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WHITE BLACK LEGAL is an open access, peer-reviewed and refereed journal provided dedicated to express views on topical legal issues, thereby generating a cross current of ideas on emerging matters. This platform shall also ignite the initiative and desire of young law students to contribute in the field of law. The erudite response of legal luminaries shall be solicited to enable readers to explore challenges that lie before law makers, lawyers and the society at large, in the event of the ever changing social, economic and technological scenario.

With this thought, we hereby present to you

ENVIRONMENTAL CRIMES – AN ANALYSIS ON ITS CAUSES, IMPACTS AND COUNTERMEASURES

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Abstract

The global community is falling short in addressing the increasing significance of environmental crimes in the context of conflict financing, development, and environmental security. Enforcement actions against these environmental crimes are significantly underfunded, hindering efforts to combat them effectively. The total global funding available for international organizations like INTERPOL, UNEP, WCO, UNODC, and relevant conventions aimed at countering transnational environmental crimes is estimated to be only around 20–30 million USD (depending on the calculation). This lack of resources allows organized criminal networks to thrive in a favorable environment unless more funding is provided, and capacities are shared among agencies. Addressing broader environmental crimes has become particularly critical given the threats they pose to peace and security, which are essential for sustainable development. Environmental crime has expanded well beyond just wildlife trafficking, threatening the very foundations of health, development, peace, and security. Effectively tackling this issue, fostering peace and development, and restoring ecosystems and wildlife populations where feasible will necessitate a substantial global effort. This article examines the causes and impacts of the environmental crimes touching upon the global measures taken to combat such environmental crimes.

Key Words: *Environmental crimes, Wildlife Trafficking, Illegal Trade, Sustainable Development, UNEP*

Introduction

Environmental Crime is a global issue that brings about significant harmful effects on the environment, society, and economy, all of which affect human rights and public health. It encompasses illegal activities related to the environment, biodiversity, or natural resources. There are typically five primary categories of environmental crimes: illegal logging, fishing, and mining, along with offenses that threaten wildlife and cause pollution. Often referred to as

environmental crime (which will be used interchangeably with environmental crime in this paper), it is becoming increasingly prevalent and refined. This type of crime ranks as the fourth largest form of transnational organized crime, valued annually between 90 and 258 billion dollars, with a growth rate 2-3 times greater than that of the global economy. While the crisis surrounding iconic wildlife has brought focus to illegal activities involving animals, the impact of environmental crime extends far beyond just wildlife offenses.

It is labeled a 'crime' because it poses risks to human health and results in irreversible harm to the environment. Such extensive and lasting damage will inevitably have significant consequences for both present and future generations, threatening the principle of Sustainable Development. The serious and widespread effects of these actions necessitate the imposition of criminal penalties for environmental offenses. There can be no justification for such egregious acts if their costs outweigh any potential benefits. The ultimate goal appears to favor either corporations or individuals, with such acts transparently conducted for profit.

Currently, environmental crime ranks among the most profitable types of criminal activity, making it unsurprising that organized crime groups are attracted to it. While measuring environmental crime can be challenging, Interpol estimates that the global wildlife crime market is worth billions annually, and the World Bank suggests that illegal logging results in a loss of approximately \$15 billion in revenue and taxes for developing nations each year.

Definition of Environmental Crimes

The concept of environmental crime emerged in the 1990s, offering a new perspective on criminal activity. It encompasses various ideas surrounding environmental harm and neglect, regardless of the extent of the damage. One such idea, introduced by Walters in 2010, is eco-crime, which highlights environmental risks, rights, and regulations. While there have been several international efforts to define "environmental crime," no consensus has been reached.¹ The definition of environmental crime varies based on the nature of the harm, the individuals involved, and the criteria used to assess the actions linked to these crimes. Generally, "environmental crime" is viewed as a broad term for illegal activities that harm the environment, aimed at benefiting individuals, groups, or businesses through the exploitation or destruction of natural resources, including serious crimes and global organized crime.

¹ <https://www.unep.org/news-and-stories/story/environmental-crime>

International environmental crime encompasses five major categories of offenses recognized by organizations such as the G8, Interpol, the EU, the UN Environment Programme, and the UN Interregional Crime and Justice Research Institute². These categories are:

1. The illegal trade in wildlife, violating the 1973 Washington Convention on International Trade in Endangered Species of Fauna and Flora (CITES).
2. The illegal trade in ozone-depleting substances (ODS), contravening the 1987 Montreal Protocol.
3. The dumping and illegal transportation of various hazardous wastes, in violation of the 1989 Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal.
4. Illegal, unreported, and unregulated (IUU) fishing that breaches regulations set by regional fisheries management organizations (RMFOs).
5. Illegal logging and timber trade occurring when timber is harvested, transported, purchased, or sold against national laws. Currently, there are no binding international regulations governing the international timber trade, except for endangered species covered by CITES.

The European Commission suggests that environmental crimes are “infringements of relevant legal obligations that can cause significant harm or risk to the environment and human health and are or can be addressed through criminal law.”³In extension, environmental crime also includes offences in relation to endangered species (fauna and flora), which is often referred to under different names such as wildlife or CITES⁴ crime.

The International Consortium on Combating Wildlife Crime (ICWC) defines ‘wildlife crime’ as the taking, trading (supplying, selling or trafficking), importing, exporting, processing, possessing, obtaining and consumption of wild fauna and flora, including timber and other forest products, in contravention of national or international law.

Thus, Environmental crimes can be broadly defined as illegal acts which directly harm the environment. They include illegal trade in wildlife; smuggling of ozone depleting substances

² Debbie Banks, Charlotte Davies, Justin Gosling, Julian Newman, Mary Rice, Jago Wadley and Fionnuala Walravens. ENVIRONMENTAL CRIME, A threat to our future by ENVIRONMENTAL INVESTIGATION AGENCY (EIA) October 2008 ISBN: 0-9540768-5-0

³ <https://environment.ec.europa.eu/>

⁴ Convention on International Trade in Endangered Species of Wild Fauna and Flora

(ODS); illicit trade in hazardous waste; illegal, unregulated, and unreported fishing; and illegal logging and the associated trade in stolen timber.

Causes of Environmental Crimes

Each year, environmental crime earns criminal enterprises tens of billions of dollars, and this trend is increasing. This rise can be attributed in part to the expansion of international and regional environmental agreements that have led to stricter regulations on commodities. Additionally, criminal organizations are diversifying their operations into new areas such as counterfeiting and environmental offenses. By nature, environmental crimes are transnational and involve international criminal networks. For instance, a tiger skin or ivory tusk travels through multiple intermediaries from the site of poaching to the final buyer. Similarly, illegally harvested timber can journey across the globe, from the forest to the mill, before being sold as finished wood products. The following are majorly considered as the factors that cause environmental crimes.

- A. **Poverty** - It is seen as a fundamental factor because it facilitates the involvement of low-level criminals, smugglers, and couriers. It significantly contributes to bushmeat poaching as those in impoverished situations hunt to fulfill their basic needs. Poaching is associated with the loss of hunting rights, land dispossession in favor of protected areas, and the absence of economic and educational opportunities that perpetuate poverty.
- B. **Demand** - The high demand for various illegal goods, including wildlife, timber, pulp, cheap unregulated chemicals, and unregistered gold and minerals, ensures the persistence of recruitment and illegal trade due to the profits involved. Rare and unique illegal wildlife items are highly valued by buyers, which drives prices upward. Even if initiatives aimed at reducing poaching on the supply side are effective, they might inadvertently lead to higher prices. For instance, the demand in China caused the price of ivory to rise from USD 750 per kilogram in 2010 to USD 2,100 per kilogram in 2014, despite a significant decline of 50% between 2014 and 2015. Currently, even with a price drop, ivory still fetches around USD 150 per kilogram in African domestic markets, yielding substantial profits. The demand for ivory and rhino horn in Asian markets, used for decorative purposes and traditional medicine, is driven by a culture that values conspicuous consumption. Furthermore, three-quarters of urban Chinese individuals who reported consuming illegal tiger

products preferred wild tigers over those raised in captivity, and 88 percent knew that buying or selling products made from tigers was illegal.

- C. **Low Risk High Income** - After many years of laws, practices, law enforcement, and legal actions aimed at tackling drugs, prostitution, and human trafficking, these traditional criminal areas are regarded as higher risk, though they continue to thrive. In contrast, environmental crimes present a low-risk and lenient setting where commodities such as timber, charcoal, gold, and minerals can be easily moved with minimal bribes or even basic forged or acquired "permits." ⁵The situation is significantly worse for waste products, especially electronic waste: if categorized as second-hand items, criminals can handle and dispose of it recklessly. Hazardous materials may be mixed with regular trash, making inspections unlikely.
- D. **Lack of Enforcement Forces** - Numerous countries in Africa and Asia have some of the lowest levels of police personnel per capita, alongside pervasive corruption and diminishing resources. Cost estimates from the 1980s and 1990s indicated that effective law enforcement expenses would range from USD 200 to 400 per square kilometer. The Selous Game Reserve, which houses the largest population of Savanna Elephants in Africa, was established in 2003 at a cost of less than USD 3 per square kilometer, or about 1% of the necessary funding. In many developing nations, the prosecution and judiciary face similar crises due to their significant underfunding. For instance, a comparison of spending on police, prosecution services, and courts showed that in North America, 43% of the budget was allocated to prosecution and courts, while only 16% was allocated in Southern Africa. This lack of funding allows poachers and transnational criminal organizations to flourish. Additionally, political interference from local power brokers can hinder the efforts of law enforcement, leading to demotivated police and a lack of proactive measures in the field.⁶

Impacts of Environmental Crimes

Environmental crimes have numerous detrimental effects, including hindering sustainable development and accelerating climate change, particularly through increased tropical deforestation. They also significantly weaken the rule of law and good governance, and can

⁵ "The Elephant Poaching Crisis in Tanzania: A Need to Reverse the Trend and the Way Forward,"

⁶ Ibid

escalate geopolitical conflicts. Additionally, these crimes rob governments of substantial revenue that could otherwise be invested in development and undermine legitimate businesses and markets. Moreover, organized criminals often take advantage of struggling communities by hiring local residents to help carry out environmental crimes. With limited job opportunities, these individuals may end up relying on criminal networks for their livelihoods. These consequences highlight the urgent need for the international community to view environmental crimes as major threats to peace and sustainable development, and to enhance environmental legal frameworks while implementing coordinated strategies to effectively combat these offenses.

A. Environmental Impacts - Numerous studies have highlighted the environmental consequences of different forms of environmental crimes. These offenses have been linked to issues such as environmental degradation, habitat destruction, and ongoing pollution. Notably, illegal wildlife trafficking is a major threat to biodiversity, leading to the extinction of species and the potential spread of invasive species. Furthermore, illegal logging increases the risks of food shortages, landslides, and coastal erosion. Illegal fishing, which falls under the broader category of fisheries crimes, results in overfishing, impacts marine biodiversity, and threatens food security. Pollution-related crimes, including unauthorized waste dumping and trafficking, contribute to global contamination of air, land, and water systems (including groundwater and rivers), while endangering local ecosystems and harming plant and animal health. Illegal mining has also emerged as a significant public concern due to its adverse environmental effects, which encompass mercury poisoning from small-scale gold mining, destruction of native flora and fauna, pollution, damage to landscapes, and risks of radiation. Various forms of arable land, economic crops, and trees are adversely affected by these activities.

B. Human Health Impacts - Environmental crimes negatively impact human health and well-being in various ways. For instance, activities like deforestation and land use changes can facilitate the emergence of new diseases that jump from animals to humans, as seen with the unusual spread of diseases such as Ebola and Lyme disease. Pollution-related offenses can lead to death or serious disabilities, particularly in the poorest countries. A comprehensive report by the International Labour Organization (ILO) highlighted electronic waste (e-waste) as one of the

fastest-growing illegal markets⁷. Moreover, fine particulate matter from areas involved in e-waste recycling might lead to inflammation, oxidative stress, and DNA damage. Additionally, the illegal production and use of substances like CFCs and HCFCs, which deplete the ozone layer, increase the risk of skin cancer, photoaging, cataracts, and weakened immune systems.

C. Socio-Economic Impacts - The illegal exploitation of natural resources has considerable socioeconomic consequences for individuals, communities, businesses, and governments. Environmental criminals undermine legitimate markets by stripping lawful players of their resources and income, and by damaging industries, which threatens the livelihoods of many workers across various sectors. A study by the American Forest & Paper Association found that illegal logging results in a global decrease in timber prices of 7 to 16 percent, depending on the specific product, costing U.S. companies at least \$460 million annually. The World Wildlife Fund (WWF) points out that illegal fishing jeopardizes the livelihoods of coastal communities worldwide, particularly in developing countries with fragile governmental structures.

D. Impact on Sustainable Development - Environmental crime is on the rise, threatening not only wildlife populations but entire ecosystems, sustainable livelihoods, and government revenue streams. The efforts of the UNODC to tackle wildlife crime play a crucial role in achieving Sustainable Development Goals (SDGs) 3, 13, 14, 15, and 16. Safeguarding wildlife and plant life is essential in mitigating the risks associated with zoonotic diseases, thereby supporting SDG 3, which focuses on good health and well-being. Wildlife crime leads to deforestation and the decline of numerous species of plants and animals, as well as affecting marine resources, which harms entire ecosystems and contributes to climate change. Therefore, initiatives aimed at meeting the targets of SDG 13 related to climate action are closely linked to addressing wildlife crime.⁸ Additionally, the UNODC's efforts to combat illegal activities that threaten ocean health, including serious offenses within the fisheries sector, contribute to the achievement of SDG 14, which emphasizes life underwater.

⁷ ILO, 2012

⁸ UNODC, Global Programme for Combating Wildlife and Forest Crime: Annual Report 2020, p.9ff

E. Impact on Climate Change - The exploitation of the environment by criminal organizations leads to environmental degradation and a scarcity of resources, which further fuels climate change. For instance, illegal logging intended for agricultural expansion accounts for nearly half of all deforestation in tropical regions. These harmful activities intensify climate change and its effects, including extreme weather, droughts, dwindling resources, and population displacement. As these challenges strain local economies and communities, they foster instability and give rise to new criminal enterprises, such as water mafias that control water distribution. While severe weather increasingly impacts regions worldwide, the greatest risks are concentrated in areas already facing significant political and socioeconomic marginalization and vulnerability.

International Measures Taken to Combat Environmental Crimes

The UN Environment study revealed several significant deficiencies in addressing environmental crime. It highlighted issues such as insufficient data, knowledge, and awareness, along with a lack of commitment and governance from institutions, inadequate enforcement capacity, and weak national and international cooperation and information exchange among authorities. Furthermore, there was a noted absence of involvement from private entities and local communities. To address these deficiencies, the international community needs to reinstate environmental crime initiatives, implement coordinated actions and information sharing, recognize and tackle environmental crimes as a substantial threat to peace and development, and strengthen the rule of environmental law across all levels.

To effectively address environmental crimes, the international community has established several Multilateral Environmental Agreements (MEAs) that include provisions related to international trade. These agreements encompass the Convention on Trade in Endangered Species of Wild Fauna and Flora (CITES), the Montreal Protocol on Substances that Deplete the Ozone Layer, the Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal, the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Cartagena Protocol on Biosafety, and the Minamata Convention on Mercury.⁹

⁹ [ICCWC - International Consortium on Combating Wildlife Crime | CITES](#)

Speaking of Institutional response at the international level, apart from the allied organisations of United Nations there have been a various other institutions established to respond to the environmental crimes. The United Nations Office on Drugs and Crime (UNODC) was established to create a safer world by eliminating the dangers posed by drug abuse and associated criminal activities. In several countries, the UNODC focuses on enhancing crime prevention efforts and supporting reforms in criminal justice. The European Commission has introduced a proposal for a new EU Directive aimed at combating environmental crimes, aligning with a core commitment of the European Green Deal to strengthen environmental protection through the enforcement of criminal law by Member States. Additionally, the International Consortium on Combating Wildlife Crime (ICCWC) is a coalition of five inter-governmental organizations focused on providing coordinated assistance to national wildlife law enforcement agencies, as well as supporting sub-regional and regional networks that safeguard natural resources. INTERPOL and the World Customs Organization (WCO) have teamed up to launch a worldwide enforcement initiative against wildlife and timber crime, disrupting criminal networks and leading to numerous arrests.

Regarding international judicial responses, there are no specialized courts or tribunals dedicated to handling environmental cases related to international disputes. The only two courts available for such matters are the International Court of Justice(ICJ) and the International Criminal Court, both of which infrequently address cases involving environmental offenses. Costa Rica vs. Nicaragua, 2010, Whaling Case¹⁰, Pulp Mills on the River Uruguay Case¹¹ are few landmark cases where ICJ has intervened in relation to environmental crimes¹².

Although environmental crime is often not a high priority globally, there are instances where creative cooperation and proactive enforcement, supported by political commitment, have led to remarkable outcomes. Notable examples of international enforcement efforts include Asia's Project Sky-Hole Patching, the US' Operation Cool Breeze, Indonesia's Operation Hutan Lestari, Zambia's South Luangwa Conservation Society, and Operation DEMETER VI.

¹⁰ Australia v. Japan, 2014

¹¹ Argentina v. Uruguay, 2006

¹² <https://www.icj-cij.org>

Conclusion

Addressing the significant global issue of environmental crime necessitates a suitable and proportional response to bring it down to levels where it no longer jeopardizes community safety or the survival of wildlife. Determining what constitutes an “acceptable level” of such crime is challenging, but an effective response would involve all relevant stakeholders doing everything feasible. Currently, initiatives aimed at tackling environmental crime do not meet this standard. The detailed analysis suggests a need for collaboration across different sectors and agencies at both national and international scales regarding information sharing, analysis, prevention, enforcement, and recovery from environmental offenses. Achieving this across the UN requires building consensus, sharing information, and fostering collaboration between agencies. In addition, it necessitates a unified command and coordinated efforts in implementing concrete, targeted plans within individual countries. This involves having national coordination led by a single agency that works closely with other relevant organizations. Strengthening economic incentives, government institutions, and raising awareness is also crucial. Efforts should include developing plans for alternative livelihoods, economic incentives, and consumer awareness in recipient nations, alongside potential restoration initiatives, all designed in alignment with enforcement and protection measures. Moreover, tailored programs should be established for full engagement, along with the commitment and cooperation of donor communities, which should coordinate through a central point within the country to prevent duplication or disjointed efforts. Thus, by adopting a diverse strategy the incidents of environmental crimes can be kept under control and promote a more sustainable future.

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