

Framework for Environmental Protection in Nigeria

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ABSTRACT: *This article aims to examine the development of Nigeria's environmental legislation framework. Nigeria needs help balancing economic growth and natural resource preservation as a developing country. This duality is mirrored by severe ecological problems, such as the destruction of the marine environment in the Niger Delta by crude oil and groundwater contamination in Lagos, the country's largest megacity. This research method is in-depth on normative legal research methods/library research. This article argues that more progress has yet to be made despite the greater understanding of the need to protect natural resources. The massive and ongoing contamination of vital natural resources underscores this modest increase. Investigations revealed that the same administration that set up this facility was also one of the primary violators of environmental norms and regulations. This often results in a system failure atmosphere where nothing works, and the environment suffers. The possibility of employment, environmental protection and environmental sustainability are advantages of enforcing environmental standards. Among the barriers to effective compliance with environmental regulations are outdated laws; high cost of environmental standards; weak institutional capacity; bad government; staff shortage; inadequate funding; personal interests; overlapping or conflicting laws; ignorance; and lack of the rule of law.*

Artikel ini bertujuan mengkaji perkembangan kerangka undang-undang lingkungan Nigeria. Nigeria, sebagai negara berkembang sedang berjuang untuk mencapai keseimbangan antara pertumbuhan ekonomi dan pelestarian sumber daya alam. Dualitas ini dicerminkan oleh masalah lingkungan yang serius, seperti perusakan lingkungan laut di Delta Niger oleh minyak mentah dan pencemaran air tanah di Lagos, megacity terbesar di negara itu. Metode penelitian ini adalah mendalam pada metode penelitian hukum normatif/library research. Artikel ini berpendapat bahwa meskipun ada pemahaman yang lebih besar tentang perlunya melindungi sumber daya alam, hanya sedikit kemajuan yang dicapai. Peningkatan sederhana ini digarisbawahi oleh kontaminasi sumber daya alam vital yang masif dan berkelanjutan.

Investigasi mengungkapkan bahwa administrasi yang sama yang mendirikan fasilitas ini juga merupakan salah satu pelanggar utama norma dan peraturan lingkungan. Ini sering mengakibatkan suasana kegagalan sistem di mana tidak ada yang berfungsi dan lingkungan menderita. Kemungkinan kerja, perlindungan lingkungan, dan kelestarian lingkungan adalah beberapa keuntungan dari penegakan standar lingkungan. Di antara hambatan untuk kepatuhan yang efektif terhadap peraturan lingkungan adalah hukum yang ketinggalan zaman; tingginya biaya standar lingkungan; kapasitas kelembagaan yang lemah; pemerintahan yang buruk; kekurangan staf; pendanaan yang tidak memadai; kepentingan pribadi; undang-undang yang tumpang tindih atau bertentangan; ketidaktahuan; dan kurangnya supremasi hukum.

Keywords: *Environmental Protection, Environmental Law, Environmental Policy.*

I. INTRODUCTION

There is hardly any legislation from the 2004 volume of the laws of the Federation of Nigeria to date that does not have an environmental law connotation. Without a doubt, some of these have been fraught with various challenges. "The origin of environmental policy in Nigeria is contained in Section 20 of the 1999 Constitution of the Federal Republic of Nigeria (as amended); under it, the State is empowered to protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria" (Ijaiya & Joseph, 2014, p. 54). In addition, Section 2 of the Environmental Impact Assessment Act of 1992 (EIA Act) provides that "the public or private sector of the economy shall not undertake or embark on or authorize projects or activities without prior consideration of the effect on the environment.

The Federal Government of Nigeria has promulgated various laws and Regulations to safeguard the Nigerian environment. These include (i) Federal Environmental Protection Agency Act 1988 (FEPA Act)" (Ite et al., 2016), with the following Regulations: "(a) National Environmental Protection (Effluent Limitation) Regulations (b) National Environmental Protection (Pollution Abatement in Industries and Facilities Generating Wastes) Regulations; and (c) National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations. (ii) Environmental Impact Assessment Act of 1992 (EIA Act) (iii) Harmful Wastes (Special Criminal Provisions etc.) Act of 1988 (Harmful Wastes Act)." Several administrative guidelines have been published by the Federal Ministry of Environment for the EIA and FEPA Acts and evaluation procedures for reporting EIAs. Pre-eminent in this regard is the Land Use Act, amongst others, which divests indigenous tribes of their ancestral lands (Otu & Enyia, 2015). These include noise, traffic, and even the availability of drugs, overpopulation, infrastructural deficit, etc. It is an undeniable fact that a problem does not disappear by putting it elsewhere or assigning its consequences to the future generation. Instead, it has to be faced squarely.

Humans are undeniably responsible for environmental degradation worldwide, and as such, must very much be part of the solution, if he desires a safe and healthy

environment to live in (Bremner & Eng, 2001). The main objective of this research is to "Framework for Environmental Protection in Nigeria."

Overview of Environmental Problems in Nigeria

The environmental problems in Nigeria are acute, pervasive and rapidly increasing (Isife, 2012)." This justifiably ought to be a great source of concern to everyone. "The effects of pollution on air, aquatic resources, water and land are enormous and adversely impact health and economic activities. The increasing population pressure, the declining levels of water tables and more airborne and water-borne pollution from industries and domestic waste," just to mention a few, are some of these.

"Nigeria has a total land area of 983,213 km² occupied by about 180 Million people. The interaction of these millions of people with their environment has left an indelible mark on the landscape (Ndem & Shuaibu, 2019). Urbanization, deforestation, desertification, overpopulation and all kinds of pollution are some of the resultant effects of man's interaction with his environment. These changes occur as the people attempt to acquire their seemingly endless desire for food, shelter, recreation and infrastructural facilities. Though these wants and desires contribute to the development of the country, the unsustainable use of the land and its resources produces negative impacts on the environment (Otu & Mohammed, 2009; Neumayer, 2012).

The is continued consciousness and dominance of environmental issues in current discussion due to the obvious compromise of the biological, chemical and physical integrity of the earth on a day-to-day basis. "The destructive processes are not only continuous but are increasing both in quantum and in rate. While some of the impacts, such as loss of biodiversity, might be gradual, there are hosts of communities around the world today that are being consumed by coastal and gully erosion, sea incursion, bushfires etc. with lives and billions of dollars worth of properties, being lost (Council, 2007). The hard truth is that "we live in a dangerous world; one epitomized by rampaging natural forces, man's insatiable demand for ever-dwindling resources and worsened by an increasing but uncontrolled surge in population growth, especially in developing countries. The world may indeed be a beautiful planet, but it is in ever-constant danger of destruction and despoliation by nature and man. It is a world in which the greed of the present generation gives little thought to the survival of future generations. Due to this scenario, huge damages and pressures are posed on the environment, particularly within the past two centuries which put the planet in jeopardy. Globally and particularly in Nigeria, nature and man have both worked together in putting the environment at risk, apparently worsened by the dearth of financial resources, knowledge, human capacity, technology, and the willingness to remedy the situation by the political class (Komolafe et al., 2014). "In order to appreciate the urgent need for effective monitoring and enforcement of environmental laws in Nigeria, this chapter examines some of the major environmental problems. Some of them result from the nature of Nigerian physical environment, while most of them are due to human activities."

Features of Nigerian Environment

“Due to its peculiar geographical, geological and geomorphologic setting, the Nigeria environmental system is characterized by the combination of natural features that make it uniquely susceptible and highly fragile. In ecological terms, Nigeria is a land of extremes and had remained constantly at risk for ages, with the more recent phenomenon of global warming further accentuating the rate of environmental degradation.” Some of these unique features include:

1. Nigeria is bounded in the south by over 850km long active coastline and in the north by a similar length of the Sahara Desert (Oladipo & Okon, 2018). The country is therefore permanently being ravaged by coastline erosion to the south as well as desertification to the north. Global warming is now acting as a catalyst for these two destructive natural forces. Thus, while coastal inhabitants are under constant threats of sea-level rise, and coastal erosion, Nigerians who dwell along the fringes of the Sahara are under the unabating threats of desertification.
2. The low-lying nature of much of the coastal parts of Nigerian due to its natural geological setting also constitutes a biological threat to the Nigerian environment. Generally, rising to less than five (5) metres above sea level, these coastal regions are highly prone to flooding even with slight rises in sea level.
3. Nigeria is in the middle latitudes in the Gulf of Guinea. It is therefore characterized by generally high and strong wave systems which have more destructive impacts on the shoreline and constantly cause shoreline erosion (Oladipo & Okon, 2018).
4. Nigeria lies within the equatorial belt characterized by generally high torrential rainfall. Annual rainfall ranges from over 3000mm along the coastline to about 600mm in the extreme north. Even with its short season, rain in the north is usually characterized by heavy downpours and high-impact torrents, contributing mainly to gully erosion.
5. Over 40% of Nigeria's land area is covered by loose cretaceous sandstones and deeply weathered basement complex rocks, giving relatively soft and flexible sections near the surface. Such profiles are highly susceptible to gully erosion, especially when combined with torrential rainfall (Allen, 1964).

Major Environmental Challenges in Nigeria

Terminologies such as problem, challenge, calamity, disaster, and hazard are often interchangeably used in literature environmentally related. Challenges denote "the existence of a crisis in the environment in such a way that it can cause damage to man and his environment" (Rose, 2007). Natural disasters like drought continue to threaten Nigeria's environment as a result of man's activities. Visible evidence already exists as scars associated with the destruction of the natural resource base. These vital environmental issues shall be captured broadly as follows:

1. Deforestation

A forest is a large bush with giant trees, while deforestation is a process of felling the trees for several purposes, but without replanting to replace them (Ruf & Zadi, 1998)." Deforestation is a significant cause of global warming and adverse change in the climate system. There is a worldwide campaign for the reduction in deforestation and forest frontier welfare improvement of the communities. To achieve this, management of development plans, stakeholders' cooperation, participation and goodwill are required and targeted enforcement and monitoring as well (Darnall, et al., 2010). The importance of the forest to man cannot be over-emphasized. "Forests act as storm breaks, thereby protecting the towns and villages from destruction. Forests provide valuable products such as wool and charcoal for fuel, fibre for paper and textiles, medicine from the bark and leaves of some plants, breeding ground for animals, check erosion, and supply of food and materials for building houses.

There is a daily reduction in the distribution of forest trees due to the increased demand for timbers for building, construction, and other uses domestically and otherwise; this is a result of the high population growth index and rapid domestic application. As soon as forest trees are cut down, the vegetative cover and soil are exposed, leading to erosion and catastrophic effects such as floods (decay), filling up of lakes and rivers with silts making the waters impure and dirty for use domestically (Williams, 2003). Continuous deforestation and desertification may eventually lead to the extermination of forest resources and timber (both hard and soft), and animals. This ultimately results in gully erosion, which renders land formation unsuitable for farming due to barrenness, lower yields and general or inappropriate for any other development (Williams, 2003).

The diversity and stability of the Nigerian forest have been adversely reduced by deforestation in general due to industrial expansion, urban growth and pressure from an increasing population, as well as agricultural development. "The Food and Agricultural Organization (FAO) estimated that Nigerians destroy about 600,000 hectares of their forest every year through careless exploitation and husbandry. Such careless exploitation of the forest is generally responsible for a number of worsening environmental problems in the country, including a reduction in biodiversity, soil erosion, loss of fertility, desertification and flooding." Carlos Pacheco-Angulo et al., (2017) in analyzing the deforestation and forest degradation processes between 1990-2015, and to give an estimate of "the associated carbon emission in the Caparo Forest Reserve (CFR), an emblematic area of the Venezuelan Western Plains and a highly threatened bioregion, states that the main causes of deforestation in the country can be mostly attributed to agricultural expansion, development of infrastructure and selective logging with other associated indirect reasons that are consistent with those found in many tropical regions.

2. Drought and Desertification

The report of the Vision 2020 committee set up to provide a roadmap that will propel Nigeria to be among the top 20 world economies by 2020 acknowledged that the country is faced with many environmental problems such as the continuous exploitation of marginal lands, drought and desertification in the north, severe gully erosion in eastern

and northern states, uncontrolled logging with inherent problems of destruction of biodiversity, inappropriate agricultural practices etc.

Drought and desertification are by far the most pressing environmental problems afflicting mainly the fifteen northern states in the Country” “The United Nations Convention to Combat Desertification (UNCCD) defined drought as:

“The naturally occurring phenomenon that exists when precipitation has been significantly below normal recorded levels, causing serious hydrological imbalances that adversely affect land resource productive system” (Sulphrey 2016, p. 66).

The visible sign of desertification, resulting from persistent drought and climatic change, is the gradual shift in vegetation from grasses, and bushes and in the final stages, expansive areas of desert-like conditions. While natural forces such as extreme and persistent climatic events play some causative roles, direct anthropogenic pressures such as intensive grazing, over-cultivation and deforestation have aggravated the impact of drought to re-intensify the desertification process. Drought and desertification bring about severe disruption of the socioeconomic development of the affected areas.

The ecological and social-economic impacts of drought can be quite devastating. The seriousness of environmental degradation arising from intermittent shortages, unlike perennial and seasonal droughts, is due mainly to the fact that sporadic droughts disrupt the equilibrium of the ecosystem leading to a marked decline in the capacity of the ecosystem. One of the consequences of a deficiency in Nigeria is human suffering and socio-economic dislocation.

Desertification is the encroachment of the desert on land that was once fertile and productive. Deserts are barren lands, waterless and treeless and often covered with sand, such as the Sahara desert which spread across the African continent (De Vos, 2012). "Desertification results from a combination of drought and mismanagement of land, especially from the disharmony between land use and management on the one hand, and the soil and prevailing climate on the other. Thus desertification, like drought, is a climatic phenomenon. Wherever the highest threat of drought is, there is usually an accompaniment of desertification associated with extremities of events such as dust storms and sand movement. Consequently desertification, like drought, is typically connected with the degradation of land. "Because desertified soils are subject to extensive water and wind erosion and therefore lose much of their depth and ability to store water. Desertification is more pronounced in the northern part of the country, where the Sahara desert has eaten deep into the once-fertile land.

"The Lake Chad basin, which is situated in the area, is not left out of desertification. This is due to natural hazards (Drought and sand particles transported by winds to the area) and man's unwise use of the lake environment. Between 50% and 75% of Bauchi, Barno, Gombe, Kano, Jigawa, Katsina, Kebbi, Sokoto, Zamfara and Yobe States are under threat of desertification. These ten states, with a population of about 27 million people, account for about 38% of the country's total land area (Nwokeoma & Chinedu, 2017). "In these areas, population pressure, resulting in overgrazing, over-exploitation for fuel wood of marginal lands and aggravated drought due to global warming has accelerated the rate of

desertification. Entire villages and major access roads have been buried under sand dunes in the outer parts of Katsina, Sokoto, Jigawa, Borno and Yobe State. Indeed the total areas lost to sand dunes have increased from 812sqkm in 1976 to 4,829sqkm in 1995." "Desertification is dangerous to man. It leads to famine, diseases, and the destruction of crops, livestock and man. Desertification can be controlled through irrigation, terrace ploughing and planting of trees and grasses. Drought and Desertification remain severe ecological and environmental problems, affecting about 15 states in the northernmost part of the country.

3. Soil Erosion

"Soil erosion, the best-known form of land degradation, is a long-standing and serious environmental problem which affects most parts of Nigeria (Thapa & Yila, 2012). According to the "United Nations Convention to Combat Desertification," "land degradation means The reduction or loss, in arid, semi-arid and dry sub-humid areas of the biological or economic productivity and complexity of rainfall cropland, irrigated cropland, or range, pasture, forest and wood-lands resulting from land uses or from a process or combination of techniques including procedures arising from human activities and habitation patterns, such as soil erosion caused by wind and/or water, deterioration of the physical, chemical and biological or economic properties of soil, and long term loss of natural vegetation. The term soil erosion has been known to encompass these processes (Thapa & Yila, 2012). Soil erosion involves the systematic removal and transport of soil, including nutrients, from the soil surface by various agents of denudation, particularly water, wind, and mass movement (Out, 2018; Otu & Nabiebu, 2022). Under conditions of a continuous and prolonged geomorphological or natural erosive process, the formation of soil is capable of keeping pace with the slow attrition. On the other hand, problems of soil erosion arise when anthropogenic, that is, human intervention speeds up the process, resulting in accelerated soil erosion.

The main physical factor influencing soil erosion are rainfall, wind speed, "land use and management, topography and their properties. Soil erosion is site specific, and different permutations of conditions can increase it (Raza et al., 2021). Research has predicted erosion risk as a function of land use and environmental conditions, agronomic quality and environmental quality." The primary cause of soil erosion onset in Nigeria as elsewhere, is human interventions associated with;

- a. clearing the natural vegetation cover of the land and subsequently using the land for arable agriculture.
- b. population pressure and associated changes in land use which increase erosion
- c. susceptibility; and
- d. development projects such as surface mining, infrastructure development, urbanization and industrialization.

These activities increase the destruction of vegetation, reduce infiltrations and increase runoff. These combine to generate soil loss which is sometimes of disastrous proportions. "Soil erosion occurs under different geological, climate and soil conditions in Nigeria. The two types of soil erosion are sheet and gully erosion, which occur in several parts of the

country with the incidence varying significantly in intensity and type from one part of the country to the other. Gully erosion types are the more obvious forms of erosion in Nigeria mainly because of the remarkable impression they leave on the landscape. However, sheet erosion is more pernicious and highly detrimental due to the gradual, constant and uniform action, which ends up in the complete removal of the arable parts of the soil.

The highest concentration of terrible gully erosion in Nigeria is found in the five eastern states, namely, Anambra (with its famous Agulu-Nanka gullies), Enugu, Abia, Imo and Akwa Ibom. In these states, gorges of over 120m in depth and up to 2km in width are not uncommon (Igwe & Fukuoka, 2010). Estimates of active gully erosion sites across the country put the total at 2,000 active gullies. In spite of its severity, gully erosion has affected only a very small portion of the country. For example, in South-Eastern Nigeria, active gully erosion occupies a little less than 2 per cent. In Imo and Anambra States where the situation is most difficult, comparable figures are 1.9 per cent (active) and 5.40 per cent (all types). In these parts, soil erosion is due mainly to the action of running water (Igwe & Fukuoka, 2010).

Sheet erosion is the more pernicious and more widespread type of soil erosion in the country. Every part of the country is affected by it in one form or the other. In the Northern States of Borno, Kaduna and Sokoto, erosion is the outcome of the combined effects of wind and water action. In the Sudan-Sahel zone of the far northern parts of the country, on the other hand, wind erosion occurs more generally and more frequently as a result of sparse vegetation, low rainfall and sandy soil. Marine erosion is also a severe environmental problem restricted to the coastal zone of the country.

4. Flooding

Annually, flooding occurs throughout Nigeria in three primary forms; coastal flooding, river flooding and urban flooding (Olajuyigbe et al., 2012). Coastal flooding occurs in the low-lying belt of mangrove and freshwater swamps along the coast. River flooding occurs in the flood plains of the larger rivers, while sudden, short-lived flash floods are associated with rivers in inland areas where sudden heavy rains can change them into destructive torrents within a short period. Urban flooding in towns located on flat or low-lying terrain, especially where little or no provision has been made for surface drainage, or where existing drainage has been blocked with municipal waste, refuse and eroded soil sediments (Olajuyigbe et al., 2012).

Floods like drought and desertification is a natural hazard which occurs as extreme hydrological (runoff) event. Flooding affects more people on an annual basis than any other form of natural disaster. A variety of climatic and non-climatic processes influence flood processes, resulting in river floods, flash floods, urban floods, sewer floods, glacial lake outburst floods and coastal floods. These flood-producing processes include intense and or long-lasting precipitation, snow melt, dam break, and reduced conveyance due to jams or landslides or by storm. Floods depend on precipitation intensity, volume, timing, phase, antecedent conditions of rivers and their drainage basins, wetness, rate and timing of snow/ice melt, urbanization, and the existence of dykes, dams and reservoirs. Every year during the rainy season in Nigeria, flooding inundates many states, from north

to south, creating situations ranging from mild to severe, some of it capable of producing serious health hazards. With the rainy season starting three months sooner in the southern region (in March), the threat potentially lasts up to more than 200 days (Whitfield, 2012).

In 2018, more than 1.9 million persons were affected by floods across 12 states in Nigeria. More than half a million of them were displaced from their homes. Flash flooding struck this past month in the northern Adamawa, Borno and Yobe states, affecting IDP camps and host communities. To complicate matters, Adamawa State was coping with an ongoing cholera outbreak in four Local Government Areas before the flooding began, with 674 cases, including four deaths, reported since 23rd August. Now, the torrential rains and flash flooding have hindered some of the response efforts (Ya'u, 2022). In Borno State, the torrential rains and flash floods affected an estimated 6.742 households in IDP camps and wiped out some of the water, sanitation and hygiene facilities, further increasing the likelihood of a cholera outbreak. In Yobe State, flood waters are impeding people's access to health facilities.

5. Biological Diversity Loss

Terminologically, Biological diversity is generally used in its abbreviated form "biodiversity". "Article 2 of the United Nations Convention on Biological Diversity (UNCBD) defines biodiversity as (UNCBD, 1992). The variability among living organisms from all sources, including, inter alia, terrestrial, marine and other aquatic ecosystems and the biological complexes of which they are part, includes diversity within species, between species and of the ecosystem (Sutherland, 2009, p. 2).

Biodiversity can also be defined as the totality of genes and ecosystems. It includes all heritable variations or differences in characteristics that exist in all living things, individuals and their species in various ecosystems. Like deforestation, loss of biodiversity is a local environmental problem of global significance. The significance of biodiversity in environmental terms is that the UNCBD, which was opened for signature on 5 June 1992 at the Rio Earth Summit, was inspired by the world community's growing commitment to sustainable development. As noted by Costanza (1999), species diversity appears to have two major roles in the self-organization of large-scale ecosystems. First, it provides the units through which energy and materials flow, giving the system its functional properties. There is some experimental evidence that species diversity increases the productivity of ecosystems by utilizing more of the pathways for energy flow and nutrient cycling. Second, diversity provides the ecosystem with the resilience to respond to unpredictable surprises.

The relevance of biodiversity to sustainable development is that wild species and the genetic variations within them make critical contributions to agriculture, medicine and industry. Perhaps even more important are the essential life processes that are carried out by nature, including stabilization of climate, protection of watersheds, protection of soil, and protection of nurseries and breeding grounds. Since the Earth Summit, biodiversity loss has become increasingly prominent in international, national and local environmental agenda and discourse. The reason is that it has added to serious

environmental problems at the local and sustainable development and poverty alleviation.

World Rainforest Movement (1999) records show that 70-80% of Nigeria's original forest has disappeared and presently the area occupied by forests is reduced to 12% (Adetola, 2016). Although the Nigerian government established several forest reserves for the conservation of forest resources, these forest reserves have been seriously neglected and received little or no improvements in terms of investment and management. The implication of these losses is that many plants and animals, including many potentially valuable species are on the fast track to extinction. The USAID Report on Biodiversity and Tropical Forestry Assessment (2002) recorded that there are many – too many environmental threats in Nigeria affecting Biodiversity. A National Assessment (NCF, 2012) confirmed the reality of the high rise and fast-tracked increase in biodiversity loss in Nigeria.

6. Pollution

The summation of all the various negative environmental effects of human development activities amounts to pollution. Pollution is defined as any introduction by man, directly or indirectly of substance or energy into the environment resulting in deleterious effects of such nature as to endanger human health, harm living resources, ecosystem and material property and impair amenities or interfere with other legitimate uses of the environment (Masindi & Muedi, 2018). Environmental pollution can be categorized into three groups. There exists air or atmospheric pollution (including noise), aquatic or water pollution and land or surface area pollution." The WHO definition of air pollution in a way: "limited to the situation in which the outer ambient atmosphere contains materials in concentrations, which are harmful to man and his environment (Masindi & Muedi, 2018). Man's activities on the earth's surface have largely degraded the quality of the lower atmosphere. The growth and development of industries and urbanization have contributed greatly to the excess carbon monoxide produced by combustion and other human activities. Carbon monoxide reacts with the blood vessel and prevents them from taking up oxygen, and people are currently experiencing air pollution problems. According to Ugbe, "pollution is caused by man directly or indirectly and it affects the environment or man detrimentally" (Masindi & Muedi, 2018).

Environmental degradation in urban centres in Nigeria as a result of pollution from domestic and industrial waste and emissions has accelerated since the 1980s. In Nigeria's urban centres, corruption has occurred so frequently (since the 1970s), and so densely in space (concentrated in urban centres and other hotspots), that it has become cumulative. The reason for this is that pollution from urban solid waste and industries has combined with the effects of other activities such as transport, health and commerce in a synergistic manner to create an enormous range of environmental, health and socio-economic problems in the country's urban centres. Nigeria has always had a large population characterized by a rapid rate of increase. In the urban centres, the existing inadequate physical and social welfare infrastructure is poorly maintained. The manifestations are in various forms and comprise problems of water supply, sewage and sanitation, solid waste management and effluent treatment, flood control, and

unregulated landfill sites. The absence of sewage facilities had often resulted in the dumping of domestic, industrial, human and solid wastes directly into the lagoons surrounding urban centres of coastal states. Faeces are also dumped into water bodies in rural areas.

Transportation and traffic congestion are among the significant causes of pollution in Nigeria. The escalation in air and noise pollution from transport and traffic is typical of Nigerian cities and is a function of the use of old and often poorly maintained vehicles. "Industrial pollution is concentrated in the major cities and aggravates urban pollution from other sources. It has been estimated that more than 90 per cent of industries in Nigeria dispose of their hazardous wastes without treatment within their premises and quite often into nearby land, streams and rivers (Nkwachukwu et al., 2010)." Significant sources of industrial pollution in Nigeria are:

- a. Small-scale informal business and manufacturing (Dorothy & Otu, 2012); and
- b. Large-scale manufacturing industrial establishments.

Household (i.e. domestic) wastes and health care waste (HCWs) constitute a major source of urban and industrial pollution in Nigeria. The refuse heaps, and littering urban streets are perhaps the best dramatization of urban management and administration failures in Nigeria. First, their high visibility and dominance of the landscape of all urban centres do much violence to the aesthetics of the cities. Secondly, they carry the potential for grievous health impacts on the urban population, arising from the stench and the breeding grounds that they provide for rodents and other disease-carrying agents. With the acceleration in the rate of urban expansion, population increases, congestion and consumption, the household component of urban solid wastes has burgeoned. While the major element in the waste stream remains organic wastes and such other traditional items as glass and plastic bottles and jars, plastic and metal cans, and things in rubber, wood, textiles, iron and aluminium, a spectacular change has been introduced (Markham, 2019). In the last decade, non-biodegradable plastics for sachet and bottled water have increased remarkably to the point that they now overwhelm, cities and roads.

The activities of the oil and gas industry are wide-ranging and include the exploration for and production of oil and gas. Others are transportation, hydrocarbon processing, refining and product transportation and marketing. Virtually all these activities impact adversely on the environment." The invasive nature of high technology, oil and gas exploration and exploitation, refining, transportation and product marketing activities affects adversely on the environment. The activities range from the seismic data acquisition operations stage to drilling and development, through to production (onshore and offshore) and the flaring of associated gas. Other pollution-generating activities include transportation by tanker and pipelines, terminal operations and petroleum refining and marketing operations.

High levels of thermal, air and noise pollution are generated by the flaring of natural gas. The localized impact of gas flaring, in the form of ecological destruction of agricultural land and health hazards to the population in the vicinity, is devastating. The CO₂ that is generated is a global problem through global warming and climate change. "Natural gas

associated with crude oil has been flared in the Niger Delta region for more than four decades. The relevant law that deals with gas flaring in Nigeria is the Associated Gas Reinjection Act of 1979 (as amended) which provides for the re-injection of such associated gas not utilized in an industrial project (Raji & Abejide, 2013). Progress has been slow. Statistics on crude oil production indicate that until recently about 70 per cent of the total gas produced in association with crude oil was flared in apparent disregard for the country's 1979 Gas Injection Legislation.

II. METHOD

This research is a research with a more in-depth approach to normative juridical (normative legal research methods/library research). Research that is normative juridical is carried out on the basis of the main legal materials, the research method is by examining theories, concepts, legal principles and laws and regulations related to this research. This approach with the normative juridical method is known as the library approach, because in this method approach, the author will carry out studies and approaches by studying books, laws and regulations and other documents related to this research.

III. RESULT AND DISCUSSION

Historical Development of the Nigerian Legal Framework for Environmental Protection

The set of laws guiding the securement of the Nigerian Environment in Nigeria is Robust in history from a period where the existed an absence of laws to protect the environment up until the present, where numerous enactment persist for Environmental Protection either as laws or regulations (Ogunba, 2015). Environmental law, which is an offshoot of public Law, is a codification of guidelines and principles tailored towards safeguarding the natural environment. A close examination of the Advent of British Rule in Nigeria reveals that inadequate attention was devoted to protecting the environment within that era, and as such, there exist no principal legislations that was centred on the Conservation of the Nigerian Environment, instead what lived during the period was the classification of Environmental harm to be a tortuous action or one of nuisance, this stem from the fact that the Government of the period never considered our environment to be a subject of public interest needing dire consideration.

The foregoing statement is not to say that there existed no form of regulation to look into the criminal aspects of harmful activities that may make life uninhabitable for the citizenry. Starting from this, the Criminal Code Act of 1966, makes it a criminal offence to pollute the Air and water either through public or private nuisance. The period 1917 witnessed the establishment of public health legislation with its ambit principally focused on activities of water, hand and atmospheric contamination. The lapse innate to the legislation was that it still treated issues of environmental hazards as trivial issues more or less secondary in nature from the perspective of sanitary matters.

The crux of matters pertaining to securing the Nigerian environment attracted much research after independence in the sixties, along with the finding of crude oil within the Nigerian state periods so soon thereafter. Within this period, the skeletal and gross inadequacies of environmental protection legal regimes were brought to the lamplight. Among the major reason, the inadequate provision was not contained in a single enactment. Environmental laws at that time existed piecemeal spread across various subheads depending on the incumbent circumstance. Apart from the above reasons, "environmental management was not a priority. Also, at this season, the Nigerian state, alongside other countries within the African region, attended some continental functions at a global level which sort to address issues of marine life protection, maintaining the ecological system and the management of toxic waste from entering into the region.

As posited by Ogumba et al., (2021), great strides in securing the environment evolved in the eighties and nineties, flowing from the incidence of newly ratified and accessed foreign pacts relating to the securement of the environment, these pacts consist of the Convention on Biological Diversity (1992), Vienna Convention of Ozone Layer (1987).

Environment and the Law in Nigeria

Man in his quest for development has laid unrestrained siege on the environment, the result of which has, in turn, threatened his very existence. Efforts to salvage this situation gave rise to many multilateral agreements between nations and at the domestic level, many pieces of legislation have been enacted to control these activities not only to protect the environment but human beings as well. As earlier noted, environmental law embraces all aspects of a nation's legal system: the Constitution, Statutes, regulations, judicial interpretations, common law, and also international laws which have an environmental focus. There exists a concurrent framework consisting of a synergy between the state and the federation to combat the menace of Environmental wrongs within the Nigerian state. The patterns adopted by these parties stems from English Rules of practice common to England and Wales.

Multilateral Environmental Agreement

It is common knowledge that a crisis of global proportion is, and has been affecting the human environment through pollution of the atmosphere and of maritime, coastal, and inland waterways. Nigeria as a nation has signed a number of environmental foreign pact whose primary existence is safeguarding the environment (Beyerlin et al., 2006). These global agreements cannot be brought to bear at our National Court except through the instrument of domestication as local laws in Nigeria, nonetheless, they have significantly shaped the development of modern Environmental Laws as it exists in Nigeria today. Some of this fact are worthy of mention to include:

1. Geneva Convention on Long Range Trans Boundary Air Pollution 1979

The purport of this convention is to safeguard against atmospheric air pollution across country lines. A definition as captured in the law reads thus "long-range trans-boundary air pollution is simply the release, directly or indirectly due to human activity, of substances into the air which has adverse effects on human health or the environment in

another country." The treaty has 32 states and 51 ratification of which Nigeria is excluded from either activity" (Boyle, 2015).

2. Ozone Layer Vienna Convention 1985

The inception of this agreement dates to the period 1985, and it is geared towards the decrease in activities that emanate chlorofluorocarbons into the lithosphere or stratosphere as the case may be, as a persistent rise in these has given rise to cancerous activities amongst the human race. The loophole of the contention exists in its absence to specify modalities to be adopted to tackle those activities that pose a threat to the ozone layer, this is an area that this work seeks to address. The Convention boast 28 signatories as well as 198 states holding participant. Nigeria as at 1988 gave assent and ratify the protocol. It is worthy to note that that the convention however did not mention any substances in particular; it simply environmentally accommodates all substances that could lead to the reduce the protective cover of the stratosphere (Nwoah, 2015). Parties are enjoined to co-operate, formulate and harmonize measures that would enhance the actualization of the convention. The gathering and sharing of information and technology by parties would go a long way in achieving the aims of the Convention. This framework Convention sprung the much better-known Montreal Protocol.

3. Montreal Protocol Dated 1987

The cardinal focal point of this protocol was pertinent to components that exist to deflate the ozone layer which technically the farmers of this protocol termed "Ozone-Depleting Substances (ODS)" (Goyal et al., 2019). These consist of gaseous greenhouse radioactive substances that generate changes to the climate. This protocol is centred on protecting a sensitive part of the stratosphere through the extermination or removal of substances that inhibit the ozone layer. The Nigerian state notably on 31st October 1988 signed and ratified these instruments.

It also has witnessed 46 signatorial and 198 partial ratification. The instrument has achieved world-wide commendation from academic scholars and government stakeholders because it has been credited with the total recuperation of the global ozone layer across trans-boundary country lines. Other potent features of the instrument include its self-imposed targets to ensure the reduction of contaminants that affect the ozone layer.

4. Biodiversity Protection

Biological diversity convention 1992: The genesis of this convention was through a consensus amongst various countries as regards nature and natural substances (Bell, 1992). The objective of the way essentially is protecting, averting destruction and sharing the proceeds of biodiversity through conservation practices. The convention places a demand on member state to document the diversity of species within their territorial state and work out a formula to maintain and preserve it.

5. Global Marine Environment/Pollution of the sea

United Nation Convention on the Law of the Sea (UNCLOS) 1994: This Convention simply regulates the way and manner in which the high seas and ocean are used by countries,

the distribution and harnessing of the vast ocean resources as well as the sustenance of aquatic wildlife existing in the ocean. It is important to note that all other instrument regulating sea activities lacks laid down rules to address the incident of marine pollution in the sea (Nordquist, 2011).

National Environmental Laws

In keeping with the growing global concern for the environment, there are many environmental protection laws in Nigeria. These include:

1. Harmful Wastes Act

This criminalizing Act controls the disposition of hazardous waste substance with hand log or coastal waters of Nigeria. The aforementioned Act defines dangerous waste as any injuring, poisonous, toxic or noxious substance which can subject any person to the risk of death, fatal injury or invariable impairment of physical and mental health (Ifeoluwa, 2019). The disposition, carriage, dumping, or transportation of harmful substances with Nigeria by any individual is considered a criminal offence under the Act. The action for such behavior would necessarily be life behind bars, whereas it involved the use of a medium of transportation they said medium would be confiscated without release to the perpetrator whatsoever.

2. The Environmental Impact Assessment Act

The rationale behind this act is the preventive environmental law principles. The Act stipulates that the consequence of any industrial process should first be considered vis-à-vis the protection of the environment in mind. Where such industrial action will pose a great harm to the environment, they said Act should be suspended (Ifeoluwa, 2019). The Act demand that environmental assessment be carried out with respect to certain development activities. The loopholes affecting the practical application of the Act exist in instances where preliminary objectives are raised on the subject of locus standi (Ifeoluwa, 2019). The bureaucratic procedure associated with the grant of Approval from the Relevant Regulatory body is another downside to Environment Impact Assessment requirement in Nigeria as some scholar has preserved this to be a decay or dog toward development in the country. Other challenges include porous Administrative staff, inadequate facilities as well as bribery and corruption within the parastatal.

3. Nigerian Urban and Regional Planning Act

The Act also covers any development that makes drastic changes to a land or building, the result of which distorts the environment adversely (Agbola & Agbola, 1997). This comprises activities which are done in, alongside, or on the building or land in question but did not interfere with the actual physical characteristics of that building or land (Agbola & Agbola, 1997). For such new use to be considered as harmful to the environment, the said landed or developmental structure, must be materially and substantially different from the old use. These activities shall not have been commenced without a planning permit. Options against a developer include; order for a stop work and service of enforcement notices, or in extreme cases, an order for the demolition of the affected structure or building.

4. National Environmental Standard Regulation and Enforcement Agency Act (NESREA ACT)

This legislation came into existence following the Repeal of the FEPA (Federal Environment Protection Agency Decree 1988) (Ogbodo, 2009). The objective of this regulatory body is essentially protecting the environment in Nigeria. The Act gave birth to NESREA which has a legal person within the concept of Nigeria corporate laws with the ability to institute legal actions, exist in perpetually and possessory of a common seal. The duties of this Agency is enshrined in section 7 of the Act to include enforcement, coordination, management, monitoring, funding, licensing as well as educating the Nigerian citizenry on the essence of preservation and securing the environment.

The Act empowers the agency to ensure that international instruments, pacts and protocols on issues of climate change, biological diversity protection and desert protection are ratified by Nigeria, of which most have by not only endorsed but also domesticated in the country. The lapses observed in the act is its non-inclusion of control with regards to the petroleum sector. This resultant effect of this is activities that affect the marine environment within the Coastal Region of Nigeria such as incidence of oil spillages cannot be addressed by the Agency (Ogbodo, 2009). Domestic waste management is still a challenge in most Nigeria state which makes a mockery of the NESREA Act as well as Air pollution through Agricultural Activities.

Oil Pollution Laws

The laws regulating oil pollution is worthy of consideration as the incidence of oil pollution has caused severe Havoc to the rules consist of the following:

1. Oil Navigable Waters Act

The foremost legislation on preventing and controlling the incidence of oil pollution in Nigerian water ways was this Act. It stipulates acts such as the release of oil into the Nigerian waters by ship vessels to be a criminal offence (Batik, 2002). The offender would, upon conviction by the court made to pay a fine of about N350,000 which is minimal to prevent such further act from reoccurring.

2. Associated Gas Re-injection Act

The establishment of this Act was to prevent the incidence of gas flaring which is a byproduct of the oil production process. The adverse effects of gas flaring is seen in Acidic Rain, as well as respiratory infection (Udok & Akpan, 2017). The Act came into existence during the military Rule in 1979. Gas flaring has been regarded as a form of revenue loss to the Nigerian economy by some scholars. The oil company still continue to engage in gas flaring because of the absence of plants and machinery to harness the re-injection of these gases during the production process. At the moment of new regulation is being approved known as flare Gas (prevention of waste and pollution) regulations 2018 (Obi, et al., 2021).

3. Petroleum Act

The extraction, processes involved in the production of by-product of crude oil generates pollution to the marine environments. This Act was established to prevent incidents of corruption to the offshore waterways some cardinal sections of the Act include section 9 that gives the minister of petroleum powers to make rules that ensure avoidance of contamination to rivers and seas and the environment. The law also oversees the by products of oil waste such as sludges and drilling mud, ensuring that these materials are always deposited in a storage tank for proper disposal.

4. National Oil Spill Detection and Response Agency Act (NOSDRA)

This Agency handles complex cases of oil spillages within the country by initiating first hand response to contain the situation. It controls and manages the oil spillage situation to prevent any form of excavation in line with the mandates as provided under the international pollution address regulations 1990, which is part of Nigeria laws.

5. State Environmental Laws

The states that make up the Entity known as Nigeria are also not left out in the protection of the environment and have assisted the federal government through the establishment of state laws to protect against any form of Environmental Pollution within the state. For instance, Lagos State is a forerunner on the campaign against Environmental Pollution through the Lagos State Environmental Pollution Law. In Cross River State, the management of waste is controlled by a regulatory Agency alongside with the Ministry of Environment. The same situation is applicable in other states of the federation. All the state laws were enacted in order to improve the level of environmental consciousness with the society. However, proper enforcement is very essential if the country is to reap the fruits of their positive effects.

6. Roles of Institutions to Protect the Nigerian Environment

This sub-chapter reviews the major institutions involved in environmental protection in Nigeria which include principally governmental institutions (the Federal Ministry of Environment and other Regulatory Agencies), Non-Governmental Organizations (NGOs) and the Judiciary.

Governmental Institutions

1. Environmental Ministries at Federal/State Levels

The Federal Government of Nigeria has made giant steps towards the protection of the environment at the federal level. This is achieved through each of the environmental legislation that had been created. For instance, the FEPA Act of 1988 led to the establishment of the Federal Environmental protecting Agency and after it was repealed, the subsequent NESREA Act brought about the establishment of an Apex Agency for all environmental matters in Nigeria known as the National Environmental Standards and Enforcement Regulation Agency.

2. NESREA Agency

This Agency was created under the NESREA Act 2007 following the abolishment of the FEPA Agency. It coordinates all laws on the Environment in Nigeria, its rules, regulations

as well as governmental policies for securing our environment (Udok & Akpan, 2017). The unique feature of the Agency is its power to exercise anton piller orders, searches, seizures and delivery up to any material likely to pollute or contaminate the environment.

3. The Niger Delta Development Commission

The commission is a creation of statute, and enjoys a distinct and separate legal personality. The objectives of the commission is to developmental strides for the Delta Region of Nigeria, design programmes that would enhance the well-being of the Delta locality, develop guidelines to manage the natural resources in the region, have a record account of oil-related problems and modalities to tackle these problems, connect with oil companies within the area to develop a workable solution to combat oil spillages and other challenges associated with all Exploration (Udok & Akpan, 2017). The mandate of the commission also extends to empowering the local masses through overseas and local scholarship programmes.

4. The State and Local Government Systems

A vast majority of states across Nigeria have established relevant agencies to address the environmental challenges that the Nation is currently facing. This Ministry or Agencies sometimes, in observed cases, suffer from inadequate manpower, and lack of technical expertise and equipment as most offer the incidence of corruption prevents the optimal operation and functioning of this ministry (Udok & Akpan, 2017). At the local government level, the situation is much more alarming as local government inspectors for pantry sums of money more often overlook incidences of pollution in the state, which is a worrisome trend.

5. The Judiciary

The judiciary being the three branch of government in the country, has a pertinent role to play in the management of the Environment as cases bothering on damage to the environment, action for damages, trespass from oil storage tanks, nuisance associated with gas flaring and oil explanation activities are often filed before the High Court or Federal High Court. The challenge associated with these cases is that more often, the judgement tends to favour the oil companies than the litigant because oil is a main source of Revenue for Nigeria, and as such, the Trustees do not want to expel the oil companies from Nigeria even in instances when a fine is placed upon the oil companies, the amount is usually minimal not such that would be equated with the harm that has been suffered by the community (Udok & Akpan, 2017). The over reliance on a legal technicality is also a cause of concern as the opposing lawyer often employs the defense of Statute Bar, locus standi, and absence of pre-Action notices amongst others, to frustrate the case in court. Also, most cases on Environmental pollution linger for years in the Nigerian Courts, and the burden of cost often hinders the claimant from obtaining justice.

IV. CONCLUSION

The trajectory of environmental regulation in Nigeria started sluggishly and evolved into a reactive state. Today, Nigeria's ecological legislation is progressively getting more stringent, and organizations for environmental management and monitoring are being established. It is encouraging that environmental legislation in Nigeria has advanced in the correct direction, from a condition of near nonexistence to its current level of environmental laws and institutions, with the centralization of ecological management under environmental protection agencies. However, this advancement is insufficient when natural resources, such as groundwater in Lagos, are severely degraded. Neither can genuinely progress be realized if ecological destruction in the Niger Delta continues. Despite national and state environmental policies, NESREA and its various rules, and other environmental legislation, it is regretful that substantial ecological degradation in the form of marine and groundwater contamination continues to occur. Sustainable development also needs strong national and local governance in order to secure these critical resources. Strengthening environmental regulations must include methods for maintaining resource quality to avoid degradation, monitoring and rehabilitation of polluted or damaged resources, and enforcement, including fines for noncompliance. These various actions would conform to international accords about the most effective means of protecting vital natural resources. In this respect, Nigeria might learn from other governments, such as the European Union, that have effectively managed vital natural resources, thus adopting the United Nations' advice in the interest of sustainable development.

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