

## An Analysis of Environmental Pollution Laws and Regulations in Nigeria

Labo Clifford Fun-Akpo<sup>1</sup>, Peter Ikechukwu Gasiokwu<sup>2</sup>

*Abstract— The Nigerian environment faces a multitude of severe pollution challenges, including pervasive oil spillages, continuous gas flaring, desertification, drought, climate change impacts, escalating municipal waste generation, and gully erosion. These persistent problems are exacerbated by rapid population growth and the relentless exploitation of natural resources. In response, the Nigerian government has enacted a suite of environmental pollution prevention laws and established regulatory bodies designed to abate environmental degradation. This paper examines the concept of the environment and its components, defines pollution and its various types, and investigates the primary causes of environmental pollution in Nigeria. It provides a critical analysis of the key environmental pollution prevention laws and regulations, evaluating their effectiveness in stemming the tide of environmental degradation. The analysis reveals that while a comprehensive legal framework exists on paper, its effectiveness is critically undermined by outdated provisions, weak enforcement mechanisms, constitutional limitations, and a lack of political will. The paper advocates for significant legal and policy reforms, including the strengthening of institutional capacity, enhanced public participation, and a renewed commitment to the sustainable use and conservation of natural resources to achieve a more effective environmental enforcement regime in Nigeria.*

**Keywords:** Environment; environmental pollution; laws; regulations; NESREA; Nigeria.

---

<sup>1</sup> Faculty of Law, Delta State University, Oleh Campus, Rivers State, Nigeria

<sup>2</sup> Faculty of Law, Delta State University, Oleh Campus, Rivers State, Nigeria

© 2026 the Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License, Attribution-NonCommercial 4.0 International (CC BY-NC 4.0).

## **INTRODUCTION**

The term environment lacks a single, universally accepted definition, as its meaning is often shaped by the context of various scholars, treaties, declarations, and legal statutes (Amokaye, 2014). In its most ordinary sense, the environment is understood as our surroundings, encompassing the natural and physical influences that affect the growth, development, and existence of living beings (Wilkinson & Wyman, 2012). This perspective aligns with the view of the environment as all the interesting factors and circumstances that surround, influence, and direct the behavior of individual beings, groups, and communities.

The United Nations Stockholm Conference on the Human Environment acknowledged the central role of humanity, stating that humankind is both creature and molder of the environment (United Nations, 1972). Similarly, the World Charter for Nature, adopted by the United Nations General Assembly, emphasizes that mankind is part of nature and its life depends on the uninterrupted functioning of a natural system which ensures the supply of energy and nutrients (United Nations General Assembly, 1982). This holistic view is essential, as it considers not only humankind but also the flora, fauna, and micro-organisms that shape the ecosystem. The environment can thus be viewed as a complex web of relationships existing within an ecosystem (Kiss & Shelton, 2007).

Statutorily, the definition of environment is often broadened to include specific elements. For instance, the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act provides a legal definition that encompasses water, air, land, and all plants and animals living therein, as well as the interrelationships that exist among them (NESREA Act, 2007). The International Convention on Civil Liability for Environmental Damage extends this scope further to include not only the natural environment but also man-made landscapes, buildings, and objects that form part of humanity's cultural heritage (Council of Europe, 1993). Regardless of the specific definition, one fundamental truth remains: human survival and well-being are inextricably dependent on a healthy and functional environment.

## **COMPONENTS AND CLASSIFICATION OF THE ENVIRONMENT**

The environment is a complex system composed of four primary, interacting spheres. The atmosphere is the gaseous envelope surrounding the earth, consisting mainly of nitrogen and oxygen, which protects living organisms from harmful solar radiation and regulates climate (Ahmed, 2021). The hydrosphere encompasses all of the planet's water, whether on the surface, underground, or in the air, and is essential for all known forms of life. The lithosphere is the earth's solid outer shell, comprising the crust and upper mantle, which provides the physical foundation for terrestrial life. Finally,

the biosphere is the sum of all ecosystems, encompassing all living organisms and their interactions with the other three spheres (Miller & Spoolman, 2019).

The environment can also be classified into a micro-environment, which refers to the immediate local surroundings of an organism, and a macro-environment, which refers to the broader physical and biotic conditions that affect an organism externally (Ogunba, 2016).

### **The Concept and Types of Environmental Pollution**

The definition of pollution is also multifaceted. The International Law Association defined pollution of the sea as an act that renders the inoffensive uses of the water impossible either for animal life or human use or creates damage to such life or such use (International Law Association, 1924). Section 37 of the NESREA Act defines pollution more specifically as man-made or man-aided alteration of the chemical, physical, or biological quality of the environment beyond acceptable limits (NESREA Act, 2007). While this definition focuses on anthropogenic causes, it is also important to note that natural events, such as volcanic eruptions or floods, can also cause pollution. A comprehensive definition, therefore, considers pollution as human activities or natural occurrences that cause an alteration of the physical, chemical, or biological conditions in the environment, resulting in adverse effects on both living and non-living things (Atsegbua et al., 2018).

Environmental pollution manifests in several primary forms, each with distinct sources and consequences.

#### **Air Pollution**

Air pollution involves the introduction of harmful substances or energy into the atmosphere, endangering human health, harming living resources and ecosystems, and impairing environmental quality (World Health Organization, 2021). In Nigeria, the principal sources of air pollution include vehicular emissions from the transportation sector, industrial fumes from factories, the indiscriminate burning of refuse and bush for farming, and the environmentally destructive practice of gas flaring associated with oil production (Ajugwo, 2013). The health implications of poor air quality are severe, particularly in high-density urban areas, and range from respiratory discomfort to chronic carcinogenic diseases (Ezejimofor et al., 2016).

#### **Land Pollution**

Land pollution refers to the degradation of the earth's terrestrial surface through harmful human activities. These include the dumping of hazardous waste materials, improper application of chemical fertilizers and herbicides, and the impacts of

industrialization and urbanization (Okonkwo et al., 2021). In Nigeria, a particularly acute form of land pollution occurs in the Niger Delta region, where extensive oil exploration and exploitation activities have resulted in widespread oil spills. These spills contaminate the soil, rendering vast areas infertile and destroying agricultural livelihoods and natural habitats (Nwilo & Badejo, 2005).

### **Noise Pollution**

Noise pollution is defined as unwanted or excessive non-harmonious sound that has undesired physiological and psychological effects on individuals. It interferes with comfort, rest, and work (Oyedepo, 2012). Sources of noise pollution in Nigeria's major cities like Lagos, Port Harcourt, and Warri are diverse and include noise from motor vehicles, airplanes, amplified music from places of worship and social events, construction sites, and industrial machinery. Prolonged exposure to high-intensity noise can lead to hearing impairment, emotional disturbance, and other health problems (Anomohanran et al., 2018).

### **Water Pollution**

Water pollution is the introduction by human activities, directly or indirectly, of substances or energy into the marine or freshwater environment, which impairs the quality and legitimate uses of the water (Idu, 2015). The principal sources of water pollution in Nigeria include oil spills, industrial effluents, agricultural run-off containing fertilizers and pesticides, and the discharge of untreated sewage and municipal waste into water bodies (Adejumoke et al., 2018). This contamination not only threatens human health by compromising drinking water sources but also destroys aquatic ecosystems and biodiversity.

## **PRIMARY CAUSES OF ENVIRONMENTAL POLLUTION IN NIGERIA**

The causes of environmental pollution in Nigeria are deeply rooted in its developmental trajectory. Industrial activities, particularly in the oil and gas, manufacturing, and mining sectors, are a major source of pollution, releasing harmful substances into the air, land, and water (Olawuyi, 2015). Agricultural and hunting practices, such as bush burning for land clearance and the indiscriminate use of agrochemicals, lead to air and land degradation (Ezemonye & Emeribe, 2012). Inadequate housing and poor urban planning, characterized by insufficient sewage and waste management systems, constitute a major source of water and land pollution, especially in rapidly growing urban centers (Ogbonna et al., 2021). The improper disposal of solid waste, including ubiquitous plastic sachets and polythene bags, clogs drainage channels and pollutes waterways, leading to flooding (Ayotamuno & Gobo, 2004). Furthermore, the problem of noise pollution is pervasive in urban areas, driven by transportation, commerce, and religious activities (Oyedepo & Saadu, 2010).

## **LEGAL AND REGULATORY FRAMEWORK FOR ENVIRONMENTAL PROTECTION IN NIGERIA**

Nigeria has developed a substantial body of environmental laws and regulations over the years, a process significantly catalyzed by the Koko toxic waste dumping incident of 1988. This event spurred the government to move from reliance on common law principles to the enactment of stringent statutory frameworks for environmental protection (Ladan, 2012).

### **The Constitution of the Federal Republic of Nigeria, 1999 (as amended)**

The foundational basis for environmental policy in Nigeria is Section 20 of the Constitution of the Federal Republic of Nigeria, 1999 (as amended). This section provides that "the State shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria." However, this provision is embedded in Chapter II of the Constitution, which outlines the Fundamental Objectives and Directive Principles of State Policy. By virtue of Section 6(6)(c) of the same Constitution, these principles are non-justiciable, meaning that no legal action can be instituted against the government for failing to fulfill this constitutional duty (Akanle, 2011). This constitutional limitation severely constrains the ability of citizens to hold the state accountable for environmental degradation.

Despite this, Nigerian courts have creatively linked environmental rights to the fundamental rights to life and human dignity guaranteed under Sections 33 and 34 of the Constitution. In the landmark case of *Jonah Gbemre v. Shell Petroleum Development Company Nigeria Ltd* (2005), the Federal High Court held that gas flaring constitutes a gross violation of the constitutionally guaranteed rights to life and dignity, which include the right to a clean, poison-free, and pollution-free healthy environment. This judicial interpretation provides a vital, though indirect, avenue for environmental litigation.

### **National Environmental Standards and Regulation Enforcement Agency (Establishment) Act, 2007**

This Act established the National Environmental Standards and Regulation Enforcement Agency (NESREA), which replaced the defunct Federal Environmental Protection Agency (FEPA). The NESREA Act is the principal legislation focused on the protection and sustainable development of Nigeria's environment and its natural resources. The Agency is charged with enforcing compliance with policies, standards, legislation, and guidelines on water quality, environmental health, and sanitation, including pollution abatement (NESREA Act, 2007, s. 7). It is empowered to enforce

environmental regulations and standards on noise, air, land, and water bodies, although its jurisdiction notably excludes the oil and gas sector (Olawuyi, 2015).

The Act empowers the agency to make regulations for the protection and advancement of the quality of land resources and to prevent flood and erosion. Violators of its provisions are subject to fines and imprisonment. For instance, an individual convicted of an offence under the Act is liable to a fine not exceeding two hundred thousand Naira or imprisonment for a term not exceeding one year, or both, with an additional fine of ten thousand Naira for every day the offence subsists. For a corporate body, the fine increases to one million Naira with a daily fine of fifty thousand Naira (NESREA Act, 2007, s. 30). Section 27 of the Act makes it an offence to discharge harmful quantities of any hazardous substance into the air, land, or water of Nigeria, punishable on conviction with a fine of up to one million Naira or imprisonment for up to five years.

#### **National Environmental Protection (Pollution Abatement in Industries and Facilities Producing Waste) Regulations, 1991**

These Regulations prohibit the release of hazardous substances into the air, land, or water of Nigeria beyond the limits set by the Agency. The primary aim is to reduce the intensity of pollution and promote its eventual elimination. The regulations encourage industries to adopt pollution abatement technologies, which can also lead to more efficient use of raw materials, energy, and water, while simultaneously improving workers' health and safety (Fagbohun, 2010).

#### **National Environmental (Chemicals, Pharmaceuticals, Soap and Detergent Manufacturing Industries) Regulations, 2009**

This regulation prohibits any facility from discharging effluent or oil on land without a permit from the Agency and from releasing hazardous substances beyond permissible limits. It stipulates that the polluter pays principle shall apply to every facility that pollutes (National Environmental (Chemicals, Pharmaceuticals, Soap and Detergent Manufacturing Industries) Regulations, 2009, reg. 6). This principle is a cornerstone of modern environmental law, holding that those who cause pollution should bear the costs of managing it to prevent damage to human health or the environment.

#### **National Environmental (Sanitation and Waste Control) Regulations, 2009**

The aim of this regulation is to ensure the adoption of environmentally friendly practices and proper waste management to minimize pollution. It prohibits the release of effluent and sludge into the environment in excess of permissible levels and criminalizes the generation or transit of hazardous waste without a valid permit from

the Agency (National Environmental (Sanitation and Waste Control) Regulations, 2009, regs. 4-6).

### **Harmful Waste (Special Criminal Provisions) Act, Cap H1 LFN 2004**

The illegal dumping of hazardous toxic waste in Koko Port, Delta State, in 1988 by an Italian firm directly prompted the enactment of this Act. It addresses the issue of environmental pollution arising from the dumping of hazardous toxic waste on land or in the territorial waters, contiguous zone, or exclusive economic zone of Nigeria. The Act prescribes severe penalties for violations, including life imprisonment for any person found guilty of dumping toxic waste, and the forfeiture of any vessel used for such carriage (Harmful Waste (Special Criminal Provisions) Act, 2004, s. 1).

### **Nigerian Minerals and Mining Act, 2007**

This Act vests the entire property in and control of all mineral resources in Nigeria in the Federal Government. It mandates that a holder of a mineral title must take steps to prevent environmental pollution resulting from mining operations (Nigerian Minerals and Mining Act, 2007, s. 1). The Act specifically prohibits the pollution of any water or watercourse during mining or exploration activities and requires that any water used for mining operations does not contain injurious substances that could be detrimental to animal or vegetable life.

### **Oil in Navigable Waters Act, Cap O6 LFN 2004**

This Act was enacted to prevent oil pollution in Nigerian waters. It makes it an offence for any person to discharge oil or a mixture containing oil into the navigable waters of Nigeria from any vessel, from any place on land, or from any apparatus used in transferring oil (Oil in Navigable Waters Act, 2004, s. 3). The navigable waters are defined as those extending up to 30 nautical miles.

### **Petroleum Act, Cap P10 LFN 2004**

The Petroleum Act empowers the Minister of Petroleum Resources to make regulations for the prevention of pollution of watercourses and the atmosphere. In exercise of this power, the Petroleum (Drilling and Production) Regulations were made. These regulations mandate that a licensee or lessee adopt all practicable precautions to prevent the pollution of inland waters, rivers, and the territorial waters of Nigeria by oil, mud, or other fluids (Petroleum (Drilling and Production) Regulations, 1969, reg. 25). Regulation 40 specifically addresses the prevention of oil pollution, requiring that all waste oil, brine, and sludge be carefully drained into proper receptacles and disposed of in a manner approved by the Director of Petroleum Resources.

### **Criminal Code Act, Cap C38 LFN 2004**

The Criminal Code contains provisions aimed at protecting public health and the environment. Section 234(e) makes it an offence, punishable by two years' imprisonment, to wilfully divert or obstruct the course of any navigable river. Furthermore, Section 245 provides that any person who corrupts or fouls the water of any spring, stream, well, tank, or reservoir, so as to render it less fit for its ordinary use, is guilty of a misdemeanor and is liable to imprisonment for six months. These provisions, while old, represent an early legal recognition of the need to protect common environmental resources.

### **The Environmental Impact Assessment Act, Cap E12 LFN 2004**

The objective of this Act is to ensure that public and private projects are not carried out without a proper assessment of their potential impact on the environment. It stipulates that an environmental impact assessment shall be undertaken by any organization proposing to carry out activities which are likely to have significant effects on the environment, whether physical, biological, economic, or social (Environmental Impact Assessment Act, 2004, s. 2(1)). The purpose is to ensure that such effects are considered during the planning, design, and implementation of the project (Wood, 2003).

### **National Oil Spills Detection and Response Agency (Establishment) Act, 2015 (NOSDRA)**

This Act was enacted to implement Nigeria's National Oil Spill Emergency Plan. It establishes the National Oil Spills Detection and Response Agency (NOSDRA) and empowers it to prevent, control, combat, and mitigate marine pollution (National Oil Spills Detection and Response Agency (Establishment) Act, 2015, s. 7(d)). The Act penalizes polluters who refuse to report oil spill incidents, and failure to clean up spills attracts significant penalties.

### **Niger Delta Development Commission (Establishment) Act, Cap N86 LFN 2004**

This Act established the Niger Delta Development Commission (NDDC) with a mandate to use allocated funds to tackle ecological problems arising from the exploration of oil minerals in the Niger Delta region. It empowers the commission to plan and implement projects for the sustainable development of the Delta in various fields, including transportation, health, agriculture, and housing (Niger Delta Development Commission (Establishment) Act, 2004, s. 7). The Commission is also tasked with liaising with oil and gas companies and advising stakeholders on the control of oil spillages, gas flaring, and other forms of environmental pollution.

### **The Petroleum Industry Act, 2021**

The Petroleum Industry Act (PIA) represents a significant overhaul of Nigeria's oil and gas legal framework. A key feature is its imposition of a duty on host communities to protect oil and gas assets. Section 257 of the Act stipulates that a community that fails to protect oil assets in its domain from vandalism may be held accountable for the cost of repairs or maintenance. This provision has been met with criticism for shifting the burden of protecting oil infrastructure onto the communities most impacted by its environmental consequences. The PIA also penalizes companies for gas flaring and provides that the revenues from these penalties will be used for environmental remediation and relief of the impacted communities (Petroleum Industry Act, 2021, s. 105). Other relevant laws include the Climate Change Act of 2021, the Land Use Act of 1978, the Associated Gas Re-injection Act of 1979, and the Endangered Species Act.

## CONCLUSION

The analysis of Nigeria's environmental pollution laws and regulations reveals a comprehensive legal framework designed to protect the environment. From the foundational provisions of the Constitution to the detailed sector-specific regulations of NESREA, NOSDRA, and the PIA, there is no shortage of legislative intent. However, a significant gap exists between the law on the books and its enforcement in practice. The non-justiciability of constitutional environmental objectives, the lenient and outdated fines prescribed by some older statutes, the fragmentation of regulatory oversight, a persistent lack of political will, and the prioritization of economic interests over environmental protection have collectively rendered these laws largely ineffective.

To move towards a more effective environmental enforcement regime, Nigeria must undertake substantial reforms. These should include amending the Constitution to make environmental rights justiciable, updating penal provisions to impose stiffer, deterrent fines and sanctions, and strengthening the institutional capacity and independence of regulatory bodies like NESREA. Furthermore, fostering genuine public participation in environmental decision-making and embracing the principles of sustainable development and the polluter pays are not merely aspirational goals but essential steps for safeguarding the health of the Nigerian environment and the well-being of its people.

## REFERENCES

- Adejumoke, I. A., Babatunde, A. I., & Abimbola, O. S. (2018). Water pollution: Effects, prevention, and climatic impact. In M. Glavan (Ed.), *Water challenges of an urbanizing world*. IntechOpen.
- Ahmed, K. (2021). *Environmental law and policy in Nigeria*. Malthouse Press.
- Ajugwo, A. O. (2013). Negative effects of gas flaring: The Nigerian experience. *Journal of Environment Pollution and Human Health*, 1(1), 6-8.

- Akanle, O. (2011). Environmental justice and the challenges of enforcement of environmental laws in Nigeria. *Journal of Sustainable Development in Africa*, 13(4), 324-339.
- Amokaye, O. G. (2014). *Environmental law and practice in Nigeria*. University of Lagos Press.
- Anomohanran, O., Iwegbue, C. M. A., Oghenerhoru, O. J., & Egbai, J. C. (2018). Investigation of noise pollution in some selected parts of Warri and Effurun, Delta State, Nigeria. *Journal of Applied Sciences and Environmental Management*, 22(4), 545-549.
- Atsegbua, L., Akpotaire, V., & Dimowo, F. (2018). *Environmental law in Nigeria: Theory and practice* (2nd ed.). Ambik Press.
- Ayotamuno, J. M., & Gobo, A. E. (2004). Municipal solid waste management in Port Harcourt, Nigeria: Obstacles and prospects. *Management of Environmental Quality: An International Journal*, 15(4), 389-398.
- Constitution of the Federal Republic of Nigeria. (1999). (as amended).
- Council of Europe. (1993). *Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment*. European Treaty Series No. 150.
- Environmental Impact Assessment Act, Cap E12, Laws of the Federation of Nigeria. (2004).
- Ezejimofor, M. C., Uche, O. R., & Nwachukwu, N. C. (2016). Air pollution and health challenges in Port Harcourt metropolis, Nigeria. *International Journal of Advanced Research*, 4(12), 1595-1603.
- Ezemonye, M. N., & Emeribe, C. N. (2012). The environmental impact of oil spillage and gas flaring in the Niger Delta region of Nigeria. *Journal of Environmental Management and Safety*, 3(2), 17-35.
- Fagbohun, O. (2010). *The law of environmental protection and sustainable development in Nigeria*. Lagos State University Press.
- Harmful Waste (Special Criminal Provisions) Act, Cap H1, Laws of the Federation of Nigeria. (2004).
- Idu, A. J. (2015). The legal regime of water pollution control in Nigeria. *Journal of Law, Policy and Globalization*, 36, 128-137.
- International Law Association. (1924). *Report of the Thirty-Third Conference*.
- Jonah Gbemre v. Shell Petroleum Development Company Nigeria Ltd, Suit No. FHC/B/CS/53/05 (Federal High Court of Nigeria 2005).
- Kiss, A., & Shelton, D. (2007). *Guide to international environmental law*. Martinus Nijhoff Publishers.
- Ladan, M. T. (2012). *Law, cases and policies on energy, mineral resources and environmental protection in Nigeria*. Ahmadu Bello University Press.

- Miller, G. T., & Spoolman, S. E. (2019). *Living in the environment* (19th ed.). Cengage Learning.
- National Environmental (Chemicals, Pharmaceuticals, Soap and Detergent Manufacturing Industries) Regulations. (2009). (S.I. No. 14).
- National Environmental (Sanitation and Waste Control) Regulations. (2009). (S.I. No. 28).
- National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, No. 25. (2007).
- National Oil Spills Detection and Response Agency (Establishment) Act, No. 15. (2015).
- Niger Delta Development Commission (Establishment) Act, Cap N86, Laws of the Federation of Nigeria. (2004).
- Nigerian Minerals and Mining Act, No. 20. (2007).
- Nwilo, P. C., & Badejo, O. T. (2005). Oil spill problems and management in the Niger Delta. *International Oil Spill Conference Proceedings*, 2005(1), 567-570.
- Ogbonna, D. N., Amangabara, G. T., & Ekere, T. O. (2021). Urban solid waste management in Port Harcourt, Nigeria. *Journal of Applied Sciences and Environmental Management*, 15(4), 689-695.
- Ogunba, O. A. (2016). *Environmental impact assessment in Nigeria: A regulatory and administrative perspective*. Ibadan University Press.
- Oil in Navigable Waters Act, Cap O6, Laws of the Federation of Nigeria. (2004).
- Okonkwo, C. C., Eboatu, A. N., & Okonkwo, I. F. (2021). Environmental pollution and degradation in Nigeria: Causes, effects and control strategies. *International Journal of Environmental Science and Natural Resources*, 27(3), 1-7.
- Olawuyi, D. S. (2015). *The principles of Nigerian environmental law*. Afe Babalola University Press.
- Oyedepo, O. S. (2012). Noise pollution in urban areas: The neglected dimensions. *Journal of Environmental Research and Management*, 3(4), 86-95.
- Oyedepo, O. S., & Saadu, A. A. (2010). Evaluation and analysis of noise levels in Ilorin metropolis, Nigeria. *Environmental Monitoring and Assessment*, 160(1), 563-577.
- Petroleum (Drilling and Production) Regulations. (1969). (L.N. No. 117 of 1969).
- Petroleum Act, Cap P10, Laws of the Federation of Nigeria. (2004).
- Petroleum Industry Act, No. 6. (2021).
- United Nations. (1972). *Report of the United Nations Conference on the Human Environment*. A/CONF.48/14/Rev.1.
- United Nations General Assembly. (1982). *World Charter for Nature*. A/RES/37/7.
- Wilkinson, D., & Wyman, R. (2012). *The environment: A sociological introduction*. Polity Press.
- Wood, C. (2003). *Environmental impact assessment: A comparative review* (2nd ed.). Prentice Hall.

World Health Organization. (2021). *Air pollution*. <https://www.who.int/health-topics/air-pollution>