The Impact of Corruption on Biodiversity Conservation in Nigeria: A Review of Some Critical Issues

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Abstract

The rate of biodiversity loss and environmental degradation in Nigeria has reached an alarming level. While both natural and human factors contribute to this decline, corruption, encompassing theft, bribery, procurement fraud, nepotism, abuse of power, extortion, political patronage, and widespread impunity have significantly worsened the crisis. This study examines the link between corruption and biodiversity conservation using a structured conceptual framework and secondary data from international organizations, national agencies, academic institutions, peer-reviewed journals, books, legal reports, and governance and biodiversity databases. Through content and descriptive analysis, it explores how corruption intensifies biodiversity loss. Key findings indicate weak enforcement of environmental laws, a dysfunctional justice system, poor rule of law, institutional inefficiencies, negative attitudes among enforcement officials, and public disregard for regulations. These issues have led to overexploitation of resources, habitat destruction, deforestation, wildlife poaching, and air and water pollution. The broader consequences include severe biodiversity loss, ecosystem degradation, rising unemployment, increased poverty, widening income inequality, and higher crime rates. Addressing this crisis demands comprehensive reforms in Nigeria's governance, legal, and institutional systems, along with strict compliance with national and international biodiversity conventions. It also requires eliminating favouritism, discretionary practices, and arbitrary exemptions in natural resource licensing. Empowering local communities, strengthening community-based enforcement, integrating indigenous knowledge, and adopting digital tools for biodiversity monitoring are essential steps toward sustainable conservation.

Keywords*:* Biodiversity, Compliance, Corruption, Law Enforcement, Nigeria

1. Introduction

Corruption represents a pervasive global challenge that significantly compromises effective governance and undermines biodiversity conservation and sustainable development in numerous democratic states. Rather than serving the public interest, corrupt practices frequently confer undue advantages and private benefits to a privileged few, thereby impeding national progress and posing a severe threat to biodiversity. Empirical evidence underscores the nexus between corruption and environmental degradation. For instance, the 2020 International Criminal Police Organization (INTERPOL) report highlights the role of corruption in facilitating illegal logging and illicit timber trafficking (activities that not only result in the destruction of critical ecosystems but also jeopardize the livelihoods of communities dependent on forest resources). Such environmental crimes have triggered cascading socio-ecological consequences, including landslides and the loss of access to vital natural resources such as food, medicine, and fuel. Ranked among the most lucrative forms of transnational environmental crime, these illicit activities generate annual revenues estimated between $50 and $150 billion, resulting in substantial erosion of state tax revenues (INTERPOL, 2020).

The United Nations Office on Drugs and Crime (UNODC) also identifies illegal logging, wildlife trafficking, illegal mining, and waste trafficking as major transnational environmental crimes. Corruption facilitates these crimes through bribery, forged permits, and complicity of officials in customs, forestry, and law enforcement (UNODC, 2022a). In some of the countries of Latin America, such as Colombia, corruption has been identified as a primary enabler of environmental crime, contributing directly to biodiversity loss. Activities such as illegal mining, land encroachment, illicit logging, and wildlife trafficking persist due to corrupt networks involving bribery, forged permits, and the laundering of illegally sourced minerals (particularly gold) into formal markets. These practices subvert regulatory frameworks and allow environmental violations to proceed with impunity (World Wildlife Fund/Transparent Governance of Natural Resources [WWF/TGNR], 2021).

In Africa, illegal logging and wildlife trafficking are estimated to generate $23 billion annually (UNODC, 2022a). A 2023 UNODC report also emphasizes that corruption at border checkpoints and within regulatory agencies enables the laundering of illegal wildlife products into legal markets (UNODC, 2023).

In Africa a salient case in point is the Democratic Republic of the Congo (DRC), recognized as Africa's most biodiverse nation. The country harbours an exceptional array of species, including approximately 1,110 bird species, 227 amphibians, 1,528 fish species, 465 mammal species, 313 reptiles, and around 8,860 vascular plant

species (The Swiftest, 2022). Despite this ecological richness, the DRC is experiencing a marked decline in biodiversity due to a combination of legal and illegal exploitation of natural resources, exacerbated by systemic corruption (UNODC, 2022b; Itchoko & Tsopmo (2024). In 2022, the country ranked 166th out of 180 nations on Transparency International's Corruption Perceptions Index (CPI), with a score of 20 out of 100, significantly below the threshold associated with low levels of corruption (Transparency International, 2022).

Nigeria, another country endowed with rich biodiversity [ranked 11th in Africa and 35th globally in biodiversity conservation (The Swiftest, 2022)] also contends with entrenched corruption that the country's Economic and Financial Crimes Commission agency has estimated that more than US$ 380 billion of public funds have been stolen or wasted by various governments since their independence in 1960 (Itchoko & Tsopmo, 2024). In 2022, Nigeria was ranked 150th out of 180 countries on the CPI, with a score of 24 out of 100, indicating a high level of perceived corruption (Transparency International, 2022). This institutionalized corruption significantly undermines biodiversity conservation efforts. A notable example is the flawed allocation of oil exploration licenses in 2003, where corrupt practices led to the awarding of contracts to unqualified entities. This resulted in substantial revenue losses; for instance, some companies paid signing bonuses as low as $2.5 million for oil blocks valued at up to $25 million (Ezeamalu, 2018). In 2000, only $5 million was collected in signature bonuses, compared to an estimated potential of $248 million (Global Witness, 2006; Environmental Rights Action/ Friends of the Earth [ERA/FoE Nigeria] & Natural Justice, 2011; Extractive Industries Transparency Initiative [EITI] Nigeria, 2020). These irregularities have contributed to the overexploitation of oil resources, leading to environmental hazards such as oil spills and gas flaring, which have severely degraded ecosystems and accelerated biodiversity loss (Ezeamalu, 2018).

Given Nigeria's status as one of Africa's most biodiverse nations, hosting diverse ecosystems such as tropical rainforests, wetlands, savannahs, and coastal habitats, the preservation of its biodiversity is of critical importance. The country is home to several endangered species, including the Cross River gorilla, forest elephants, and rare plant species. Biodiversity plays a vital role in supporting the livelihoods of rural populations who depend on agriculture, fishing, and forest products (International Union for Conservation of Nature [IUCN], 2023)). Nigeria is also a signatory to key international environmental agreements, including the Convention on Biological Diversity (CBD) and the Paris Agreement, which mandate national actions to conserve biodiversity and mitigate environmental degradation. Nevertheless, the country continues to face significant environmental challenges,

including deforestation, poaching, illegal wildlife trade, and pollution, all of which are intensified by corruption (CBD, 2011).

Corruption remains a critical impediment to effective environmental governance in Nigeria. Public officials frequently accept bribes to permit illegal logging, mining, and unauthorized entry into protected areas. Compounded by weak institutional capacity and inadequate accountability mechanisms, such corrupt practices erode enforcement of environmental regulations and hinder the realization of sustainable development objectives.

In light of these challenges, this study examines the interplay between corruption and biodiversity conservation in Nigeria, with a particular focus on how corrupt practices undermine institutional efforts to preserve the country's rich biological heritage.

The study is organized as follows: it begins with an introduction, followed by a conceptual clarification, an examination of theoretical and empirical perspectives. This is followed by the research methodology, an analysis of the nexus between corruption and biodiversity conservation in Nigeria. Finally the development of a framework linking corruption and biodiversity conservation is presented.

2. Literature Review

2.1. Corruption and Biodiversity Conservation

Corruption is a widespread global issue that has prompted international attention and led to the development of international agreements aimed at combating it (UN, 2004). Despite the existence of these frameworks, corruption remains pervasive, particularly in developing countries.

According to scholars such as Rose-Ackerman (1978), Coolidge and Rose-Ackerman (1997), Tanzi (1998), Rose-Ackerman and Palifka (2016), Gupta (2019), Adeoye et al. (2020), Collier (2000), and Transparency International (2023), corruption refers to the misuse of public or institutional power for personal benefit. It erodes public trust, distorts governance, and negatively affects social, economic and environmental systems.

As noted by Rose-Ackerman and Palifka (2016), Pope and Jubb (2022), UNODC (2022c), and Transparency International (2023), corruption typically involves unethical or illegal behaviour by individuals or organizations in positions of authority. It manifests in various forms, including bribery (offering or receiving something of value to influence decisions), embezzlement (misuse of entrusted funds), nepotism or favouritism (favouring relatives or friends in appointments),

extortion (use of threats to obtain benefits), fraud (deception for personal gain), and clientelism (exchanging goods or services for political support).

In contrast, biodiversity refers to the full range of life forms within an ecosystem. It represents the variety of living organisms (ranging from microorganisms and plants to animals and humans), highlighting the richness and complexity of Earth's biological systems. Biodiversity reflects the intricate interdependence of species and ecosystems that sustain the ecological balance (National Geographic Society [NGS], 2019).

Three main types of biodiversity collectively contribute to the complexity of life on Earth. The first is genetic diversity, which refers to the variation in genes within a species, ensuring that no two individuals are identical. The second is species diversity, which reflects the number and distribution of different species within a habitat, with higher diversity typically found in biologically rich areas, such as coastal zones. The third is ecological or ecosystem diversity, which refers to the variety of habitats and ecological communities within a given region. Together, these dimensions form a complex and interdependent web of life that sustains the planet (Kearns, 2010; NGS, 2019).

Biodiversity conservation involves the protection, management, and sustainable use of biological diversity to benefit both present and future generations (Byjus, n.d.; Kearns, 2010; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2024; World Wildlife Fund [WWF], 2024, 2025). This practice serves three key functions: preserving species diversity, promoting sustainable ecosystem use, and maintaining the ecological processes essential to life (Byjus, n.d). Biodiversity conservation is generally divided into two approaches: in situ and ex situ (Byjus, n.d). In situ conservation involves protecting species within their natural environments, such as national parks, wildlife sanctuaries, and biosphere reserves. In contrast, ex-situ conservation involves conserving endangered species in artificial environments such as zoos, botanical gardens, gene banks, and nurseries (Byjus, n.d.).

2.2. Theoretical Foundation

Theoretically, the link between corruption and biodiversity conservation can be effectively examined through the lens of democratic governance. This theory explores how democratic principles, institutions, and processes influence decision-making, resource allocation, and the public administration. It integrates insights from democratic theory, governance studies, and public administration to understand how governance systems can become more transparent, participatory, accountable, and responsive to citizens (Liu, 2018; Haufler, & Sundström, 2020)

The key elements of the theory of democratic governance include participation (citizen involvement in decision-making), accountability (public officials being answerable for their actions), transparency (openness in decision-making and access to information), the rule of law (equal application of laws to all individuals and institutions), responsiveness (timely and appropriate reactions to public needs), and inclusiveness (ensuring that marginalized or vulnerable groups are included in governance processes) (World Bank, 1994; Kaufmann et al., 2009; World Bank, 2012; Kaufmann & Kraay, 2023; World Bank, 2024).

When applied to biodiversity conservation, democratic governance emphasizes embedding democratic values into environmental governance to ensure legitimacy, inclusivity, and effectiveness. It goes beyond administrative efficiency to promote citizen empowerment, equity, active political engagement, and the reduction of corrupt practices (Tungodden, 2001).

2.3. Empirical Research

Governance and institutional frameworks are key to understanding the success or failure of biodiversity conservation programmes (Wells, 1998). The author noted that programme effectiveness depends on incentives involving various organizations ranging from local communities and government agencies to NGOs, businesses, and international bodies. However, conservation efforts are often undermined by institutions that lack biodiversity awareness or commitment to its protection. To improve outcomes, Wells proposed several strategies: (i) decentralizing decision-making to local levels, (ii) aligning government institutions with conservation objectives, (iii) establishing new national and international agencies, and (iv) strengthening collaboration among institutional stakeholders. Active participation by local, national, and global institutions is crucial for designing and enforcing effective biodiversity incentives.

Azwardi et al. (2025) examined the role of green growth in driving economic development, particularly when supported by strong governance and anti-corruption policies. A key finding was that, contrary to expectations, corruption control showed a negative association with green growth (particularly in high-income Asian countries) indicating that current anti-corruption initiatives were largely ineffective between 2019 and 2023. The research shows that corruption hinders green growth by weakening environmental regulations, obstructing the enforcement of policies, and leading to inefficient resource utilization, especially in energy and industrial sectors. Moreover, corrupt practices worsen environmental damage and suppress green innovation by distorting policy incentives and undermining institutional performance. Overall, the study concludes that advancing green growth requires robust governance and strategic investment in environmental protection, while

unchecked corruption and development models reliant on intensive resource use remain major obstacles.

Asif et al. (2024) examines how political instability and corruption affect environmental degradation in selected South Asian countries from 1996 to 2019, using the panel Autoregressive Distributed Lag (ARDL) method to analyze short- and long-term impacts. Findings reveal that both factors significantly increase carbon emissions and ecological footprints in the long run, highlighting how weak governance and political turmoil impede sustainable environmental management. In the short term, political instability worsens environmental outcomes, while corruption shows an unexpected negative link to carbon emissions (possibly due to slowed economic activity or delayed industrial projects during turbulent periods). Overall, the study underscores that poor governance and persistent instability are key drivers of environmental decline in the region.

Itchoko and Tsopmo (2024) investigate how corruption affects the relationship between natural resources and economic growth in Sub-Saharan Africa from 1985 to 2022, using a Panel Smooth Transition Regression (PSTR) model. Key findings show that corruption significantly distorts natural resource management and undermines economic growth, with political corruption having the most detrimental effect compared to other forms. The impact of natural resources on growth varies with corruption levels. In low-corruption environments, mineral, oil, and forest resources have no significant effect on growth. However, in high-corruption settings, oil and forest resources hinder growth, while mineral resources surprisingly contribute positively, likely due to rent-seeking dynamics or selective exploitation.

Iheanachor et al. (2023) examined the interplay between corruption, environmental sustainability, and economic performance in Nigeria from 1981 to 2020, testing the validity of the Environmental Kuznets Curve (EKC) hypothesis using an ARDL model. The study found that corruption significantly undermines both environmental quality and economic performance. It directly and indirectly exacerbates environmental degradation by increasing CO_2 emissions and eroding ecological resilience, supporting the EKC framework. In the long run, rising corruption and higher carbon emissions are linked to deteriorating economic outcomes.

The reviewed literature offers a strong basis for understanding the links between corruption, governance, natural resources, environmental sustainability, and economic performance in developing regions like Sub-Saharan Africa and South Asia. However, key gaps persist. There is little or no examination of how indigenous knowledge, local enforcement and community-based governance can

reduce corruption in biodiversity conservation. Illicit financial flows from resource exploitation that drains revenues and weakening conservation financing are ignored. The role of digital and technological tools in improving transparency is underexplored. Moreover, ties to international environmental agreements and compliance are weak, and gender and social equity aspects are missing.

3. Methodology

This study primarily utilized secondary data and information obtained from publications and databases of international organizations, government agencies, and academic institutions. It also draws on peer-reviewed journal articles, books and legal reports related to corruption and biodiversity.

The gathered information was analyzed using content and descriptive analysis techniques. Content analysis was employed to systematically evaluate and interpret the publications, allowing for the extraction of meaningful insights. From the collected data on corruption, governance, and biodiversity, patterns were descriptively identified on a yearly basis, enabling the interpretation and discussion of trends and relationships relevant to the study.

4. Analysis and Discussion

As previously discussed, the analysis of the relationship between corruption and biodiversity conservation in Nigeria was based on secondary data. Content analysis was employed to assess and interpret the collected information, while descriptive analysis was used to explain the extent of corruption, the status of the biodiversity conservation, and the environmental performance of Nigeria in comparison with the selected African countries.

4.1. The Nexus Between Corruption and Biodiversity Conservation in Nigeria

Biodiversity conservation provides an atmosphere for other species to thrive. Promoting the well-being of existing species by mitigating the impact of human activities, such as environmental overexploitation, destruction, degradation, deforestation, wildlife poaching, and pollution (air and water), and minimizing the effects of natural disasters on biodiversity (Kearns, 2010).

Nigeria is one of the foremost biodiversity hotspots globally, as indicated in Table 01. Unfortunately, the abundance of biodiversity in the country has been threatened significantly over the past few decades. Factors contributing to these threats include a rapidly expanding population, which increased from 161 million in 2010 to 208.3 million in 2020 (UNODC, 2022d). Other challenges include insecurity, leading to the occupation of three out of Nigeria's seven crucial national parks (Kainji Lake National Park, Kamuku National Park, and Chad Basin National Park) by bandits and insurgents, rendering these parks inaccessible (UNODC, 2022d). The situation

is exacerbated by porous borders, limited political will and commitment, difficulties in law enforcement, regional instability, ongoing economic development, poverty, weak governance and institutions, fragile rule of law, deficient criminal justice systems, and corruption (UNODC, 2022d).

Some of the efforts put in place to improve and maintain the nation's level of biodiversity include the signing and ratification by the Nigerian governments of the Environment Related International Conventions and Protocols, such as the African Convention on the Conservation of Nature and Natural Resources, Algiers in 1968, the Convention on International Trade in Endangered Species of Fauna and Flora (CITES) in 1973, the enactment of Environment Related National Legislations, such as the Federal Environmental Protection Agency Decree No. 59 of 1992, the National Parks Decree No. 1979, 1991, and 1999) and the establishment of institutions responsible for biodiversity conservation and research, such as the Federal Ministry of Environment, the State Ministries of Environment/Forestry Department, the Local Governments' Department of Agriculture and Natural Resources, the International Institute of Tropical Agriculture (IITA) Ibadan, and the National Institute for Freshwater Fisheries Research (NIFFR) (Federal Government of Nigeria [FGN], 2001).

The outcomes of these efforts are presented in Table 1. For instance, Nigeria was ranked 11th in Africa in biodiversity conservation and about 35th out of 210 countries in the world, with a biodiversity index of 135.87 (The Swiftest, 2022). These positions were based on the number of birds (864), amphibians (119), fish (776), mammals (294), reptiles (207), and plants (3378) species in the country in 2022 (The Swiftest, 2022). The only exception is its overall environmental performance, which is poor, as indicated by the global environmental performance index of 28.3, which ranked Nigeria 162nd out of 180 countries in the world and 41st out of 46 in Africa in 2022 (Yale Centre for Environmental Law & Policy, Yale University & Centre for International Earth Science Information Network, Columbia University [YCELP/CIESIN], 2022).

Table 01: Global Biodiversity and Environmental Index in Selected African Countries 2022

Country	No. of Bird Species	No. of Amphibian Species	No. of Fish Species	No. of Mammal Species	No. of Reptile Species	No. of Vascular Plants Species	Global Biodiversity Index	Environmental Performance Index*
Congo DR	1110	227	1528	465	313	8860	214.4	36.9
Tanzania	1074	207	1773	412	346	10100	213.1	34.2
South Africa	762	132	2094	331	421	21250	207.9	37.2
Cameroon	888	226	1064	351	288	6883	172.4	30.2
Kenya	1057	115	1060	424	272	6506	179.7	30.8
Madagascar	248	377	1197	257	444	12000	162.2	28.0
Angola	920	106	988	331	310	6735	160.6	30.5
Guinea	635	80	807	241	648	4000	153.4	31.6
Mozambique	675	90	1780	265	225	5692	144.3	31.7
Uganda	998	62	271	362	174	4932	136.6	35.8
Nigeria	864	119	775	294	207	3378	135.8	28.3
Ethiopia	821	78	173	311	244	6603	128.2	36.8
Sudan	917	13	485	255	279	3137	124.2	27.6

Sources: The Swiftest (2022) and YCELP/CIESIN, (2022)

However, public sector corruption in Nigeria is high, and efforts to control it have been a mirage (Transparency International, 2022). The country's anti-corruption agencies, such as the Economic and Financial Crime Commission (EFCC) and the Independent Corrupt Practices Commission (ICPC), have failed to make any progress in the fight against corruption since their inception (Adebayo, 2020; Adeoye & Adeyemi, 2021). The pieces of evidence contained in Transparency International's Corruption Perception Index (CPI) in 2022 ranked Nigeria as 150th out of 180 countries in the world with a CPI score of 24 per cent, which is far below the 100 percent mark for lessor no corrupt nations (Transparency International, 2022) (see Table 02).

When the rate of corruption in Nigeria is linked to the level of biodiversity, the ripple effect provides a hotbed for activities occasioning degradation, destruction, over-exploration of natural resources, and the extinction of wildlife, which in turn has led to biodiversity loss, ecosystem deterioration, unemployment, income loss, poverty, and crime (United Nations Environment Programme [UNEP], 2011, 2019).

Table 02: Nigeria's ranking and score in the Corruption Perceptions Index (2016-2022)

Year	Global Ranking	Score
2016	136	28
2017	148	27
2018	144	27
2019	146	26
2020	149	25
2021	154	24
2022	150	24

Source: Transparency International (TI) (2022)

Note. This is adapted from the Transparency International Corruption Perceptions Index yearly reports. The index ranks about 180 countries from the least corrupt to the most corrupt.

Numerous instances illustrate how corruption severely undermines biodiversity conservation in Nigeria, where environmental laws and policies are often rendered ineffective due to poor enforcement (World Bank, 2012). A key example is the international ban on African elephant ivory trade under the Convention on International Trade in Endangered Species (CITES). Despite this prohibition, Nigeria remains a major source, transit, and destination country for illegal wildlife trade (IWT). Between 2015 and 2017, ivory seizures linked to Nigeria totaled approximately 12,211 kg (UNODC, 2022b, 2022d). In January 2021, a major seizure at Lagos's Apapa Port uncovered 2,772 elephant tusks (4,752 kg), 162 sacks of pangolin scales (5,329 kg), 5 kg of rhino horns, dried and fresh animal bones, 103 kg of suspected big cat skulls, and 76 pieces of semi-processed and processed timber (Trade Records Analysis of Flora and Fauna in Commerce [TRAFFIC], 2021; UNODC, 2022b, 2022c). The government also struggles to curb illegal charcoal and timber trade, as well as illegal, unreported, and unregulated (IUU) fishing in rivers and coastal waters (UNODC, 2022b, 2022d).

These illicit activities thrive due to weak institutional capacities, a dysfunctional criminal justice system, lack of rule of law, inadequate enforcement, widespread impunity, and poor attitudes among agencies responsible for conservation (even in the presence of relevant laws) (Adeola, 2005; ERA/FoE Nigeria & Natural Justice, 2011; World Justice Project [WJP], 2023). For example, the National Environmental Standards and Regulations Enforcement Agency (NESREA) enforce the National Environmental (Control of Charcoal Production and Export) Regulations (NESREA, 2014; IUCN, 2018), which require a valid permit and a reforestation plan for charcoal production. However, compliance is minimal. This is evident in

the discrepancy between official and actual charcoal exports: while Nigeria officially recorded $4.5 million in charcoal exports in 2018, external data suggest the actual value exceeded $91 million, indicating widespread illegal trade and regulatory failure (UNODC, 2022b, 2022d).

The implications are clear. Illegal trade and weak enforcement severely hinder biodiversity conservation. Despite international and national commitments, corruption, institutional failures, and poor coordination allow illegal activities to flourish. Deforestation from illegal logging and charcoal production destroys habitats and reduces carbon sequestration, while IUU fishing depletes fish stocks and damages marine ecosystems such as mangroves and coral reefs. These threats are fueled by corruption, lack of inter-agency cooperation, and weak prosecution, enabling traffickers to operate with impunity which necessitate urgent reforms to prevent further biodiversity loss and ecosystem collapse.

Corruption in Nigeria's extractive sectors (oil, gas, gold, tin, and emerging lithium mining) has become a major driver of biodiversity loss, especially in ecologically sensitive areas like the Niger Delta, Zamfara, and Plateau State. Systemic governance failures, weak regulation, and lack of accountability have enabled unchecked resource exploitation, leading to severe and often irreversible environmental damage (Ibeanu, 2003; Global Witness, 2006; Aliyu, 2024; Associated Press, 2024; Agency Report, 2025; Auta, 2025).

The Niger Delta, one of Africa's most biodiverse regions with extensive mangrove forests and aquatic ecosystems, has been devastated by decades of corrupt oil extraction (Padmore, 2018; Shirbon, 2023). As Global Witness (2006) reported, collusion between government officials, oil companies, and security forces has facilitated the illegal awarding of licenses and fraudulent contracts, weakening environmental oversight. Crude oil theft ("bunkering"), with an estimated 600,000 barrels stolen daily, leads to frequent, unreported spills that pollute rivers, destroy farmland, and harm aquatic and terrestrial species. Mangroves, vital for fish breeding and coastal protection, have suffered massive die-offs due to hydrocarbon contamination (Gillies, 2009).

Moreover, the absence of enforcement allows oil companies to operate with impunity, often bypassing environmental impact assessments (EIAs) and failing to rehabilitate degraded sites. The cumulative effect is a fragmented and degraded landscape that undermines ecosystem resilience and threatens endemic species (Padmore, 2018; Shirbon, 2023).

In Zamfara State, illegal artisanal gold mining continues despite a 2019 federal ban, sustained by bribery of police, military, and local officials. Investigations reveal that

some security personnel receive monthly payments from mining syndicates, highlighting deep institutional corruption (Premium Times, 2021; Aliyu, 2024; Sulaimon, 2025). The environmental impact is severe. Lead and mercury from ore processing have contaminated soil and water, causing widespread lead poisoning, especially in children. These pollutants disrupt ecosystems, enter food chains, and harm birds, mammals, and aquatic life. Unregulated excavation and deforestation also lead to habitat fragmentation, endangering biodiversity in the savanna ecosystem.

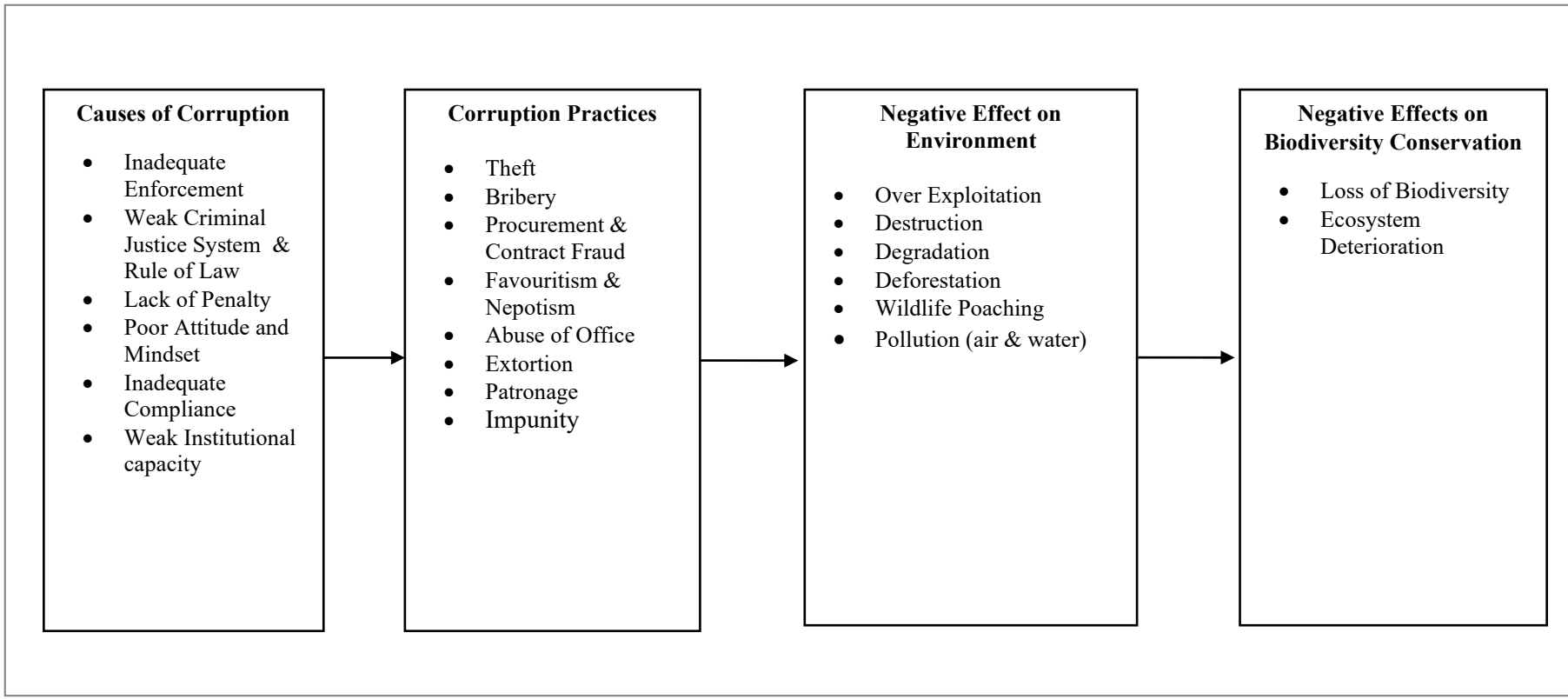
As global demand for lithium rises, Nigeria is exploring deposits in Nasarawa, Kogi, Kwara, and Oyo. However, National Extractive Industries Transparency Initiative (NEITI) (2023) has raised concerns over non-transparent licensing, including the award of exploration rights to inexperienced firms without competitive bidding. Allegations of bribery in the Ministry of Mines and Steel Development (such as fast-tracking permits and suppressing EIAs) are alarming (Akinwunmi, 2024; Akogun, 2024; Associated Press, 2024). This rush risks a "green resource curse," where the pursuit of clean energy materials causes deforestation, soil erosion, and water contamination, threatening fragile ecosystems and biodiversity before formal mining even begins.

On the Jos Plateau (historically rich in tin and columbite) illegal mining has resurged due to weak enforcement and systemic corruption. Regulatory agencies like the Department of Petroleum Resources (DPR) and Ministry of Mines have failed to act despite repeated warnings (Ibeanu, 2003; Suleiman, 2024). Local officials and traditional leaders receive kickbacks, and security forces have been filmed escorting illegal miners, exposing a deep patronage network (Agency Report, 2025; Auta, 2025; EFCC, 2025).

Environmentally, abandoned open pits and excavations have led to landslides during the rainy season, destroying habitats and endangering communities. Contamination of farmlands and water bodies with heavy metals such as arsenic and lead further degrades ecosystems. The montane ecosystem of the Jos Plateau hosts several endemic species, and ongoing habitat fragmentation due to unregulated mining poses a serious threat to their survival (Auta, 2025).

Collectively, these cases demonstrate that corruption in Nigeria's extractive sectors is not only a governance failure but an ecological emergency. It enables environmental crimes, weakens regulatory institutions, and prioritizes private profit over public and ecological well-being. The result is accelerated ecosystem degradation and biodiversity loss across multiple biomes, as illustrated in Figure 01.

Figure 01: A Framework Showing the Link between Corruption and Biodiversity Conservation



Source: Based on Literature (2024)

The framework presented in Figure 01 depicts the interrelationship between corruption and biodiversity conservation. It is grounded in the literature review, encompassing relevant theoretical perspectives and empirical evidence, as well as identified gaps in existing research. The framework identifies key forms of corrupt practices such as theft, bribery, procurement or contract fraud, abuse of office, extortion, political patronage, favoritism, and impunity perpetrated by actors in both the public and private sectors.

These corruption behaviours are caused by a range of weaknesses, including inadequate enforcement of environmental laws, a fragile criminal justice system, lack of legal penalties, poor public attitudes and awareness, low compliance, and weak institutional capacity. Collectively, these factors undermine the effectiveness of biodiversity conservation policies and regulations.

As a result, the environment faces severe threats such as overexploitation of natural resources, habitat destruction, deforestation, wildlife poaching, and air and water pollution. These environmental degradations ultimately lead to biodiversity loss and the decline of ecosystems.

Importantly, the framework also reveals a reinforcing feedback loop between corruption and environmental degradation. Corruption facilitates biodiversity loss and ecosystem decline, while the resulting weakened governance and resource scarcity further create opportunities for corruption to thrive. This self-sustaining cycle continues to worsen the situation unless effective interventions (such as the integration of indigenous knowledge, community-based governance, and local enforcement mechanisms) are implemented to break the cycle and promote sustainable conservation.

5. Conclusion

This study investigated the relationship between corruption and biodiversity conservation, based on a carefully designed conceptual framework. It further explored the impact of corruption on biodiversity conservation in Nigeria, focusing on various forms of corrupt practices, such as theft, bribery, procurement and contract fraud, favouritism, nepotism, abuse of office, extortion, political patronage, and widespread impunity. These corrupt behaviours have been perpetuated by several systemic issues, including weak enforcement of biodiversity laws, an ineffective criminal justice system, poor rule of law, insufficient penalties or sanctions, institutional weaknesses, a negative mind set and lack of commitment among enforcement personnel, and deliberate non-compliance by the public.

Collectively, these factors have led to the overexploitation of natural resources, habitat destruction, deforestation, wildlife poaching, and environmental pollution

(both in the air and water). The broader consequences of these environmental challenges include significant biodiversity loss, ecosystem degradation, rising unemployment, increasing income inequality, deepening poverty, and a rise in criminal activities.

Addressing the issue of corruption that has contributed to biodiversity loss in Nigeria requires a comprehensive reform of the country's governance, legal, and institutional frameworks. This includes strengthening anti-corruption measures, promoting accountability, transparency, and responsiveness among agencies and personnel responsible for biodiversity conservation.

Adherence to national legal frameworks and international conventions on sustainable biodiversity management is essential. Furthermore, it is critical to eliminate discretionary practices, favouritism, and unjust exemptions in the granting of licenses for mining, logging, and other forms of natural resource extraction.

Reforming the weak judicial system and strengthening institutions mandated to address biodiversity loss are equally important. Equally vital is the need for attitude change, ethical behaviour, honesty, and integrity in upholding environmental laws and protecting ecosystems.

There is also a need to increase public awareness, especially in rural communities, about how corruption undermines biodiversity conservation. Empowering local populations, strengthening community-based enforcement, integrating indigenous knowledge into conservation practices, utilizing digital and technological tools for monitoring biodiversity, promoting gender and social equity, providing essential social services, and developing sustainable alternative livelihoods are all critical steps. These measures can help reduce overreliance on natural resources by offering viable and sustainable alternatives.

6. Limitations and Further Research

This study was based entirely on secondary data, which limited the ability to verify the accuracy and completeness of the information. Furthermore, the focus on Nigeria may limit the extent to which the findings can be applied to other developing countries with differing socio-political contexts.

Future research should adopt a multidisciplinary or interdisciplinary approach, integrating governance, legal, environmental, social, economic, and technological perspectives, with a particular focus on biodiversity conservation. Greater emphasis should be placed on generating policy-relevant insights that can guide effective legislation, enforcement mechanisms, and sustainable development strategies in Nigeria and other countries facing similar environmental challenges. This holistic

approach will support the protection of biodiversity while promoting environmentally sound and socially inclusive solutions.

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