increasingly lucrative and a serious threat to human existence. The study focuses on environmental crimes that are associated with forests, such as illicit animal trading, illegal wood trade, and deforestation. The world's forest biomes are seriously threatened by illegal logging, in particular, which releases greenhouse gases (GHG) into the atmosphere rather than sequestering carbon, leading to deforestation, soil erosion, and biodiversity loss. A further factor contributing to environmental crime is human activity-induced disruptions to marine ecosystems, which possess the highest capability for sequestering carbon. The Urban waste sources, including garbage, sewage overflow, oil spills, and agricultural practices, are the main causes of marine contamination. In addition, the marine bio environment is being threatened by illegal and unreported fishing. In addition, inadequate waste management is responsible for one-third of the garbage generated globally, and open dumping raises 10% of greenhouse gas emissions, harming ecosystems, the economy, and public health. Ingestion, suffocation, and entanglement of species are caused by marine plastic pollution; hydrochlorofluorocarbons (HCFCs) and chloro-fluorocarbons (CFCs) deplete the stratosphere's ozone layer and cause global warming through the greenhouse effect. Illegal burning of plastic waste also contributes to an increase in greenhouse gases. The article finds that, while various agreements and rules are in existence, the lack of vigorous enforcement and the failure to acknowledge ecological harm as a crime has rendered these laws ineffectual in mitigating the mounting threat to our ecosystem. It is imperative that the sole international authority control, prevent, and regulate such environmental crimes worldwide, with the cooperation of governments from other nations.

Key Words: Climate change, Environmental crime, Deforestation, Plastic waste, International legislation

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INTRODUCTION

Climate change and environmental crime are key focus areas of this research study. Climate change and global warming are rapidly changing the bio-physical environment in many ways, creating massive ramifications for all living and non-living species. Environmental crime i.e. Crime against the Environment has become a key threat to our survival in future and a profit-oriented crime as well. Climate change is expected to worsen, and this crime threatens numerous species. This organised environmental crime not only costs all countries money but also makes a major contribution to global warming. The adverse consequences of environmental crimes encompass a wide range of effects, notably the compromise of sustainability and the hastening of climate change, primarily attributed to the accelerated deforestation of tropical forests. The magnitude of environmental destruction caused by human activities is substantial and far-reaching, affecting individual states and regional and global contexts. Regional environmental problems, i.e. Challenges that span multiple nations encompass transboundary pollution of air and water, the impacts of extracting natural resources, declines in freshwater availability and quality, incidents involving nuclear energy, and the illicit trade of hazardous waste and toxic substances. At the global level, we face environmental problems such as ozone depletion, species extinction, marine pollution, loss of natural resources, decline in fish stocks, deforestation and climate change. The effect affects all of humanity. For example, forest-related crimes lead to deforestation. Forest communities suffer the deprivation of fundamental livelihoods, whilst natural disasters like flooding are set into motion, and it assumes a substantial role in the phenomenon of climate change as well as global warming. The global community must acknowledge environmental crimes as a serious threat to peace and sustainable development. There is a need to strengthen environmental legislation and to adopt and execute a collaborative approach to measure environmental crimes effectively. The relationship between climate change and environmental crime is quite intricate. Additionally, crimes such as wildlife trafficking, illegal and unregulated fishing, and various types of smuggling have had direct or indirect impacts on our environment. In the 19th century, criminal networks began to engage in international environmental crimes, alongside other crimes, because of high profits and minimal risks. Legal financial activities, such as industrial production, waste management, manufacturing and fuel trade, are considered the major facilitators for environmental crimes and a perfect way to hide illegal environmental activities. The global financial damage from environmental crimes was estimated to be between 76 and 218 billion euros in 2016 and still rising.² Environmental crime is influenced by both pull and push factors related to global warming and climate change. Because of climate change, criminal networks may grow and take advantage of scarcity of essential products and high prices of basic needs, by offering harmful cheap substitutes. Extreme global

². *STRATEGIC REPORT ENVIRONMENT, PEACE AND SECURITY A CONVERGENCE OF THREATS*, www.rhipto.org (Dec. 12, 2016).

warming and shortage of food in various nations of the world will further lead to political conflicts, inducing ecological refugees, and triggering instability while providing opportunities for exploitation, wildlife trafficking, and smuggling.³ The increasing scarcity of natural resources induces criminals to make their profits on their future allocation. Even though environmental crime has negative effects, it is frequently regarded as less severe than other types of criminal activity. The international criminal justice system ignores both environmental crimes and climate change. Environmental crimes are not currently considered criminal offences, but rather administrative ones, with offenders receiving penalties and administrative sanctions alongside a few legal improvements. Cases related to environmental crimes are generally treated as administrative or civil litigation, rather than criminal cases. Despite the increasing harmful impacts, international criminal laws have limited application in environmental crime cases, indicating that it is considered less severe.

A. CRIMES AFFECTING THE ENVIRONMENT AND CLIMATE CHANGE

The understated crimes are only brief and have a significant impact on nature and climate change. However, it will provide the idea that there is a need for time to include these crimes in global warming climate change discussions, and the international criminal justice system is required to consider climate change when considering litigation over environmental crimes.

1. FOREST-RELATED CRIMES

Forest-related crimes include illegal timber trade, illegal wildlife trade and deforestation. Globally, illegal logging is considered the most serious crime committed by organized mafia groups, which is also very harmful to people and the environment. Forests have a unique quality of carbon sequestration that is lost if they are logged incorrectly. In tropical forests, high biodiversity is associated with high carbon sequestration capacity, as they can sequester more carbon. Certain forests, like the Amazon, are becoming net emitters of carbon rather than sinks due to the connection between deforestation and rising temperatures.⁴ Worryingly, when temperatures reach a critical threshold, forests will reach a tipping point and start an uncontrolled dying process in which the growth of the trees rapidly diminishes. The majority of living and non-living species find refuge in forests, which also depend on animals for functions like pollination and seed dissemination. This tipping point poses a threat to biodiversity loss.⁵ In addition, many of these defects are rare and may be impossible to repair. When ecosystems are destroyed by deforestation in one place, numerous animal species are forced to move or become endangered, upsetting the natural order of ecosystems all over the world.

³ *The Global Risks Report 2022*, www3.weforum.org (Sept. 9, 2022).

⁴ Cox et al., *Sensitivity of tropical carbon to climate change constrained by carbon dioxide variability*. *Nature*, 494, 341-344 (1st ed. 2013).

⁵ Thompson, I., Mackey, B., McNulty, S., Mosseler, A. (2009). *Forest Resilience, Biodiversity, and Climate Change. A synthesis of the biodiversity/resilience/stability relationship in forest ecosystems*. Secretariat of the Convention on Biological Diversity, Montreal. Technical Series no. 43, 67 pages.

(a) Illegal Logging

Illegal logging is a big threat to the global forest biomes. As per WWF, illegal logging is the most prevalent crime in tropical forest areas. Deforestation and forest degradation release greenhouse gases into the atmosphere rather than storing carbon, which leads to global warming and biodiversity loss. Illegal logging and biodiversity loss contribute to climate change and global warming by emitting GHG instead of carbon sequestration.

(b) Mining and Trafficking of Stone and Metals

In deforestation, illegal mining and trafficking of precious stones play a major role, it should be curbed to control deforestation. This crime is also associated with human rights violations.

(c) Wildlife Trafficking

Wildlife crime is considered a separate branch of environmental crime and an increasing endangerment of too many species. Many are extinct or threatened due to high levels of poaching, trafficking and habitat loss. Data indicate a notable increase in numerous species of poaching and trafficking in recent years. The lack of international treaties and agreements, the inefficiency and laxity of criminal laws, and the lack of international cooperation in protecting animals and their habitats are some of the main causes of the rise in crimes connected to commerce.⁶ Data indicate a notable increase in numerous species of poaching and trafficking in recent years. The lack of international treaties and agreements, the inefficiency and laxity of criminal laws, and the lack of international cooperation in protecting animals and their habitats are some of the main causes of the rise in crimes connected to commerce.

2. CRIMES ASSOCIATED WITH FISHING AND MARINE ECOSYSTEM

Marine ecosystems have the greatest carbon sequestration capacity. Because of its size and mass, 50 per cent of Earth's oxygen absorbs 90 per cent of all the heat produced by human activities.⁷ However, oceans have certain limits to providing this service, which are determined by temperature, pressure and other factors. Carbon is recycled in the oceans through the decomposition of organisms and the photosynthesis of underwater plants.⁸ The unique quality of the oceans to sequester carbon is decreased by any disturbance to the oceanic ecosystem.⁹ The marine ecosystem experiences detrimental consequences as a result of higher temperatures and oceanic acidity caused by carbon sinks and global warming.¹⁰ There is a range of crimes that contribute to the overall problem, and the following ones have a significant impact.¹¹

⁶ Klemm C de, *The problem of migratory species in international law* 11 (1994).

⁷ Enric Sala et al., *Global Patterns in Marine Sediment Carbon Stocks*, *Frontiers* 165 (2020).

⁸ Enric Sala et al., *Global Patterns in Marine Sediment Carbon Stocks*, *Frontiers* 165 (2020).

⁹ Will Steffen et al., *Planetary Boundaries: Guiding Human Development on a Changing Planet*, *www.science.org* (2015).

¹⁰ Kristy J Kroeker et al., *Impacts of ocean acidification on marine organisms: quantifying sensitivities and interaction with warming*, *www.ncbi.nlm.nih.gov* (Apr. 3, 2013).

¹¹ *Oceans and the Law of the Sea*, United Nations General Assembly (2008).

(a) Land-Based Marine Pollution

The primary contributors to oceanic pollution are urban waste sources, which include sewage runoff, garbage and agricultural activities.¹² The pollution has led to a decrease in oxygen levels, resulting in the formation of extensive dead zones in the oceans. Given its broad impact, prioritizing this specific source of pollution will significantly bolster the protection of ecosystems.

(b) Pollution from Shipping Fuel

Roughly 3% of global carbon dioxide emissions are attributable to fuel use in the shipping industry.¹³ According to Annex VI of MARPOL (International Convention for the Prevention of Pollution from Ships), the usage of sulphur oxides over a minimal level is restricted.¹⁴ The global initiatives targeted at curbing carbon emissions from the shipping sector primarily emphasize the encouragement of the use of cleaner fuels particularly hydrogen and the execution of energy-efficient measures to curb emissions.

(c) Seine Water

The daily production of bilge water from a cruise ship amounts to approximately 8 tons.¹⁵ Oil and other debris are collected by the bilge water that runs through the ship. The ship can hold oil and other pollutants until they can be released onshore by-passing bilge water through an oily water separator (OWS), as required by the regulations, before discharging into the ocean. One of the most frequent criminal practices committed in the ocean is to avoid this procedure and instead dump untreated water on the seafloor, which stops photosynthesis and the reproduction of marine life.¹⁶ This widespread practice is prohibited by MARPOL Annex I.¹⁷

(d) Bunker Fuel

Bunker fuel is a heavy, hazardous, and toxic fuel waste that is frequently burned by large cargo ships. Bunker fuel residues after burning are considered toxic waste and must be disposed of as per MARPOL Annex II. To save money, ships may purposefully release garbage into the ocean, including sewage waste, ballast water, and other toxic materials, endangering the ecosystem's capacity to recover carbon.¹⁸

¹²MIT Energy Initiative. 2019. Insights into Future Mobility. Cambridge, MA: MIT Energy Initiative.

¹³https://files.worldwildlife.org/wwfmsprod/files/Publication/file/8mie6esklg_Crimes_that_Affect_the_Environment_and_Climate_Change.pdf.

¹⁴ *The Management of Ship-Generated Waste On-board Ships*, EMSA.

¹⁵ Robert A Meyers, *Encyclopedia of Physical Science and Technology 3rd edition - Robert A. Meyers - 9780122274107 - Book / KriSo.ee*, 9780122274107 (Aug. 15, 2024).

¹⁶ "Magic Pipe" MARPOL Violations Can Be Spotted From Space, The Maritime Executive (2019).

¹⁷ Tony Robert Walker et al., *Environmental Effects of Marine Transportation* 505-530 (2nd ed. 0820).

¹⁸ Jon C Day et al., *Guidelines for applying the IUCN protected area management categories to marine protected areas* 505-530 (2nd ed. 1220).

(e) Illegal, Unreported and Unregulated Fishing

Crimes against fisheries segment deplete fish stocks and threaten marine biodiversity. Since most aquatic species are found closer to the ocean's surface and beaches, protecting marine protected areas (MPAs) offers several benefits for marine biodiversity and the continuation of that species.¹⁹ Protecting MPAs, increasing fish harvests, protecting biodiversity and protecting marine carbon stocks have three benefits.²⁰ As of 2021, marine areas will cover 7 per cent of the oceans and are considered critical for the conservation of biodiversity and the sustainability of the fishing industry.²¹ Inadequate enforcement of laws protecting marine regions, coupled with ongoing unlawful activities that jeopardise conservation and sustainability efforts to preserve ocean health and the fragile food chain that supports marine life.²²

3. WASTE TRAFFICKING

The existing "make-consume-throw" linear economic paradigm is sustained by the illicit waste trade. Therefore, garbage originating in the Northern Hemisphere is transported to and dumped off in the Southern Hemisphere, threatening the global economy and negatively impacting the public health, economics, and ecosystems of the destination countries. GHG emissions are also raised by it globally. The waste trafficking is liable for ten per cent of global greenhouse gas emissions. Poor waste management accounts for one-third of the trash produced worldwide, with open dumping making up up to 31% worldwide and up to 93% in certain developing nations.²³ The ineffectiveness of international mechanisms is the primary cause of the rise in waste transportation and disposal. This includes accords on the export of hazardous waste, inadequate oversight of waste transportation, weak penalties for offenders, and the exploitation of developing countries by wealthy ones. Waste trafficking will not decrease in the absence of a resolution for these problems. Adopting uniform worldwide prices for the disposal of hazardous waste together with integrated global laws is one practical way to address this issue. A uniform rate of garbage disposal across all countries will deter waste trafficking by the exporting nation.

(a) Plastic Waste Trafficking

Illegally exported plastic waste often ends up in landfills, illegal warehouses and other places. Instead, it is being subjected to combustion in an exterior environment. Since landfill methane emissions make

¹⁹ A Hastings & LW Botsford, *Equivalence in Yield From Marine Reserves and Traditional Fisheries Management*, Ecological Society of America 65-70 (2003).

²⁰Jon C Day et al., *Guidelines for applying the IUCN protected area management categories to marine protected areas* 505-530 (2nd ed. 1220).

²¹ Xiao Recio-Blanco et al., *LEGAL TOOLS FOR STRENGTHENING MARINE PROTECTED AREA ENFORCEMENT* (2016).

²² "Kaza, Silpa; Yao, Lisa C.; Bhada-Tata, Perinaz; Van Woerden, Frank. 2018. What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050. Urban Development;. © Washington, DC: World Bank.

²³*Global Waste Management Outlook*, www.unep.org (Mar. 6, 2015).

up around 3% of all greenhouse gas emissions worldwide, they have received the most attention.²⁴ Plastics account for 6% of global oil output and are high in carbon.²⁵ The disposal of them can be high in carbon, especially if they are burnt outside.²⁶ In addition to frequently ending up in illegal landfills or open burning, illegally carried garbage frequently disregards safe waste management procedures, generating persistent organic pollutants and black carbon that are harmful to all living things.²⁷ Plastic waste, especially waste that ends up in the oceans, also corrodes marine ecosystems and affects marine biodiversity.

(b) CFC/HFC Trafficking

Artificial gases that are not found in nature include hydrocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), which are generated mainly for refrigeration. They deplete the ozone layer and have a thousand-fold greater potential for global warming than carbon dioxide.²⁸ The 1989 Montreal Protocol banned these gases because of their detrimental impact on the ozone layer. CFCs had been phased out by 2010 after the pact was adopted by every nation.²⁹ Hydrofluorocarbons (HFCs) were suggested as a substitute at the time as they first degraded more quickly and were less ozone-depleting due to the absence of chlorine.³⁰ But HFCs are also potent climate gases, which is why the Kigali Protocol forbade them as well.³¹ These gases are difficult to remove, making confiscation and law enforcement more difficult.

B. CRIMINAL JUSTICE SYSTEM OF CLIMATE CHANGE

International green litigation has significantly increased in recent years as a way to encourage climate change action. The reason behind the enhancement of litigation in this field is to public awareness of the detrimental consequences of climate change on the environment, strengthen international legal frameworks, and improve scientific awareness of the cause of climate change are all contributing factors to this growth. Classification of environmental crimes related to climate change is another challenge. Many crimes, such as crimes affecting marine biodiversity and illegal deforestation, are not directly related to climate change and therefore are not classified as climate-related cases.³² Establishing a causal relationship between environmental crime and climate change can be difficult, especially in cases where the impacts are not yet evident. If the victim suffers personal suffering due

²⁴ *The New Plastics Economy Rethinking the future of plastics*, www3.weforum.org.

²⁵ Reyna-Bensusan et al., *Experimental measurements of black carbon emission factors to estimate the global impact of uncontrolled burning of waste* 629-639. (213th ed. 2019).

²⁶ *Global Waste Management Outlook*, www.unep.org (Mar. 6, 2015).

²⁷ *Technical assistance Projects Workshops Webinars SGP on plastic waste Event on depolluting oceans through controlling trade in plastic wastes and combatting illegal traffic under the Basel Convention*, www.basel.int (June 28, 2022),

²⁸ *HFCs: a critical link in protecting climate and the ozone layer*, www.unep.org (May 6, 2011).

²⁹ *What is the current state of the ozone layer?*, www.eea.europa.eu.

³⁰ Guus J. M Velders et al., *Projections of Hydrofluorocarbon (HFC) Emissions and the Resulting Global Warming Based on Recent Trends in Observed Abundances and Current Policies*, 22 *Atmospheric Chemistry and Physics* 6087–6101 (2022).

³¹ *HFCs: a critical link in protecting climate and the ozone layer*, www.unep.org (May 6, 2011).

³² Maria Antonia Tigre & Armando Rocha, *Competing Perspectives and Dialogue in Climate Change Advisory Opinions*, 117 *American Journal of International Law* 287 - 291 (2023).

to the crime, it is usually deemed an ex post facto injury under criminal law. It is common for crimes to be underestimated when the victims are unaware of the harm that has not yet occurred. To properly integrate the prospective harms of environmental crimes causing climate change, a cause based on scientific prediction is necessary. The harm caused by climate change may be demonstrated by turning scientific data into legal proof through procedures including expert witness testimony, research investigations, and judicial proceedings. The degree and range of damage can be evaluated in several ways. Measuring direct and indirect greenhouse gas emissions and their effects on climate change allows one to assess the contribution of environmental crime to global emissions. The Global Warming Potential (GWP) is a frequently used statistic to estimate the damage brought on by direct and indirect greenhouse gas emissions. By comparing various gases to the relative warming potential of one tonne of carbon dioxide, the Greenhouse Gas Purification Index (GWP) shows the consequences of various gases on climate change and global warming. This measurement is dependent on how long the gas remains in the atmosphere and how well it absorbs radiant radiation. For instance, methane and CFCs have the same potential for damage, yet methane degrades over time, whereas CFCs remain in the atmosphere for thousands of years.

C. CHALLENGES AHEAD FOR THE CRIMINAL JUSTICE SYSTEM FOR CLIMATE CHANGE

(a) The Distinction Between Procedural law of criminal and civil proceeding

Deciding to use criminal or civil process has pros and cons. Civil proceedings are generally less resource-intensive and more efficient than criminal procedures, even though criminal procedures have higher standards and a strong deterrent impact.

(b) Insufficient Ability and Knowledge

Crimes related to climate change that materially and procedurally affect the environment might be difficult to establish. There exist disparities in legal authority, insufficient nations, inadequate legal collaboration, feeble penalties, and domestic legislation.³³

(c) Establishing the Criminal Responsibility of Corporations

The biggest challenge for corporations is to establish the mens rea, the mental element of the crime. Environmental crime is international and widespread, often requiring the prosecution of corporations rather than individuals.³⁴

³³ Report on Eurojust's Casework on Environmental Crime, European Union Agency for Criminal Justice Cooperation (2020).

³⁴ Vijay Kumar Singh, *Criminal Liability of Corporations – An Environmental Perspective*, Environmental Crimes: Corporate Liability (2010).

D. THE IMPACTS OF CLIMATE CHANGE GROW NEW CRIMES

Climate change is already having an effect, and it will continue to do so over the growing season. These factors have a significant impact on the characteristics of crime as well as our capacity to combat it. Tracking criminal patterns that have an impact on the criminal justice system is crucial. Many new crimes are being brought about by the worldwide effort to control climate change. These new offences include the illicit mining of cobalt and lithium, the illegal trading in solar energy and battery trash, and the carbon mafia, among other offences. Investigations into the possibility of geoengineering-related contamination have also been brought up.

After the glaciers melt and the climate warms, new shipping lanes will open up, and disputes and tensions over fish exploitation may soon rise due to changes in migratory fish patterns and declining fish supplies. Another social impact of climate change is environmental change issues. There can be several reasons behind such a migration. For example, drought, famine, rising sea levels due to climate warming, the sinking of islands and coastal cities water shortages, damage to agriculture and resulting food shortages, poverty, etc. may be a reason for immigration.³⁵

E. PUNISHMENT OF ENVIRONMENTAL CRIME

A big challenge for the international community is deciding the amount of punishment for those found guilty of environmental crimes, especially if environmental crime is a fifth international crime. According to the general legal principle, a legal entity such as a company cannot be imprisoned separately from individuals. Therefore, an alternative solution must be found. As per the ICC statute, individuals who committed offences listed in the statute are to be prosecuted by the court. However, the issue becomes more complex when dealing with environmental crimes, as many of these are not committed by specific individuals and are the result of a series of decisions made over time. Therefore, the most suitable punishment for these types of crimes would be fines and sanctions. When environmental damage is caused by a group, institution, or nation, sanctions and penalties are the most appropriate forms of punishment.

F. WAY FORWARD

To counter the increasing hazards that environmental crime poses, there is a need for improved cooperation between law enforcement and political will. To effectively combat environmental crime in all of its forms, parties, relevant government departments, specialised bodies, and implementing agencies should put the following into immediate action:

³⁵ Mayer, Benoit, *The International Legal Challenges of Climate-Induced Migration: Proposal for an International Legal Framework* (February 5, 2011). *Colorado Journal of International Environmental Law and Policy*, Vol. 22, No. 3, 2011.

- Acknowledge that environmental crime is a pressing worldwide issue that requires a swift, decisive, and comprehensive response—unlike certain other types of crime.
- Admit that attempts to prevent environmental crime will be hampered unless corrupt authorities are dealt with, as environmental crime is a sanctuary for corruption at all levels. Cross-cutting resolutions on environmental crime and the Convention against Corruption should acknowledge this fact.
- Create administrative change to counteract corruption, especially by introducing technology to eliminate direct human intervention in sectors like natural resource commerce.
- As resources are limited, commit to assisting nations with higher rates of crime than others. Encourage the establishment of national and regional enforcement agencies, improve existing ones, and provide technical assistance to departments that investigate environmental crimes by supporting intergovernmental legal institutions.
- Increase the level of cooperation between various mechanisms, such as the CITES and the Convention on Transnational Crime.
- Create new units or join already-existing border security offices and national, and international environmental crime enforcement units that share information to carry out operations and investigations aimed at criminal networks.
- Encourage pertinent staff to join the CITES Enforcement Experts Group to show sufficient funding and political will to combat environmental crime.

RECOMMENDATIONS AND CONCLUSION

Finally, this study found various solutions in the form of suggestions after assessing the current problems with the effort to combat and curb environmental crimes and they are as follows:

- **Need to have a comprehensive definition of “Environmental Crime”:** Ecological criminality is a relatively recent idea. The notion of environmental crimes has to be more precisely defined in all laws about environmental conservation since it needs more clarity in its definition.
- **Financial support:** Increase the proportion of Official development assistance (ODA) to administer and reform the judicial sector, by controlling and preventing crime, by raising the alarm on the international community to acknowledge environmental crime as an emerging danger to sustainable development. Building capacity and providing technological support to concerned agencies, as well as supporting interagency enforcement, prosecution, the judiciary, and regional, national, and international law enforcement efforts against environmental crimes, should be the main focus of this, particularly in developing and fragile states.
- **Introduction of new comprehensive programs to address environmental crimes:** The National and International institutions are required to rethink and reintroduce new and useful programs relevant to environmental crimes. There is an urgent need for a strict institutional effort to combat and curb environmental crimes at all levels. Though the environmental harms are committed at the local level, its impact is felt at the global level. Hence, a comprehensive and specific program is very much required.

- **Institutional and Intergovernmental cooperation:** For all institutions to be properly supported, strengthened, and controlled in the fight against environmental crime, there is an urgent need for institutional collaboration. Environmental crime may be prevented and combated by strengthening and bolstering collaboration between national and international organisations that are in charge of environmental protection.
- **Creation of special tribunals for environmental crimes in all nations:** The International Criminal Court stated in 2016 that it would want to hear cases involving environmental crimes, but it has not been considered seriously even at present. The NGT in India is tasked with handling issues about the environment. In addition, the authority of subordinate and higher courts over proceedings about environmental crimes is restricted. Therefore, to manage, regulate, and prevent environmental crimes, trials on criminal cases must be held in urgent and strict special tribunals.
- **Bringing corporate entities and their officers into criminal responsibility:** After accessing corporate criminal liability particularly, with the corporation's environmental criminal liability, laws are very few and vague. There is an urgent need to bring stringent criminal law against corporations for the acts or omissions which are causing harm to the environment.
- **Training programs are needed for the officials of the authorities: Institutions like Pollution Control Boards, Forest Dept, Wildlife officers, etc., are to be well-trained in** understanding environmental crimes and their impacts and how to address these crimes. Every authority whose officials are entrusted with using a specific and technical approach to prevent, manage, and regulate environmental crimes must have institutional and comprehensive training, as well as skill-development programmes and professional and field training for all levels of staff.

Considering the above-mentioned, it is very much needed to have exclusive international authority to control, prevent and regulate such environmental crimes worldwide. Environmental crime has wide-ranging impacts on all sectors of society and is frequently associated with the exploitation of marginalized communities, human rights violations, acts of violence, conflicts, illicit financial activities, corruption, and the proliferation of transnational criminal organizations. The major reason for the acceleration of climate change is environmental crime. Despite their very negative impact, environmental crimes were not considered a priority in some countries, therefore they did not receive an adequate response from the government. Frequently misinterpreted as "victimless" and unintentional occurrences, law enforcement agencies often assign them a low priority, leading to inadequate and ineffective punishments. There is an urgent need to strengthen efforts to combat environmental crime and to include the criminal justice system's response to these crimes into agendas associated with climate change, biodiversity, and the circular economy to assist nature's ability to mitigate climate change. Humans have slowly realised how closely ecological preservation and human existence are related. Through several agreements and regulations, efforts have been undertaken on a global scale to prevent and regulate environmental crime. Unfortunately, the absence of strong enforcement and the refusal to recognise ecological harm as a crime has made these laws ineffective

in halting the growing threat to our ecosystem. The inadequacy of current international tools was discovered after research categorised and examined environmental crimes. The study pointed up issues with men's rea in ecological crimes, state sovereignty, environmental crime borders, sanctions and punishments, and the effect on future generations. By tackling these issues, governments may find it more politically willing to work together to pass a single international legislation that makes environmental damage illegal.