



## Examination of the Efficacy of International Law in Combatting Trans-Border Environmental Crimes

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**Abstract.** This Research explores how international law regulates trans-border environmental crimes such as illegal logging, wildlife trafficking, and transboundary pollution. Those crimes pose an exceptional challenge to the usually state-based legal regime at a time of globalization, which further complicated governance over the environment. This research assessed the suitability of international law in addressing trans-border environmental crimes. The doctrinal method is employed in this research through a review of international treaties, conventions, and enforcement mechanisms in order to assess their effectiveness in controlling these illicit activities. Case studies from different regions in the research point out the deficiencies in the current legal structure, besides corruption, weak governance, and lack of capacity to enforce them in source countries. The research suggests improvements in international cooperation, capacity building, and enforcement. The findings could help construct more efficient legal responses for the protection of global ecosystems from trans-border environmental crimes.

### 1. Introduction

Environmental crimes are illicit activities, which directly damage the environment, including natural resources such as air, water, soil, and biodiversity (Ukhurebor et al., 2024). They comprise a long list of activities that go against the laws and rules on environmental protection, thus causing considerable

harm to ecosystems and human health. The impact of such crimes goes beyond the instant degradation of the environment and leads to long-term ecological imbalance and loss of biodiversity, leading to local and global economic adversity. These environmental crimes can be categorized into several groups, including trade in wildlife (Aidonjio, P.A. et al., 2023). This will imply poaching, trafficking, and selling of endangered species, parts, or products such as ivory, rhino horn, and exotic pets trade among others in wildlife products. Illegal wildlife trade is among the greatest threats which biodiversity is facing today since it makes species extinct and interferes with ecosystems (Anani et al., 2023). Conversely, illegal logging is an unauthorized harvesting, transportation and sale of timber. Most of the time, illegal logging is carried out in protected forests and conversation places, which eventually leads to deforestation, destruction of habitats, and hence loss of biodiversity. Illegal trade of timber contributes towards climate change through the released stored carbon in huge proportions. illegal, unreported, and unregulated (IUU) fishing represents another environmental crime, which depletes fish stocks, damages marine ecosystems, and finally leaves food security open to threats (Aidonjio et al., 2021). These IUU fishing encompasses activities such as overfishing, illegal fishing method, and fishing in forbidden areas. This IUU fishing underpins the sustainability of marine resources and people's livelihoods based upon them. We also have illegal

waste disposal, particularly hazardous wastes, which consist of unauthorized release of waste materials in manners that break environmental laws. It comprises the dumping of toxic substances, electronic waste, and industrial chemicals, often in countries with weak regulatory frameworks (Majekodunmi et al., 2022a). Such practices have grossly polluted the soil, water, and air and pose a serious health risk for human beings and wildlife.

Another category is environmental pollution crimes, which involve the willful discharge of pollutants into the environment beyond their legally permissible limits or in contravention of regulations. It could be in the form of industrial emissions that causes air pollution, discharging untreated wastes into water bodies that cause water pollution, and lethal chemical contents that cause land pollution (Ukhurebor & Aidonojie, 2021). These have very dire effects on human health, ecosystems, and the global climate. We also have illegal land conversion and deforestation, which refers to the unauthorized clearing of forests, wetlands, or any other natural habitats for agriculture, urbanization, or industrial development. This causes deforestation, habitat loss, and increases carbon emissions. Deforestation can be considered one of the major causes of climate change and loss of biodiversity issues with extremely grave concerns for global environmental sustainability (Anani et al., 2022). Environmental crimes transcend international boundaries and affect several countries thereby causing a unique challenge in the detection, enforcement, and prosecution of such crimes. This is because they involve complicated networks linking perpetrators, intermediaries, and consumers across legal jurisdictions. Environmental crimes are often enabled by global supply chains and trade networks since they stretch across many countries (Aidonojie, et al, 2024). For instance, illegally flowing timber may be driven across many borders before it reaches the last destination to be sold as a legal product. The same happens with illegal wildlife products, which are normally smuggled through complicated routes involving several countries, hence too difficult to trace and intercept. The environmental effects of these crimes do not stop at the borders of the countries where they take place. For example, illegal deforestation in one country can lead to regional climate change affecting the neighboring countries. Hazardous waste dumping or transboundary pollution, such as river contamination, can seriously affect downstream country ecosystems and communities.

Jurisdictional problems crop up in criminal acts that involve more than one country that has different legal traditions, regulatory regimes, and levels of enforcement capacity (Imoisi et al., 2023). This lack

of coordination opens the way for criminals to exploit gaps in enforcement and elude prosecution. There are also differences between countries in the way crimes are legally defined, penalized, and ranked in terms of enforcement priority, which often hinders collective action against such crimes. Organized crime networks also facilitate large-scale transboundary environmental crimes. They are very sophisticated and use corruption, fraud, and even violence in their operations (Mukhlis et al., 2023). They exploit poor governance, lack of enforcement, and corruption in some areas to move goods illicitly across borders which makes it difficult to break such networks and the perpetrators hard to prosecute. In most developing nations, cases of environmental laws being poorly implemented are very high, whereas corruption cases are also high, hence giving ample avenues for criminals to freely operate. Lack of international cooperation and harmonization of legal frameworks adds to the problem, whereby criminals take advantage of regulatory loopholes and elude detection. Such environmental crimes are a threat not only to the environment but also to the rule of law, economic stability, and human rights. Effective responses call for robust international legal frameworks with coordinated enforcement efforts, technological innovation, and local community involvement. In this way, the international community will help to struggle against transborder environmental crimes effectively.

## 2. Theoretical Framework and Literature Review

Global Environmental Governance GEG theory (Najam et al., 2006) deals with problems in the global environment. Emphasizing international cooperation, multilateralism, and international institutions in dealing with environmental challenges, this theory is appropriate for the study at hand and it helps furnish an understanding on how international legal frameworks in a broader governance context. It helps one to understand the challenges posed by the coordination of responses to transboundary environmental crimes and the role played by various states, international organizations, and NGOs (Aidonojie et al., 2022). We also have the regime theory, which analyzes how international regimes form, function, and evolve sets of principles, norms, rules, and decision-making procedures around which actors' expectations converge in a specific issue area (Hynek, 2017). Within environmental law, regimes, such as the Basel Convention on Hazardous Waste, or the CITES, are significant in the governance of specific environmental issues. This theory helps to explain how specific environmental regimes function, how well-equipped they are to regulate state behavior,

and why they all too often fail to cope legitimately with transborder environmental crimes. It also considers conditions that make these regimes most effective, such as the presence of strong enforcement mechanisms or high state commitment levels (Ikubanni et al., 2024).

There is also the legal pluralism theory provides that there are several legal orders within one social field. In international environmental law, it includes the interaction between international law, regional agreements, national laws, and customary laws (Benda-Beckmann & Turner, 2019). Legal pluralism therefore gives a framework in which to understand complexities while seeking to enforce international law on different jurisdictions. This view is rooted in the necessity for coordination and harmonization among the numerous legal systems if the fight against trans-border environmental crimes is to be effective. Based on the works of Harold Koh, the Transnational Legal Process TLP theory emphasizes the operations involved in interpreting, internalizing, and enforcing international law across international borders (Aidonojie, E. C. et al., 2024). It specifically addresses the roles and activities of non-state actors, such as non-governmental organizations and transnational networks, in the formulation and implementation of international norms (Jefferies, 2021). TLP theory is also relevant to the current study in that it illuminates how international law can affect state behavior, the extent to which non-state actors are instrumental in enforcing environmental law, and how legal norms are internalized within domestic legal systems.

On the other hand, the compliance theory explains why a state complies with the law in question or violates it which includes domestic political pressures, international reputation, enforcement mechanisms, and the role of international organizations in the monitoring of compliance (Egielewa & Aidonojie, 2021; Aidonojie et al., 2020). The theory is central to assessing the capacity of international law to address transborder environmental crimes. The environmental justice theory is essentially premised on the fair distribution of environmental benefits and burdens, focusing on marginalized communities. It points out how environmental injustices and regulatory failures disproportionately affect vulnerable populations (Schlosberg, 2007). EJ theory has a bearing on the study in as much as it offers a point of reference through which various community triggers in transborder environmental crime can be traced and consequences felt by populations. It also emphasizes the need to incorporate the principles of justice and fairness in the design and formation of international legal structures.

Pioneering international agreements, such as the 1972 Stockholm Declaration and the 1992 Rio Declaration on Environment and Development, set in motion the framework for a planetary approach toward environmental protection. These documents outlined the need for states to work together in facing environmental challenges and balancing environmental protection with economic development. Scholars like Patricia Birnie, Alan Boyle, and Catherine Redgwell (2009) traced international environmental law from its historical roots and noted that this field of law has grown tremendously since the middle of the 20th century. In this respect, the main milestone in the process of maturity for international law would be such multilateral environmental agreements as the Convention on International Trade in Endangered Species of Wild Fauna and Flora, CITES, which was adopted in 1973; the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, which was adopted in 1989; and the 1997 Kyoto Protocol (Birnie et al., 2009). This literature identifies several principles that lie at the heart of international environmental law, including state sovereignty over natural resources, the no-harm principle, the precautionary principle, and the principle of common but differentiated responsibilities (CBDR). These principles are very important in guiding the processes for the formulation and implementation of legal frameworks that seek to address transborder environmental crimes.

Desai, (2010) opines that Multilateral Environmental Agreements MEA play a vital role in harmonizing the national policies to promote international cooperation. Various scholars have also debated the effectiveness of MEAs in fighting transborder environmental crimes like Raustiala & Victor (2004) who hold the view that MEAs's effectiveness is usually limited by weak enforcement mechanisms, lack of political will, or resources to oversee high numbers of parties. Others, such as Sand (1999), state that the effectiveness of MEAs depends on the actual participation of states and the actual implementation at the national level. Sands & Peels (2003), argued that although the role of customary international law is very important, its application is sometimes faced with problems relating to interpretation and enforcement. Adil Najam, Mihaela Papa, and Nadaa Taiyab (2006) noted the Contribution of the UN System to the Emergence and Development of Global Environmental Governance: International Environmental Norm Creation, Coordination, and Response Formation, discussed this matter as well. They said that the United Nations had played a lead actor in making world environmental governance with institutions like the United Nations

Environment Programme and the United Nations Framework Convention on Climate Change. To further emphasize, LeRoy Paddock, David L. Markell, and Nicholas S. Bryner (2017) in their work *Compliance and Enforcement in Environmental Law* said that good compliance and solid mechanisms of monitoring are the keys to the success of every international environmental agreement; mechanisms such as provisions for requirements of reporting, peer reviews or a compliance committee must be resorted to as a means to ensure that states comply with their respective obligations (Masajuwa & Aidonojie, 2020). The literature, however, also points out that most of the time these mechanisms are made ineffective because they are hampered by limited resources, lack of political will, and voluntariness of many international agreements.

One of the major problems concerning the enforcement of international environmental law is that of jurisdiction. Since states are sovereign entities, they reserve the right to enforce laws within their territories, thereby making efforts to resolve transborder crimes extremely cumbersome. This challenge has been articulated in books such as *The Limits of International Law* by Jack L. Goldsmith and Eric A. Posner, (2005), wherein the authors have argued that state sovereignty at times often conflicts with the necessity of international cooperation on issues of the environment. According to Jacob Werksman, (2017) in his book *Greening International Institutions*, remarked that corruption is indeed pervasive and seriously undermines the possibility of enforcement at both national and international levels. Jacob points out that the presence of corruption within the enforcement agencies and regulatory bodies provides for environmental crimes to take place but makes it very hard to apply the rule of law to the perpetrators. Moreover, it breaks citizens' trust in environmental governance, further undermining compliance efforts. Sumudu Atapattu (2015) argues that environmental crimes often affect vulnerable communities disproportionately and, therefore, international law should take measures to redress such inequities by inbuilt mechanisms of human rights protection in environmental agreements. According to her, more and more, there has been a trend in international environmental law to incorporate the concerns of environmental justice and human rights.

Despite a detailed review of the literature available on the effectiveness of international law on transborder environmental crimes, several gaps either remain uncovered or have not been fully explored (Imoisi & Aidonojie, 2023). This research would test the regional legal framework and efficiency of regional

organizations such as the African Union, the Association of Southeast Asian Nations, and the European Union, in association with global treaties. It would further try to assess how regional agreements address some specific environmental crimes and the interplay between regional and international laws in ensuring their effective enforcement. Another lacuna that this study will fill is the attention that has not been accorded to environmental justice and equity considerations. There will be an analysis regarding international law enforcement that incorporates environmental justice and equity considerations (Aidonojie, P. A. et al., 2024). This study will look into how transborder environmental crimes differentially impact vulnerable communities and will analyze the extent to which international legal frameworks deal with these imbalances.

### **3. Legal Frameworks for Combatting Transborder Environmental Crimes**

Most of the crimes have dimensions that cut across borders; hence, nations have the responsibility to collaborate in coming up with comprehensive legal frameworks on how to deal with these crimes. The existing legal frameworks range from international conventions and agreements to regional treaties and national legislation, all working in tandem in tackling these crimes.

#### **3.1 International Conventions and Agreements**

International conventions and agreements are at the core of global efforts on transborder environmental crimes. These legal instruments assign binding commitments to the signatory states and provide a framework for cooperation, enforcement, and monitoring (Antai, 2024). The most important international conventions and agreements dealing with various themes of transborder environmental crimes will be reviewed as follows:

##### **3.1.1 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal**

Adopted in 1989 and entered into force in 1992, the Convention is the central international treaty governing the transboundary movement and disposal of hazardous waste. The Convention seeks to protect human health and the environment from the adverse effects of hazardous waste by regulating its movement across borders and ensuring its environmentally sound management. Parties to this Convention are required to reduce the generation of hazardous waste to a minimum, ensure its environmentally sound

management, and reduce its transboundary movement to the minimum necessary. Under the Convention, a prior informed consent procedure is established to be applied in such a way that exporting states obtain the prior consent of the importing state before any shipment of hazardous waste. The Convention also prohibits the exportation of hazardous waste to those countries that are not signatories to this Agreement, as well as to countries lacking the capacity to manage such waste safely.

Although the Convention has, in principle, been an instrument of immense value for curtailing the illegal hazardous waste trade, some major problems fundamentally undermined its effectiveness. Some of these problems are weak mechanisms for enforcement, limited capacity in developing countries for management, and difficulties in monitoring and tracking shipments of waste. Furthermore, the reliance of this convention on national enforcement turns out to have inconsistent application within states, while some states seem either not to have the resources or the political will for effective implementation (Antai, 2024).

### **3.1.2 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**

CITES is a global agreement adopted in 1973 to regulate international trade in wild animals and plants to ensure their survival is not threatened. The Convention covers a very wide range of species from elephants and rhinos to orchids and cacti by controlling their trade through a permit and certificate system. CITES classifies species into three appendices based on their conservation status. Appendix I comprises species threatened with extinction, for which the trade of the species is generally prohibited. Appendix II includes species not necessarily threatened with extinction but requiring controlled trade. In Appendix III come species protected in at least one country that has requested assistance from other parties to CITES in controlling their trade. Under the Convention, each Party is obligated to designate Management and Scientific Authorities, which are responsible for issuing the required permits and certificates for trading listed species. Besides, CITES provides for inter-party cooperation through information exchange and enforcement coordination.

Though CITES has had some success in terms of increasing awareness about the conservation of endangered species and regulating their trade, various factors undermine its effectiveness. The problems range from poor enforcement in developing countries

to a booming illegal trade in wildlife fueled by high demand and the enormous profits accrued. There is, therefore, the need for stronger enforcement and cooperation between parties. Moreover, the regulation of trade alone by the Convention does not account for a lot of other threats to species; for example, habitat loss through forest clearing and climate change.

### **3.1.3 Paris Agreement on Climate Change**

The Paris Agreement is an historic treaty adopted in 2015, with effect in 2016 that unites almost all nations in the fight against climate change by keeping global warming well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C. The Agreement is premised on the United Nations Framework Convention on Climate Change UNFCCC and represents a commitment by the world to limit greenhouse gas (GHG) emissions and enhance resilience to the negative impacts of climate change. Every party to the Paris Agreement is committed to submitting nationally determined contributions that outline its actions to reduce GHG emissions and adapt to climate change. The Review Process of the Nationally Determined Contributions NDCs happens once every five years, and the parties are to become more ambitious in terms of their commitments. It includes an element of a transparency framework, providing for tracking and reporting on the implementation of NDCs and the progress realized toward attaining the set goals. It also appeals for financial support, technology transfer, and capacity-building for the implementation of mitigation and adaptation activities in developing countries.

The Paris Agreement is a high-point achievement of global climate governance, with its near-universal participation. However, it depends on the will of the parties to deliver on commitments and to enhance ambition over time. The fact that there are no binding enforcement mechanisms further undermines the chances of remedying non-compliance. The effectiveness of the Paris Agreement will ultimately lie in continuous international cooperation, political will, and mobilization of resources for climate action.

### **3.2 The Role of International Bodies**

International organizations, especially the United Nations Environment Programme, Interpol, and World Customs Organization, amongst others, assist in carrying out international environmental law very aggressively. These agencies ensure cooperation, technical assistance, and compliance monitoring of states with international agreements. The United Nations Environment Programme UNEP was

established in 1972 and is the leading global environmental authority that coordinates the United Nations' environmental activities. The mission of UNEP is to provide leadership and encourage partnership in taking care of the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations. UNEP supports the development of international environmental law provides expertise, and facilitates negotiations on environmental agreements. It played a very fundamental role in the adoption of various essential conventions like the Basel Convention, CITES, and the Paris Agreement. The organization also extends support to countries for implementing international environmental agreements by way of technical assistance, capacity-building, and finances. UNEP helps developing countries in the areas of strengthening their environmental governance, and enforcement capacities, and also developing national legislation in compliance with international obligations. UNEP closely monitors new emerging global environmental trends, providing the scientific assessments that underpin policy decisions. It produces Global Environment Outlook (GEO) reports, which are overall evaluations of the state of the global environment, and surveys the efficiency of policy responses.

Though UNEP has been an instrument of pressure in the process of global environmental governance, several challenges face this program. First, limited financial resources are impeding the mandate to fully support the implementation of environmental agreements. Also, the coordinating role played by UNEP might be undermined by overlapping mandates between several international organizations, thus creating fragmentation and inefficiency in global environmental governance. Interpol assists in the enforcement of international environmental law through cross-border cooperation among law enforcement agencies. In addition, it has specialized programs targeting environmental crimes such as wildlife trafficking, illegal logging, and pollution crimes. Interpol also entertains provisions for training and capacity-building to enhance the ability of national authorities to combat environmental crimes. The World Bank and the Global Environmental Facility GEF provide financing for implementing the existing international environmental agreements. They fund projects with the main specific objective of reducing environmental degradation, improving conservation, and developing the capacity of developing countries in the enforcement of environmental legislation.

### 3.3 Regional Frameworks and Organizations

Often, these regional frameworks are based on international agreements and provide further mechanisms of implementation and cooperation. An example is the African Convention on the Conservation of Nature and Natural Resources, adopted originally in 1968 and revised in 2003, which constitutes a regional agreement aimed at promoting conservation and the sustainable use of natural resources within the African continent. It looks at various environmental problems, such as the preservation of wildlife, protection of habitats, and management of water resources. By the Convention, state parties are put under obligation to take measures for the conservation and use on a sustainable basis of natural resources, including the establishment of protected areas and regulation of exploitation of natural resources. It recognizes regional cooperation over certain environmental challenges, particularly those transcending frontiers. The revised convention has taken on board such questions as the prevention of pollution, hazardous waste management, and promotion of environmental education and public awareness.

The African Convention provides an all-inclusive framework for the conservation of natural resources on the African continent. However, its enforcement has been curtailed by numerous factors: the lack of effective mechanisms relating to enforcement, inadequate financial resources, and political will by some parties. The way the application of this provision differs greatly across the continent, with some countries doing excellently and others struggling behind to fulfill their obligations. Regional organizations, such as the African Union and the European Union, have been very instrumental in the implementation of regional agreements and therefore in the enforcement of international environmental law in the regions (Antai, 2024). The AU supports the implementation of the African Convention and other regional environmental agreements through its specialized agencies, such as the African Ministerial Conference on the Environment. Equally, the AU enables its member states to work together and provides regional frameworks for taking action on environmental issues, including cooperation in responding to transborder environmental crimes. To this end, the EU has, to date, enacted one of the most advanced environmental protection legal frameworks in the world, in the form of directives and regulations binding on its member states. In that sense, the EU takes overall responsibility for global environmental governance; it is frequently the negotiator of international environmental agreements and the entity

responsible for implementing them on behalf of its member states. It is in this regard that enforcement mechanisms, including the European Court of Justice, ensure that member states do their part to enact the EU's environmental law. The EU also provides financial and technical support to environmental protection efforts both within and beyond its borders (Edet, et al, 2022)

### **3.4 Domestic Implementation of International Obligations**

International environmental agreements are effective only when they are first applied nationally. Indeed, it is up to the countries to transpose these international obligations into domestic law and to ensure that these laws are enforced. The variation in the successes of national implementation is very wide-ranging dependent upon factors such as governance, resources, and political will. Germany is mostly cited as a model of the successful implementation of international environmental obligations (Kisubi, et al, 2024). The country has transposed international and EU environment protection standards into national legislation and provided for an effective enforcement mechanism. Their domestic laws on waste management, in particular, are strict, with effectively functioning monitoring systems and active contributions to international cooperation under the Basel Convention. Much has also been done in Costa Rica in the implementation of international environmental agreements, particularly about the preservation of biodiversity. The country has established extensive protected areas, together with strict wildlife protection laws and active participation in CITES. What has worked for Costa Rica is committed political will, effective enforcement, and a well-developed eco-tourism sector that provides funding for conservation. We have also seen unsuccessful national implementations like the Nigerian situation where implementation of international environmental agreements is hindered by weak governance, limited resources, and widespread corruption. Although Nigeria is a signatory to most key conventions, such as the Basel Convention and CITES, illegal wildlife trafficking, hazardous waste dumping, and other environmental crimes continue unabated. Infractions are rarely enforced; the penalties are very light and do not affect deterring offenders.

The challenges that best face this country underline the need for building up institutions, coordination of government agencies, and international support. India has significant challenges in the implementation of international environmental obligations, particularly in the context of pollution control and waste

management. While the country has enacted laws according to international agreements, the enforcement remains occasional, with high continuing levels of pollution. Some of the main contributory factors include industrial pollution, poor waste infrastructure, and lack of awareness. What the case of India demonstrates is that laws are not as important as their implementation and generation of public participation.

While large strides have been taken in developing these frameworks, their implementation and enforcement remain challenging. The success of international efforts against environmental crimes therefore lies in the readiness of states to comply with related obligations, the capacity of international and regional organizations to support enforcement, and national governments' ability to implement and enforce laws. In particular, moving forward, stronger cooperation and more effective enforcement mechanisms with increased support to developing countries are required if international legal frameworks are to grapple effectively with the growing threat of transborder environmental crimes.

## **4. Challenges to the Efficacy of International Law in Combatting Transborder Environmental Crimes**

International environmental criminal law assumes a major role in taking up transborder environmental crimes, but several challenges undermine its effectiveness. They range from the complexity of enforcement across different jurisdictions to the conflicts between national sovereignty and international obligations, resource and capacity constraints, corruption, weak governance, and fragmentation of the legal frameworks.

### **4.1 Complexity of enforcement across different jurisdictions**

Environmental crimes frequently involve activities across borders, making coordination between different countries with varying legal systems, enforcement capabilities, and priorities challenging. Environmental crimes, like illegal wildlife trading, hazardous waste dumping (Ekpenisi et al., 2024), and cross-border pollution, generally involve more than one country. The perpetrators may be based in one country, transport the illicit goods through another, and sell them in a third. Coordinating law enforcement across these jurisdictions is challenging because each country has its own legal system, law enforcement agencies, and priorities (Antai, Et al, 2024). Jurisdictional issues are still further complicated by differences in legal

definitions of environmental crimes, corresponding penalties, and procedures. Something, for example, considered illegal waste in one country may be legal in another (Aidonojie & Egielewa, 2020). This is how loopholes are created to be exploited by criminals.

This is further complicated because there is yet to be any uniform standard on environmental protection across countries. The majority of international agreements set very general goals and standards and the implementation is usually left to the different countries. This has led to a high variation in how the laws are enforced. There are countries with stringent regulations on these, and there are those where it is lax. The differing levels of development and legal sophistication of countries also mean that some may not have the capacity or resources to enforce international environmental laws effectively. This creates the issue of uneven enforcement, where environmental criminals take advantage of weak jurisdictions.

#### **4.2 Conflicts between National Sovereignty and International Obligations**

The second significant factor that challenges the effectiveness of international law to make a difference in deterring environmental crimes is the tension between national sovereignty and international obligations (Antai, 2024). Many countries are generally very cautious about losing the present leverage they have over their natural resources and environmental policy determined at home. Protection of national sovereignty is, in itself, one of the cardinal pillars of international law. States are generally averse to external control or dictatorship concerning environmental policy and interference in domestic affairs. This can sometimes translate into opposition to international agreements believed to be an encroachment on the sovereignty of a state. For instance, if a country is rich in natural resources, it may not be willing to effectively implement the international conservation treaty when it thinks that the implementation is going to alienate the country from exploring those resources for economic benefits. This might then create conflicts between national interests and international obligations (Akpanke, et al, 2022).

The challenge then becomes one of reconciling national sovereignty with the requirement of international cooperation. Indeed, very often, environmental crimes have impacts across borders and require collective action to deal with, which can be extremely difficult to achieve if states put their concerns for sovereignty above collective goals

(Ekpenisi, et al, 2024). Some international agreements attempt to temper this tension by building in flexibility concerning implementation for example, through voluntary commitments or differentiated responsibilities, but this can also result in weaker enforcement and less efficiency.

#### **4.3 Inadequate Resources and Capacity**

Resource and capacity are major challenges to the effective enforcement of international environmental law. In the majority of developing countries, the financial resources, technical expertise, and institutional capacity to apply and effectively enforce these international agreements are generally not available. Monitoring and enforcing environmental laws require huge financial resources, including funds for conducting agencies, monitoring equipment, and personnel training. Many developing countries lack the resources to make these efforts adequate, and weak enforcement, coupled with limited capacity to combat environmental crimes, predisposes these nations to huge environmental losses. These efforts at international cooperation, be it joint enforcement operations or cross-border investigations, also require certain resources not readily available in resource-constrained countries (Anifowose et al, 2024). In this respect, they might not be well-placed to participate in international enforcement activities.

In addition to resource constraints, most developing nations are characterized by a lack of trained personnel, poor infrastructure, and lack of access to technology. As such, this may result in inadequate execution of international environmental agreements by a country and eventually cripple a country's enforcement of its laws. These can be achieved through capacity-building using training programs and technical assistance; however, such involves a high demand for international support, as they are long-term investments.

#### **4.4 Corruption and Weak Governance**

Very broad issues, such as corruption and weak governance, have been impairing the effectiveness of international law in the prevention of environmental crimes. It runs from bribery among law enforcement authorities to manipulation of legal processes. In this way, corruption furthers environmental crimes by letting criminals go undetected, unprosecuted, or lightly punished. For example, bribes are given to officials who should monitor trade in wildlife or hazardous waste disposal, and by accepting these bribes, they connive with the wrongdoers and turn a blind eye (Gunawan et al., 2023). This can further

undermine the rule of law, eventually creating an environment where prosecution of environmental crimes is impossible and penalties cannot be enforced. Weakened institutions of the rule of law, through corruption in either the judiciary or police forces, grant immunity to criminals for their wrong deeds. On the other hand, it is vulnerable to bad governance, which is defined as a lack of transparency, accountability, or proper institutions, among others, making it harder to enforce international environmental law (Safi' et al., 2024; Mukhlis et al., 2024). Though not the case in developed countries, in countries that have weak governance, there may be environmental laws on paper but enforcement leaves much to be desired. Other governance challenges relate to political instability, lack of political will, and the influence of influential interest groups who might be hostile to environmental regulation. These can make international agreements hard to enforce, especially in countries where the environment is not one of the priorities.

#### 4.5 Fragmentation and Lack of Coordination

Indeed, large fragmentation of the legal regimes and a lack of coordination among various international, regional, and national bodies decrease the real effectiveness of international law about environmental crimes. International environmental law is filled with numerous treaties, conventions, and agreements; each one covers certain aspects of protection. Overlaps, inconsistencies, and gaps in existing legal coverage do develop, thereby complicating the coherent and coordinated approach toward combating environmental crimes. For instance, hazardous waste, biodiversity conservation, and climate change are dealt with under different treaties; however, most of these are interrelated. There is no overarching binding legal framework, and conflicting obligations are working against effective enforcement.

The challenges that fragmentation poses require increased coordination between international, regional, and national authorities through harmonization of legal standards, information sharing, and further development of cross-border cooperation among law enforcement agencies. Coordination is also provided in international agreements by international organizations like UNEP and regional organizations like the EU. These efforts, however, need to be enhanced through firm political will and resources. Another requirement is more integration of efforts with other fields of international law in the realm of environmental protection, such as trade, human rights, and development. Further integration of environmental considerations into more

comprehensive legal frameworks might contribute to identifying and resolving the root cause of environmental crimes and promote more sustainable development. If all these challenges are overcome, the global community will be better placed to evolve more appropriate legal frameworks, apply criminal law, and conserve the environment for future generations.

#### 4.6 Effectiveness of International Law on Combating Transborder Environmental Crimes Illegal

Logging is a huge problem in countries like Brazil, Indonesia, and the DRC of Congo. In that respect, illegal logging in the Amazon rainforest is one of the biggest deforestation factors, one of the important factors of global climate change, and a threat to indigenous communities in this area. World Bank peak estimates of illegal logging represented as high as 20 percent of the global timber trade, representing billions of dollars in economic losses per year (Mutawalli et al., 2024; Edetalehn & Aidonojie, 2023). It undermined the aims of legitimate forestry operations and reduced government revenues while promoting environmental degradation. International attempts at fighting illegal logging and timber trading include many agreements and initiatives, such as the Forest Law Enforcement, Governance, and Trade, or FLEGT, Action Plan. The FLEGT Action Plan was formulated by the European Union in the year 2003 with the prime objectives of improving forest governance and reducing illegal logging. Probably most critical is the EUTR, which places a ban on placing illegal timber on the EU market, requiring businesses to exercise due diligence. Case studies of verification at the origin of legality in timber-sourcing countries show improvement in forest governance and a decline in illegal logging. The EUTR has pushed importers to verify that supplies obtained are legally acquired, resulting in increased transparency in supply chains. Under the FLEGT Action Plan, there are provisions for voluntary partnership agreements with timber-producing countries to build capacity for local governance and enforcement. This would mean interlinking certification and verification systems within a country, providing ground for traceability and accountability in the trade of timber. The EUTR has led to some limited successes in terms of increasing transparency and reducing illegal imports of timber into the EU, but problems continue to occur due to patchy implementation across its member states and narrow enforcement capacity in source countries.

Another set of agreements in this regard is the Voluntary Partnership Agreements, VPAs. The VPAs are agreements between the EU and timber-exporting

countries to ensure their exports of timber are legally sourced. They involve reforms of forest governance in recipient countries, improved monitoring, and certification systems. They have brought improved governance of forests and reduced illegal logging in participating countries (Aidonojie, P.A., 2023; Oladele et al., 2022). For instance, Ghana and Indonesia have made certain steps toward putting their timber industries in order and increasing legal timber exports. We also know that, in many cases, political will and capacity are conditions precedent to the effectiveness of VPAs. In addition, we have agencies that are instrumental in supporting these efforts like the UN Food and Agriculture Organization and the International Tropical Timber Organization are both providing technical assistance, capacity-building, and monitoring for sustainable forest management and combating illegal logging. Indeed, these organizations are very instrumental in terms of support, but resource constraints and the wider national policy change needed at times greatly limit their impact.

There are numerous effort that have been set up to combat the wildlife trafficking, with the most considerable being the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). It regulates the trade on endangered species internationally under a system of permits and certificates for the species included in three appendices based on the protection level. On the other hand, many steps are advanced by CITES to regulate the trade, and indeed these have facilitated passing a lot of information among members of the public, thus creating awareness of conserving wildlife. For example, the ban on the international trade in ivory is vital in reducing poaching in some areas. For instance, CITES has considerably reduced the international ivory trade, especially in African elephants, during the 1990s. As a result of research conducted by the TRAFFIC network, there has been a decline in elephant poaching, especially in Kenya and Tanzania. The trend, in part, is by the measures put in place by CITES. The black-footed ferret The giant panda species recovery is, to some extent attributed to the protective measures put in place as one of CITES. It is, to date, the central mechanism which controls the cross-border trade in wildlife at a species level. It also has very efficient check and control systems. The enforcement was further enhanced with partnerships with organizations like World Wildlife Fund (WWF) and TRAFFIC, which also helped immensely in the conservation effort on the ground. Such flexibility, coupled with the amendments and listings, meant that CITES is now capable of rising to address new challenges posed by the illegal trade in wildlife. The illegal trade in wildlife, however, remains widespread

even in this situation. INTERPOL and World Customs Organization reports bring to light another huge multi-billion-dollar business that continues to thrive because of the battle with enforcement and prosecution. A case in point is the illegal pangolin trade; it is currently included under CITES, yet the trade still goes on in source and transit countries where enforcement rates are very low. According to studies done by TRAFFIC, internationally, the trade in pangolins continues. Inadequacy or weakness in enforcement is a major weakness, where in most countries, there lacks the resources and political will for effective enforcement of CITES regulations. Corruption and poor governance in source countries hamper enforcement efforts. Persistent demand for wildlife products fuels illegal trade, complicating enforcement and conservation efforts.

Another effort undertaken is through the installation of Wildlife Enforcement Networks. WENs are regional interconnectedness that promotes collaboration through law enforcement agencies to work against crimes associated with wildlife trafficking. They are anchored on sharing information, undertaking joint operations, and, most importantly, enhancing capacity. They have been fairly successful in progressively promoting effective cross-border collaboration and enforcement. For instance, the ASEAN-WEN has resulted in a number of high-profile arrests and seizures of illegal wildlife. We even have the United Nations Office on Drugs and Crime (UNODC), which has supported international efforts to engage member states in combating wildlife trafficking through capacity-building, technical assistance, and awareness-raising. In the wake of this, UNODC efforts have helped in the strengthening of the legal frameworks on this issue and enforcement.

The Basel Convention controls the transboundary movement and disposal of hazardous waste by Parties, requiring them to ensure that waste be managed in an environmentally sound manner. Because of this Basel Convention, general overview awareness and good practices about waste management were increased. Reports from UNEP and Basel Convention regional centers expose large enforcement and monitoring gaps of e-waste exports. It is the proliferation of e-waste in countries like Ghana and Nigeria that puts a limitation to the Basel Convention to handle modern waste management challenges. The Stockholm Convention on Persistent Organic Pollutants, which aims at eliminating or restricting the use of persistent organic pollutants, are harmful chemicals that persist in the environment and accumulate in living organisms. Yet another convention enacted to limit transboundary pollution is. It has had appreciable success by banning

or restricting several harmful chemicals and promoting safer alternatives. The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities of UNEP deals with the land-based source category in terms of marine pollution and hazardous waste. This it does by encouraging integrated coastal and river basin management. It has also supported a number of reduction initiatives for marine pollution and improvement of waste management. The real effect of such efforts is, however, usually limited because of a lack of comprehensive data and requirement for stronger national implementation. The effectiveness of international law in dealing with such transborder environmental crimes has both great successes and massive failures.

Successful interventions, like CITES or the EUTR, show how international legal frameworks are capable of inspiring positive environmental performance via strict compliance mechanisms, global cooperation, and effective regulation. It is in the implementation that challenges remain, from enforcement, coordination, and capacity building through the scourge of corruption and weak governance, lack of resources for effective implementation, problems with capacity and resources in waste management, demands for illegal wildlife products, and tracking and managing hazardous waste flows. Overcoming such challenges will certainly call for serious efforts from international, regional, and national institutions and bodies but also entails enhanced collaboration and investment of resources in strengthening enforcement mechanisms, governance, and legal framework reforming for improved responses to new environmental threats. In that respect, the international community must further collaborate and find new ways to overcome these challenges so that legal interventions are deployed effectively to combat transborder environmental crimes.

## 5. Conclusion and Recommendations

The effectiveness of international law in fighting transborder environmental crimes has been a mixed bag of successes and unfinished tasks. This conclusion will draw upon major findings to consider their implications for international law and policy, and finally, it looks toward the future of legal efforts in this critical area. The successes highlighted about by this work include the successes of international legal frameworks like the CITES, which has played a very fundamental role in regulating international trade in endangered species and resulting in reduced trade in some of the endangered species and an increase in global awareness. The EUTR and FLEGT Action Plan contributed to improved forest governance and a

reduction in illegal imports of timber into the EU. Despite CITES, illegal wildlife trafficking persists due to enforcement problems, corruption, and continuing demand for wildlife products. Basel Convention has monitoring and enforcement issues, more so with new forms of hazardous waste like e-waste. The FLEGT Action Plan and EUTR have limitations due to weak governance, corruption, and lack of adequate capacity for enforcement in source countries. Finally, the challenges of law enforcement across various legal and administrative frameworks have also hampered any serious efforts to effectively combat transborder environmental crimes. These issues on sovereignty mostly translate into reluctance or plain non-compliance with international regulations. Resources, capacity, and the related constraints, particularly in developing countries, also delimit the ability for effective enforcement of environmental laws.

The results, however, also stress the need for more resilient and adaptive international legal frameworks. Re-invigorating these existing agreements and forming new treaties with respect to new environmental dangers would enhance the effectiveness of international law. As for enforcement, proper enforcement is necessary. Improving the tools of monitoring, reporting, and enforcement by utilizing at best the role of technology and tightening international cooperation can plug the loopholes and enhance actual impact of legal frameworks. In terms of implementation and enforcement, there is a major requirement for capacity building in developing countries. International aid, capacity-building programs, and partnerships will be able to support these efforts or alleviate resource constraints. To enhance the efficacy of international law in fighting transborder environmental crimes, standardization of definitions, regulations, and penalties within international agreements should be reached to help cure the fragmentation of legal frameworks. For example, harmonization of the definitions of illegal logging and wildlife trafficking will reduce loopholes and inconsistencies in enforcement. There should also be mechanisms within existing treaties to provide for regular updates and adaptations in respect of emerging environmental threats and scientific developments. For instance, provisions within the Basel Convention could be provided for new types of hazardous waste like e-waste. In addition, strengthening compliance mechanisms through the line of action, including more robust monitoring and reporting requirements, regular audits and independent reviews, and stronger sanctions for non-compliance. Strengthened transparency and accountability measures should ensure that parties comply with their obligations. A comprehensive international treaty specifically

devoted to transboundary pollution that addresses lacunae in the Basel Convention and integrates new types of pollutants in particular, microplastics and electronic wastes should be introduced.

A new international accord based on CITES should be established, with a much greater emphasis on enforcement, demand reduction, and targeted support to source countries. It could provide for illegal markets, cross-border cooperation, and the newest monitoring systems enabled by satellite technologies, drones, and remote sensing for effective monitoring and tracking of environmental crimes associated with illegal logging and wildlife trafficking. Real-time data collection can also help in timely detection and response to violations. Mandatory reporting, with detailed data on enforcement actions and compliance, including challenges, by parties under international agreements, should be legislated. Regular reporting will establish transparency and accountability. Increased coordination and information sharing among national, regional, and international enforcement agencies needs to be encouraged. Joint task forces and regional cooperation networks can improve the effectiveness of enforcement efforts and take urgent action against environmental criminals.

They should be a fully-fledged development of capacity-building programs tailored to suit the needs of developing nations. Such programs need principally to be focused on training law enforcement, judiciary, and environmental managers, alongside technical infrastructure enhancement and improvement in data collection. It should also include deliberations on new initiatives aimed at the mobilization of financial resources to ensure environmental protection in developing countries. This could entail the establishment of dedicated funding mechanisms and incentivization to attract the private sector's investment in developing countries, such as through an international fund to combat illegal logging and wildlife trafficking. There needs to be a real increase in aid and international assistance to developing countries relating to environmental crimes. This aid should be focused on institutional capacity building, strengthening of enforcement mechanisms, and community-based conservation efforts. Partnerships of this nature can leverage expertise and resources for the most appropriate ways to address environmental challenges.

Develop integrated governance frameworks to enhance coordination between international, regional, and national bodies through aligning policies and sharing information to ensure that efforts complement each other rather than duplicate them. Regional

cooperation mechanisms for addressing transborder environmental crimes should be put in place. Regional agreements and networks can play a very instrumental role in enforcement, best practice, and response to common environmental threats. Global governance initiatives can be initiated with respect to integrating environmental concerns into larger policy fields of trade, development, and security. This holistic approach will help root out the causes of environmental crimes and promote sustainable development. Strengthening the role of international law in fighting transborder environmental crimes contemplates a multidimensional approach: legal frameworks, enforcement mechanisms, capacity-building, and global governance. This requires strengthening international legal instruments, improving enforcement practices, building capacity in developing countries, and encouraging cooperation at the global level, all of which will enable the international community to deal far more efficiently with the complexly interlinked challenges arising from environmental crimes. It is hoped that this set of recommendations, when implemented, shall offer protection to the environment much more effectively and also secure a sustainable future for one and all.

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