

**AN APPRAISAL OF THE LEGAL AND INSTITUTIONAL FRAMEWORK FOR THE  
CONTROL OF LAND DEGRADATION IN NIGERIA.**

**BY: ANIMASHAUN OLAMDE OLOLADE**

**150601015**

**BEING A RESEARCH PROJECT SUBMITTED TO THE FACULTY OF LAW  
IN PARTIAL FULFILLMENT OF THE AWARD OF BACHELOR OF LAWS  
(LL. B) DEGREE OF THE UNIVERSITY OF LAGOS, AKOKA, NIGERIA.**

**AUGUST, 2021**

**CERTIFICATION**

This is to certify that the project titled: **AN APPRAISAL OF THE LEGAL AND INSTITUTIONAL FRAMEWORK FOR THE CONTROL OF LAND DEGRADATION IN NIGERIA** is submitted by **ANIMASHAUN OLAMIDE OLOLADE** in partial fulfilment of the award of Bachelor of Laws (LL. B) Degree of the University of Lagos, Akoka, Nigeria, is an authentic work carried out under my supervision and guidance.

.....

.....

**Professor Oludayo G. Amokaye**  
**(Project Supervisor)**

**Date**

.....

.....

**Animashaun Olamide**

**Date**

## **DEDICATION**

This project work is first and foremost dedicated to God Almighty, without whose guidance and directions this project work would not have been completed. I also dedicate this work to my mother, Mrs. Kudirat Animashaun and my siblings Olamiji Animashaun and Toluwalase Animashaun whose unending support served as a constant source of encouragement and motivation to me throughout the journey of this project work. Finally, this work is dedicated to my best and favorite persons, John Oluwaseyifunmi Benson and Ayodeji Kanyinsola Priscilla for being there for me every step of the way.

## ACKNOWLEDGEMENT

First and foremost, praises and thanks to God Almighty, for His showers of blessings, inspiration and guidance throughout my research work.

I cannot express enough gratitude to my mum, Mrs. Kudirat Animashaun for her continuous love and support to me, providing me with all I need to complete this project work. I acknowledge yet again my closest friends, John Benson and Priscilla Ayodeji whose constant support and motivation provided a shining light in my times of uncertainty.

I would like to express my deep and sincere gratitude to my project supervisor, Professor Oludayo Amokaye, for giving me the opportunity to do this research and providing invaluable tutelage throughout this research. It was a great privilege and honor to work and study under his guidance.

Special appreciation goes to Oluwasemilore Shadare and my supportive friends who assisted me in one way or the other during the course of this research, Aduloju Oluwatofunmi Isaac and Oloyede Agbolarinwa. I cannot but thank my close friends for their immense love, support and encouragement, Ken-Williams-Oladipo, Bankole Browne and Aseoluwa Apata, and finally, I extend my gratitude to Mr Olaoye Solomon who supported me in this project work, directly and indirectly. My completion of this project would not have been possible without the help and support of my roommates. Your encouragement when the times got rough are much appreciated and duly noted. My heartfelt thanks.

## TABLE OF CONTENT

### Contents

TABLE OF CASES .....	8
TABLE OF STATUTES .....	11
ABSTRACT.....	13
1.0 INTRODUCTION. ....	14
1.1 BACKGROUND TO THE STUDY.....	14
1.2 STATEMENT OF THE PROBLEM. ....	15
1.3 AIM AND OBJECTIVES OF THE RESEARCH.....	16
1.4 SIGIFICANCE/JUSTIFICATION OF THE RESEARCH. ....	17
1.5 RESEARCH METHODOLOGY.....	17
1.6 LITERATURE REVIEW.....	18
2.0 CHAPTER 2.....	22
2.1 ENVIRONMENTAL POLLUTION .....	22
2.2 TYPES OF ENVIRONMENTAL POLLUTION .....	22
2.2.1 WATER POLLUTION .....	22
2.2.2 AIR POLLUTION .....	23
2.2.3 NOISE POLLUTION.....	24
2.3 LAND DEGRADATION .....	24
2.3.1. CONCEPT OF LAND.....	24
2.3.2. CONCEPT OF LAND DEGRADATION .....	25
2.3.3. CAUSES OF LAND DEGRADATION .....	25
2.3.4. CONSEQUENCES AND EFFECTS OF LAND DEGRADATION .....	27
2.4 NATURE OF FLOODS.....	29
2.4.1 TYPES OF FLOODS .....	29
2.4.2 CAUSES OF FLOOD.....	30
2.4.3 CONSEQUENCES OF FLOOD.....	31
2.5 DESERTIFICATION.....	31
2.5.1. CAUSES OF DESERTIFICATION .....	31
2.5.2 CONSEQUENCES OF DESERTIFICATION .....	32
2.6 SOIL EROSION.....	33
2.6.1. TYPES OF SOIL EROSION: .....	33
2.6.2. EFFECTS OF SOIL EROSION .....	34

<b>3.0</b>	<b>CHAPTER THREE</b> .....	<b>35</b>
<b>3.1</b>	<b>THE COLONIAL PERIOD (1900–1956)</b> .....	<b>35</b>
<b>3.1.1</b>	<b>STRICT LIABILITY: THE RULE IN RYLANDS V FLETCHER</b> .....	<b>35</b>
<b>3.1.2</b>	<b>NEGLIGENCE</b> .....	<b>36</b>
<b>3.1.3</b>	<b>NUISANCE</b> .....	<b>40</b>
<b>3.1.4</b>	<b>TRESPASS TO LAND</b> .....	<b>41</b>
<b>3.2</b>	<b>CONSTITUTIONAL ALLOCATION OF ENVIRONMENTAL POWERS</b> .....	<b>43</b>
<b>3.2.1</b>	<b>CONSTITUTIONS POST INDEPENDENCE</b> .....	<b>44</b>
<b>3.2.2</b>	<b>JUDICIAL INTERPRETATION</b> .....	<b>46</b>
<b>3.3</b>	<b>STATUTORY CONTROLS: THE PERIOD OF PETROLEUM-FOCUSED ENVIRONMENTAL LEGISLATION (1956–EARLY 1970S)</b> . ....	<b>47</b>
<b>3.3.1</b>	<b>OIL PIPELINES ACT</b> .....	<b>48</b>
<b>3.3.2</b>	<b>OIL IN NAVIGABLE WATERS ACT</b> .....	<b>49</b>
<b>3.3.3</b>	<b>PETROLEUM ACT</b> .....	<b>50</b>
<b>3.3.4</b>	<b>NIGERIAN MINING CORPORATION ACT</b> .....	<b>51</b>
<b>3.3.5</b>	<b>HYDROCARBON OIL REFINERIES ACT</b> .....	<b>52</b>
<b>3.3.6</b>	<b>EXCLUSIVE ECONOMIC ZONE ACT</b> .....	<b>53</b>
<b>3.3.7</b>	<b>TERRITORIAL WATERS ACT</b> .....	<b>54</b>
<b>3.4</b>	<b>ENVIRONMENTAL LEGISLATION DURING THE 1970’S AND THE PRE-1987 CRISIS</b> .....	<b>55</b>
<b>3.4.0</b>	<b>FACTORIES ACT 1987</b> .....	<b>55</b>
<b>3.4.1</b>	<b>LAND USE ACT</b> .....	<b>56</b>
<b>3.4.2</b>	<b>ENDANGERED SPECIES (CONTROL OF INTERNATIONAL TRADE AND TRAFFIC) ACT</b> .....	<b>57</b>
<b>3.4.3</b>	<b>ENERGY COMMISSION OF NIGERIA ACT</b> .....	<b>57</b>
<b>3.4.4</b>	<b>RIVER BASINS DEVELOPMENT AUTHORITIES ACT</b> .....	<b>58</b>
<b>3.5</b>	<b>THE CONTEMPORARY PERIOD (POST-1987 KOKO CRISIS UNTIL THE PRESENT)</b> .....	<b>60</b>
<b>3.5.1</b>	<b>HARMFUL WASTE (SPECIAL CRIMINAL PROVISIONS,) ACT</b> .....	<b>60</b>
<b>3.5.2</b>	<b>FEDERAL ENVIRONMENTAL PROTECTION AGENCY (FEPA) ACT</b> .....	<b>61</b>
<b>3.5.3</b>	<b>ENVIRONMENTAL IMPACT ASSESSMENT (EIA) ACT</b> .....	<b>62</b>
<b>3.5.4</b>	<b>NATIONAL ENVIRONMENTAL STANDARDS AND REGULATIONS ENFORCEMENT AGENCY (ESTABLISHMENT: ACT (NESREA)</b> .....	<b>63</b>
<b>3.6</b>	<b>OTHER STATUTES RELATING TO FLOOD, DESERTIFICATION AND EROSION</b> . ....	<b>66</b>
<b>3.6.1</b>	<b>DESERTIFICATION</b> .....	<b>66</b>

3.6.2 FLOOD.....	67
4.0 CHAPTER 4.....	68
4.1 CONCLUSION .....	68
4.2 RECOMMENDATIONS .....	68
BIBLIOGRAPHY.....	70

## TABLE OF CASES

*Rylands V Fletcher* (1868) L.R. 3 H.L. 330

*Cambridge Waterworks V Eastern Railway Company* [1994] 2 AC 264.

*Rainham Chemicals Works L.T.D. V Belvedere Fish Guano Co* (1921) A.C 46,

*Musgrove V Pandelis* (1919) 2 K.B 43

*Humphreys V Cousins* (1877),

*Oladeinde V Continental Textile Mills Ltd* (1975) 6 (CCHCJ)

*Rickards V Lothian* (1913) A.C 263 P.279,

*Read V Lyons* (1947) 16 At P. 176.,

*British Celanese L.T.D. V Hunt* (1969) 1. W.L.R. 959 At P. 963

*Read V Lyons* (1947) 16 At P. 176,

*Umudje V Shell B-P Nigeria L.T.D.* (1975) 11 S.C. 155 at p. 160,

*Hale V Jennings Bros* (1938) 1 All E.R. 579

*Carstairs V Taylor* (1871) L.R. 6 ex. 217

*Dunn V Birmingham Canal Co.* (1872) L.R. 7 q.b. 244 at p. 260

*Hoare & Co. McAlpine* (1923) Ch. 167

*Box V Jubb* (1879) 4 Ex.D.76

*Donoghue V Stevenson* [1932] UKHL 100

*Mullen v A.G. Barr* [1929] SC 461 (Ct Sess) [Barr] 461

*Caparo Industries V Dickman* [1990] UKHL 2

*Hedley Byrne & Co L.T. D* (1964) A.C. 465

*Alderson B Blyth V Birmingham waterworks co.*



*Northwestern Utilities Ltd v London Guarantee and Accident Co. Ltd* (1936) A 108

*Hilder V Associated Portland Cement Manufacturers Ltd*, (1961) 1 W.L.R. 1434

*Paris V. Stepney Borough Council* (1951) AC 367

*Beim V Goyer* (1965) S.C.R. 638,

*Watt V Hertfordshire C.C.* (1954) 2 All E.R. 368

*Latiner v A.E.C. Ltd.* (1952) 2 Q. B. 701

*The Wagon Mound (No.2)* (1967) 1 AC 617,

*Whiteford V Hunter* (1950) W N 553. 9.4,

*Wooldridge V Sumner* All E.R. 978

*Whiteford V Hunter* (1950) W N 553. 9.4

*Nettleship V Westo* (1971) 2. Q.B. 691

*Culther v Bedford Motors* (1971) 1 OB 418

*Munnity of war transport* (1942) AC 127

*Dulieu v White & Sons* (1901) 2 K.B. 669 at p. 679

*The Arpad* (1934) p.189 at p.202

*The Edison* (1933) A.C. 449 at p. 461

*Lagos City Council v. Olutimehin* (1969)

*Abiola v. Ijeoma* (1970) 2 All NLR 768

*Adeniran V Interland Transport ltd.* (1974) 6 S.C. 119

*Lawani v West African Portland cement co.* 3.U.I.L.R pt.4 459

*Amos V Shell B.P Nigeria ltd* (1974) 4 E.C.S.L.R.,

*Oyidiobu V Okeychukwu*, (1937) 7 CCHC 52 at p.56

*Akinyede V Pitan* (1973) 7 CCHC 52 at p.56.,

*Rose V Miles* (1815) 105 E.R. 773,

*Savage V Akinrinmade.* (1991) 9. NWLR

*Entick v Carrington* (1765), 19 St.Tr.1030 at p 1066,

*Ashby V White* (1703) 87 E.R. 810,

*Dabira v Adelaja* (1973) 11 CCHCJ 97 at p.100,

*Wood V Leadbitter* (1863-60) All E.R. Rep.190,

*Balogun V Alakija,* (1963) 2 All N.L.R. 175.

*Simpson v weber* (1925) 133 L.T.46,

*Lavender V Betts* (1942) 2 All E.R.72

*Lajide V Oyelaran* (1973) 2. W.S.C.A. 93

*Sturges v Bridgman* (1879) 11. Ch. 852

*Gerten V Municipality of Metropolitan Toronto* (1973)41 D.L.R.,

*Attorney-General, Lagos v. Attorney-General of the Federation & Or's* (SC 70/2004) [2004]

19 (10 DECEMBER 2004);

*Attorney-General of Ogun state and Or's v. Aberuagba* (1985) JELR 44487 (SC)

## **TABLE OF STATUTES**

Oil Pipelines Act 1990

Oil in Navigable Waters Act 1969

Petroleum Act 1969

Nigerian Mining Corporation Act 1972

Constitution of the FRN, 1999

Hydrocarbon Oil Refineries Act 1965

Exclusive Economic Zone Act 1978

Territorial Waters Act 1967

Associated Gas Reinjection Act 1979

Factories Act 1987

Endangered Species (Control of International Trade and Traffic) Act; 1985

Land Use Act 1978

Energy Commission of Nigeria Act 1979

The 1985 the Sea Fisheries Act (later repealed by Sea Fisheries Decree 1992)

River Basins Development Authorities Act 1986

Harmful Waste (Special Criminal Provisions,) Act. 1988

Federal Environmental Protection Agency (FEPA) Act

Associated Gas Re-Injection Act (1979)

Animal Diseases Control Act (1988)

Bees (Import Control and Management) Act (1970),

Civil Aviation Act (1965) Cap. (51), later repealed by Civil Aviation Act No. 6 of 2006;

Pest Control of Produce (Special Powers) Act (1968)

Agricultural (Control of Importation) Act (1964)

Explosives Act (1967)

Live Fish (Control of Importation) Act (1962)

Quarries Act (1990) repealed by Mineral and Mining Act (2004) Cap. (M12); Food and Drugs Act (1976)

Standards Organisation of Nigeria Act (1970)

National Water Resources Institute Act (1985)

Nigerian Atomic Energy Commission Act (1976)

National Policy on the Environment 1989

Environmental Impact Assessment (EIA) Act 1992

National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007

## ABSTRACT

Land degradation is a crucial problem that impacts humans, animals, the earth and its environs. Without taking measures now to reduce pollution levels, permanent changes to the land can occur. The adverse changes to the environment due to land pollution are subtle, but the problem is much bigger than it appears.<sup>1</sup> The world today is combating a significant challenge of pollution in manifold forms such as land pollution. Land pollution refers to deleterious substances that enter the land which has a dangerous effect on the environment and its inhabitants. It unfolds as a global environmental problem, specifically associated with urbanization and industrialization, that requires global and municipally coordinated environmental policies.

This study examines in detail, the environmental challenge of Land degradation, its sources, effects, and consequences. This paper uses a conceptual perspective on environmental hazards and risks arising from land contamination to review and analyze the largely descriptive nature of various typology of land degradation. From this perspective, the study probed into the other aspects of land degradation such as floods, erosion, and desertification.

Furthermore, the paper provides much-needed information about Nigeria's legal and institutional framework for controlling and managing land contamination, its adequacies and its inadequacies if any. To that end, the paper will provide remedies and recommendations to international organizations, governments, non-governmental organizations, environmental managers, future leaders, planners, technologists, and other decision-makers in order to reduce the frequency, magnitude, and consequences of environmental challenges caused by land degradation.

**KEY WORDS: Land Degradation, Land Pollution, Environmental Challenge, Environmental Hazards, Land Contamination, Desertification, Floods, Erosion.**

---

<sup>1</sup> Kaberi Murmu, Land Pollution: Causes, Effects and Remedies available at [http://www.rnlkwc.ac.in/pdf/study-material/geography/4th\\_Sem\\_General\\_GEO\\_GE\\_03\\_TH\\_4.%20Land%20Pollution.pdf](http://www.rnlkwc.ac.in/pdf/study-material/geography/4th_Sem_General_GEO_GE_03_TH_4.%20Land%20Pollution.pdf)

## **1.0 INTRODUCTION.**

### **1.1 BACKGROUND TO THE STUDY.**

The environment, apart from being the physical surrounding for natural habitats, allows its inhabitants which are human beings to carry out their commercial, industrial, agricultural, and technological activities for the evolution and growth of their community. For this purpose, environmental issues are now at the fore-front in academic discourse both at the national and international levels.

Nigeria, gained official prominence after the 1988 Koko toxic waste dumping incident which led to the need to establish the Nigeria Federal Environmental Protection Agency (FEPA), Federal Ministry of Environment and other relevant agencies, ostensibly to tackle environmentally related issues, in the country such as environmental degradation, sanitation, depletion of ozone layer, desertification, flooding, erosion, poverty, bush burning, deforestation, soil conservation etc. Environmental pollution results from the activities of man through the use of technology to manipulate the ecosystem or environment to meet his needs.

Environmental pollution is defined as the contamination of the physical and biological components of the earth/atmosphere system to such an extent that normal environmental processes are adversely affected. Nigeria as a developing country has lost much of her habitable environment due to Environmental pollution. This issue of pollution by air, water or land is a widespread problem that causes grave and irreparable damage to human health, agricultural productivity and the earth in general. Water contamination is brought about by natural or inorganic substances through common and human instigated exercises, the regular natural contamination is brought about by compounds spilling from underground tanks, or from zones where mechanical natural squanders have been discarded close to the ground surface, inorganic contamination of water is brought about by oil release from vessels, unloading from boats and airplanes, squanders removal from land, oil spillage, and different methods for dirtying the climate. Barometrical contamination is brought about by a few factors, for example, particulates discharged from mechanical sources, emanation from engine vehicles, volcanic ejection, radiating toxic synthetic substances into the air, deforestation, shrub copying and so on and land pollution which is the topic of this paper is brought about by spillages, tainting emerging from modern exercises, stores of waste and build-ups, mining and investigation exercises and agrarian exercises.

Pollution has been known to be in existence for a very long time and much had been studied on its relationship with the global growth in cities and the industrial revolution brought with its technological progress such as exploration of oil and its virtually universal use throughout different industries have aggravated the concentrations of pollution in recent time.<sup>2</sup> According to Harrop, environmental pollution has become an unending problem in the modern society and it is now becoming a threat to the livelihood of the people. The air we breathe, the water we drink and the soil on which most of our food is grown, constitute the main elements of our environment.

Land pollution plays a very important role in affecting the health of human beings in different ways<sup>3</sup> the land which is contaminated with toxic chemicals can lead to many health problems like cancer, defects in the human respiratory system and more as these toxic chemicals can enter the human body through the consumption fruits and vegetables grown on the polluted land, through poisoning of ground water through the introduction of toxins like arsenic, lead, cadmium can cause birth defects, damages in various organ systems of the body like the reproductive system, nervous system and the disposal of spent fuel rods from nuclear power plants can lead to the exposure of harmful radiations to human beings which can cause illnesses like skin cancer and birth defects.

Land Pollution has led to a series of other issues that we have come to realize in recent times, after decades of neglect which include pollution of the soil, environmental impacts, contamination of water, ingestion and inhalation of toxic substances, chemical attacks on building materials and substances, dangerous effect and threat to health of wildlife and more.

## **1.2 STATEMENT OF THE PROBLEM.**

Although some common law principles exist to regulate private injuries arising from land contamination, such as the tort of trespass, negligence, nuisance and the rule in *Rylands v Fletcher*<sup>4</sup>, public regulation of changes to land contamination use in Nigeria is still in its infancy.<sup>5</sup> Legislative control of major changes in land use was not deemed important until the

---

<sup>2</sup>Dr. Bosede Remilekun Adeuti, Analysis of Environmental Pollution in Developing Countries available at <https://core.ac.uk/download/pdf/288187996.pdf>

<sup>3</sup> Shivangi (2016),

<sup>4</sup> (1868) LR 3 HL 330

<sup>5</sup> Oludayo G, Amokaye, Principles of Environmental Law in Nigeria, (2014),

Federal Environmental Protection Agency Act<sup>6</sup> and the Harmful Waste Regulation Act<sup>7</sup> were enacted. As a result, concern about the presence of undesirable contamination on land has been relatively rare and underregulated, but with the advent of FEPA, more statutes that provide for the protection of land degradation have been enacted. This paper seeks to particularly examine the adequacies and inadequacies of the legal and institutional framework that has been put in place for the control and management of land pollution in Nigeria and will also proffer solutions and recommendations to the inadequacies if any as well as the problems of land degradation.

Chapter one provides a general introduction to the topic which is inclusive of the background to the study, statement of the problem, aims and objectives of the research, research questions, research methodology and literature review on the topic. Chapter two will discuss the concept of environmental pollution, and its various types, land degradation, its various sources and other sources such as desertification, floods and erosion. Chapter three will examine the various legal and institutional framework for the control of land pollution in Nigeria from the colonial administration till present, its adequacies and its inadequacies if any and chapter four will discuss conclusions and recommendations to problems of land pollution and any inadequacies of the legal framework discussed and conclusions.

### **1.3 AIM AND OBJECTIVES OF THE RESEARCH.**

1. To discuss land degradation, its sources and its impacts on humans and its environment.
2. To provide a detailed analysis on the various aspects of land degradation as well as their consequences and impacts.
3. To examine the legal and institutional framework for the control and management of various types land degradation in Nigeria and its adequacies and inadequacies if any.
4. To provide recommendations and solutions for the problem of land degradation and any inadequacy discussed while examining the legal and institutional framework for land pollution in Nigeria. .

### **1.4 RESEARCH QUESTIONS.**

---

<sup>6</sup> Federal Environmental Protection Agency Act (1987) Cap. (F10), S. 1, 5, *repealed by* National Environmental Standards and Regulations Enforcement Agency (Establishment) Act No. (25) (2007). 2007 available at <http://extwprlegs1.fao.org/docs/pdf/nig120569.pdf>

<sup>7</sup> 1988 No 42 available at <http://extwprlegs1.fao.org/docs/pdf/nig18377.pdf>



This research shall answer the following questions

1. What is environmental pollution ? what are the various types of environmental pollution?
2. What is land and land degradation?
3. What are the causes of land degradation?
4. What are the impacts on land pollution on human beings and its environment?
5. What are the other various types of land degradation and how do they affect the earth and its inhabitants?
6. What are the legal frameworks for the protection and control of land degradation in Nigeria ?
7. Are the legal and institutional frameworks adequate or inadequate for protecting land from contamination?
8. How can land degradation be curbed or managed?
9. What are the recommendations for the inadequacies of the legal framework examined?

#### **1.4 SIGIFICANCE/JUSTIFICATION OF THE RESEARCH.**

This research is evidenced by the effects of land degradation outlined in the background to the study. The risk associated with land pollution must not be ignored as the problems associated with it arises every day and causes grievous harm to the environment and its inhabitants. The issue of environmental pollution has been debated by different legal experts, judges, researchers, writers, municipal and international organizations, and the common man. Thus, this research is given to aid the discourse and to serve as its own way of examining some of these environmental issues as well as proffering solutions to them. The writer believes that without a conducive environment, survival of human beings is limited and thus this study is significant.

#### **1.5 RESEARCH METHODOLOGY**

This research will be conducted adopting the doctrinal method of research. A textual analysis of relevant laws, regulations, principles and scholarly publications will be employed in order to address the research questions and attain the research objectives. The primary sources to be relied on include the numerous acts, statutes, laws and case laws and the secondary sources will include books, unpublished articles, journals, magazines., articles, publications, international reports, periodicals and internet sourced materials that are significant to the study.

## 1.6 LITERATURE REVIEW.

“Understanding Environmental Pollution” by Marquita Hill.<sup>8</sup> The textbook is lucidly written and is a thorough approach to comprehending pollution issues, Understanding Environmental pollution systematically addresses the spectrum of these issues, from global stratospheric ozone depletion to personal pollution in the home. Dr Hill identifies pollutants and their sources, addresses the risks to humans and the environment, and discusses what is being done to reduce emissions. Throughout she applies four tests to the relevant issue, what are the pollutants of concern? why are they of concern? To what sources do human risk exposure? How are emissions of the pollutants being reduced? However, Dr. Hill's textbook did not include a detailed analysis of land degradation, which is one of the topics addressed in this paper.

“Managing Environmental Pollution” by Andrew Farmer<sup>9</sup> presents a comprehensive introduction to the nature of pollution, its impact on the environment, and the practical options and regulatory frameworks for pollution control. Sources of pollution, regulatory controls, technological solutions, management and mitigation techniques and assessment tools, are examined in each key area: air, freshwater, and marine pollution, contaminated land and radioactive substances. Illustrated with a worldwide range of case examples, this book offers an invaluable up-to-date guide to both the principles and practice of pollution management. The book did not provide an in-depth discussion of various aspects or typologies such as floods, erosion, desertification, or wetlands, and chapter two of this research is devoted to this topic.

“Environmental Pollution Control” Book by Jingling Liu, Lulu Zhang, and Zhijie Liu. The book illustrates theories of sustainable development from physical, chemical and biological aspects, and then introduces technologies to prevent pollution of water, air, solid waste and noise, finally concludes with ecological environmental protection and restoration techniques. With interdisciplinary features and abundant case studies, it is an essential reference for researchers and industrial engineers. The book did not examine environmental pollution, particularly land pollution, from a legal standpoint, but rather from biological, chemical, and physical perspectives. The research paper, on the other hand, will go over the legal framework for controlling land pollution.

---

<sup>8</sup> Marquita Hill “Understanding Environmental Pollution” accessed at <https://books.google.com.ng/books?id=1yrx2dFNV90C&lpg=PR3&dq=understanding%20environmental%20pollution%20citation&pg=PR3#v=onepage&q&f=false>

<sup>9</sup> Available <https://www.routledge.com/Managing-Environmental-Pollution/Farmer/p/book/9780415145152>

“Environmental Pollution and Health” by V. K. Ahluwalia.<sup>10</sup> Environmental Pollution and Health expounds the three main types of environmental pollution air, water, and land and their effects on human health. It also focuses on photochemical air pollution, marine pollution, thermal pollution, noise pollution, and radioactive pollution and their effects on human health. The book also discusses the impact on the health of the human beings by factors other than pollutants. These factors include occupation of a person, stress, global warming, and ozone layer depletion. Finally, the author has dealt with various types of wastes generated in different establishments and how they should be managed. This journal solely limited the impact of environmental pollution to health effects and did not provide other means by which the pollution of the environment, particularly land degradation can cause harm to other species of the environment like the earth itself, animals and wildlife, water, air and more as this paper has intended to do.

“Environmental and Pollution Science” by Mark Brusseau Ian Pepper Charles Gerba<sup>11</sup>, Third Edition, continues its tradition on providing readers with the scientific basis to understand, manage, mitigate, and prevent pollution across the environment, be it air, land, or water. This third edition has been updated and revised to include topics that are critical to addressing pollution issues, from human-health impacts to environmental justice to developing sustainable solutions. Environmental and Pollution Science, Third Edition is designed to give readers the tools to be able to understand and implement multi-disciplinary approaches to help solve current and future environmental pollution problems. The book also did not provide an insight into environmental pollution, particularly land pollution, from a legal standpoint, but rather from a scientific standpoint. The research paper, on the other hand, will go into great detail about the legal framework for controlling land pollution.

“Analysis report, land-based pollution sources, a global analysis of land-based pollution sources, science and transboundary management”.<sup>12</sup> This report is written as part of the IW: Science series of reports comprising a Synopsis and Analysis for each of five classes of global transboundary water system: River Basin, Lake, Groundwater, Land-based Pollution Sources, and Large Marine Ecosystems and Open Oceans.

---

<sup>10</sup> Available at <https://www.amazon.com/Environmental-Pollution-Health-V-Ahluwalia/dp/8179934616>

<sup>11</sup> Available at <https://www.elsevier.com/books/environmental-and-pollution-science/brusseau/978-0-12-814719-1>

<sup>12</sup> Available at <https://iwlearn.net/iw-projects/3343>

Dr. S. Gozie's article titled "Environmental Protection in Nigeria: Two Decades After the Koko Incident," is an Annual Survey of International & Comparative Law<sup>13</sup>. The article posits that as a result of the Koko incident, local legislation was enacted while international treaties were adopted or ratified. The article analyzed these laws and their efficacy in the light of the increasing exposure of the Nigerian environment to toxic waste exposure, and have come to the conclusion that these legislative efforts need some fine-tuning in order to meet the challenges posed two decades after Koko. In furtherance to the exercise, the article made recommendations to enhance the success of these efforts, these existing laws, borrowing heavily from the trends in developed states. However, the article did not provide a detailed analysis of land degradation in her textbook, which is core of this research

"The impact of flooding on Nigeria's sustainable development goals (SDGs)"<sup>14</sup> is a journal by Adaku Jane Echendu. The paper highlights the impact flooding has on Nigeria reaching SDGs and enumerates the specific SDGs most directly impacted. A systematic literature review in the journal provides an overview of the relationship between flooding in Nigeria and the SDGs. It highlights the main causes of Nigeria's flooding problem are man-made and advocates spatial planning as a suitable Flood Risk Management (FRM) strategy for the Nigerian environment. The paper calls for collaborative action by all concerned stakeholders to address the flooding problem and to help move Nigeria closer to meeting the United Nations (UN) 2030 SDGs. The paper solely focuses on flooding and did not inquire into other sources of land degradation. The writer seeks to achieve this in chapter two of this paper.

"Environmental Pollution in Nigeria; Types and Health Consequences" by *Agboola Happiness Opeyemi*<sup>15</sup>. The article discusses the different types of pollution in Nigeria, the health impacts arising from pollution globally and recommends policy measures to reduce the health impact of pollution.

---

<sup>13</sup> Ogbodo, Dr. S. Gozie (2009) "Environmental Protection in Nigeria: Two Decades After the Koko Incident," *Annual Survey of International & Comparative Law*: Vol. 15: Iss. 1, Article 2. Available at: <http://digitalcommons.law.ggu.edu/annlsurvey/vol15/iss1/2>

<sup>14</sup> Adaku Jane Echendu (2020) The impact of flooding on Nigeria's sustainable development goals (SDGs), *Ecosystem Health and Sustainability*, 6:1, 1791735, DOI: 10.1080/20964129.2020.1791735 Accessed at: <https://doi.org/10.1080/20964129.2020.1791735>

<sup>15</sup> Available at [https://www.researchgate.net/publication/329558496\\_Environmental\\_Pollution\\_in\\_Nigeria\\_Types\\_and\\_Health\\_Consequences\\_A\\_Review](https://www.researchgate.net/publication/329558496_Environmental_Pollution_in_Nigeria_Types_and_Health_Consequences_A_Review)

“Environmental Pollution in Nigeria: The Need for Awareness Creation for Sustainable Development” by Evelyn, M. Ityavyar and Tyav, Terungwa Thomas<sup>16</sup> is a journal of research in forestry, wildlife and environment. The research journal examines the issue of environmental pollution and its attendant consequences on the Nigerian society. In doing so, the paper has on the basis of personal observation and secondary sources examined the effects of environmental pollution in Nigeria. The research paper observes that these problems are a consequence of environmental pollution which also degenerates into environmental degradation and several other hazards such as widespread epidemics, depletion of natural habitats, and thus; impede the socio-economic development of Nigeria as a nation and paper recommends awareness creation and change in attitudes for effective environmental and resources management strategies as a way forward.

“Drought, desertification and the Nigerian environment: A review” by Olagunju, Temidayo Ebenezer<sup>17</sup> is a Journal of Ecology and the Natural Environment which posits that the impacts of drought and desertification are felt in all aspects of the environment and human livelihood. The journal also suggested various remedies to the problems which involves awareness, protection of marginal lands, planting of indigenous tree and shrub species, sustainable agricultural practices and use of alternative energy source. The journal reinstated the need to bridge the gap between the formation of policy and strategies of combating drought and desertification so that government efforts to combating desertification can be productive.<sup>18</sup> This research focuses solely on desertification and did not inquire into other sources of land degradation.

---

<sup>16</sup> Available at <https://www.ajol.info/index.php/jrfwe/article/view/84726/75830>

<sup>17</sup> Available at

[https://www.researchgate.net/publication/287146894\\_Drought\\_desertification\\_and\\_the\\_Nigerian\\_environment\\_A\\_review](https://www.researchgate.net/publication/287146894_Drought_desertification_and_the_Nigerian_environment_A_review)

<sup>18</sup> “Drought, desertification and the Nigerian environment: A review” Olagunju, Temidayo  
<http://www.academicjournals.org/JENE>

## **2.0 CHAPTER 2**

### **2.1 ENVIRONMENTAL POLLUTION**

The term pollution is a derivation of the word pollute-which means, to make something dirty or no longer pure, especially by adding harmful or unpleasant substances to it.<sup>19</sup> The committee on pollution of the United States National Research Council (1965) defined pollution as; an undesirable change in physical, chemical, or biological characteristics of our air, land, and water that may or will harmfully affect human life or that of other desirable species, our industrial processes, living conditions cultural assets that may or will waste or deteriorate our raw material resources.

### **2.2 TYPES OF ENVIRONMENTAL POLLUTION**

#### **2.2.1 WATER POLLUTION**

Pollutant according to the National Environmental Surface and Ground Water Quality regulations, 2011<sup>20</sup> has been defined to mean any element or property of dredged material, solid waste, incinerator residue, sewage, garbage, sewage sludge, sediment, filter, backwash, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, industrial or municipal or agricultural waste or effluent, petroleum or petroleum products including but not limited to oil, or any other material which will likely alter the physical, chemical, biological or radiological characteristics and or integrity of water.

Water pollution is most often caused by contaminants in the water, which include a wide range of chemicals, pathogens, and physical or sensory changes such as increased temperature and declaration, oxygen-depleting substances, which can be natural or man-made chemicals, and chemical substances such as pathogens, which cause waterborne diseases in both human and animal hosts. Surprisingly, the World Health Organization estimates that water is directly or indirectly responsible for up to 80% of all diseases worldwide. Water-borne diseases kill at least 25 million people in developing countries each year, according to the WHO. Water pollution has contributed to the spread of diseases such as cholera, dysentery, typhoid fever, and parasitic diseases such as amoebiasis, giardiasis, ascariasis, and hookworm, to name a few. Water pollution is a cog in the aquatic environment's wheel because it kills and reduces aquatic

---

<sup>19</sup> Environmental Pollution in Nigeria: The Need for Awareness Creation for Sustainable Development. By Evelyn, M. Ityavyar accessed at <https://www.ajol.info/index.php/jrfwe/article/view/84726/75830>

<sup>20</sup> Reg 35

animal reproduction. Commercial fishing cannot take place in polluted waters for economic reasons, and pollution control is prohibitively expensive. Polluted water deters those who enjoy aquatic activities. Furthermore, industrial pollutants such as mercury, chromium, cadmium, and lead are poisonous when they are deposited in bodies of water. They can also enter food chains and spread disease to humans.

### **2.2.2 AIR POLLUTION**

The UN Convention on Long-Range Transboundary Air Pollution defined air pollution as the presence of any substance in the atmosphere at a concentration high enough to produce an objectionable effect on humans, animals, vegetation, or materials or to alter the natural balance of any ecosystem significantly. The substances can be solids, liquids, or gases and can be produced from both natural and anthropogenic sources. Anthropogenic sources include smoke attacks and vehicular exhaust, whereas natural sources include dust, wind, methane emitted by the digestion of food by animals, such as cattle Industries/Factories, motor vehicle exhaust, electric cables, homes, incinerators, mechanic villages, bush burning, locomotive railway, airplane, and so on. Vehicle emissions account for roughly half of global air pollution, while digging, tillers, and fires used for clearing bushes or cooling account for the other half.

According to the World Health Organization, 2.4 million people die each year from causes directly related to air pollution, with 1.5 million of these deaths directly related to indoor air pollution. Air pollution's health effects can range from subtle biochemical and physiological changes to difficulty breathing, wheezing, coughing, and worsening of respiratory and cardiac conditions. These consequences can include increased medication use, increased doctor or emergency room visits, increased hospital admissions, and premature death. Poor air quality has far-reaching consequences for human health, primarily affecting the body, respiratory system, and cardiovascular system. Individual responses to air pollutants are determined by the type of pollutant, the degree of exposure, the individual's health status, and genetics.<sup>21</sup>

---

<sup>21</sup> National Open University of Nigeria, Law 321, Environmental Law accessed at <https://nou.edu.ng/sites/default/files/2017-03/LAW%20321%20Environmental%20Law%201.pdf>

### **2.2.3 NOISE POLLUTION**

Noise according to the Noise Standards and Control regulations is 2009 defined as an unwanted, annoying, or excessive non-harmonious sound that has undesired psychological institutional and adverse effects on human health and environment. By definition, noise pollution is a loud unwanted, undesired, or excessive sound that can have deleterious effects on human health and environmental quality.<sup>22</sup> Sources of noise pollution amplified musical engine, domestic noise, motor vehicle noise, airplane noise, locomotive railway noise, noise generated by the religious houses g. voices/sound from the neighbours, boat engines, Road traffic noise, Noise from construction sites, factories, mining, quarrying noise, noise emission from industries, Mechanic and welder workshops' noise.<sup>23</sup>

In the review of “Noise Pollution & Human Health”, Hiral, Minarva, Pandya & Yogesh<sup>24</sup> listed the following as effects of noise pollution; hearing impairment, negative social behaviour, and annoyance, interference with spoken communication, sleep disturbances, cardiovascular disturbances, disturbances in mental health. According to Moronkola,<sup>25</sup> noise pollution results in health implications like hearing problems, high blood pressure, stress, ulcer, aggression, poor concentration which may lead to accidents and poor academic performance. Noise pollution from ship engines and solar systems makes it difficult for marine mammals like whales, dolphins, and porpoises to communicate, find food, and avoid hazards.<sup>26</sup>

## **2.3 LAND DEGRADATION**

### **2.3.1. CONCEPT OF LAND**

Land can include anything that's on the ground, which means that buildings, trees, and water are a part of the land as an asset. The term land encompasses all physical elements, bestowed by nature, to a specific area or piece of property the environment, fields, forests, minerals, climate, animals, and bodies or sources of water.<sup>27</sup> The land is an essential component of the earth's terrestrial ecosystem. It promotes plant growth and serves as a home for a variety of animals and microorganisms that decompose leaf, litter, and plant residues; as a result, the land promotes the growth of arable crops, grasslands, and plants on which man depends for food, fibre, and wood for fuel and building materials. Despite land-use impacts, the land is required

---

<sup>22</sup> Oludayo Amokaye, Principles of Environmental Law in Nigeria.

<sup>23</sup> Ibid

<sup>24</sup> (2017)

<sup>25</sup> 2003

<sup>26</sup> Ibid no 3.

<sup>27</sup> What is Land accessed at <https://www.investopedia.com/terms/l/land.asp>



to support human and ecosystem needs. Urban areas promote economic growth and satisfy the housing, industrial, and commercial needs of growing human populations.<sup>28</sup> Agricultural land is critical to provide food and fiber to growing populations and is an important source of employment in many countries. Forest areas provide raw materials for housing and the lumber industry and are important habitats for wildlife. Wetlands and water bodies cover land and are important in sustaining aquatic habitat and water supplies. Coastal fisheries, which are influenced by land-based activities, provide commercial and recreational opportunities. Thus, the basic needs of food, water, fuel, clothing, and shelter are met from the land, which increasingly is becoming limited in supply.<sup>29</sup>

### **2.3.2. CONCEPT OF LAND DEGRADATION**

Pollution, in all of its forms (air, water, land), refers to the introduction of substances into the natural environment that do not belong there and are not naturally present, resulting in its destruction and causing harm to both humans/all living organisms and the environment. So, in land pollution as well, solid or liquid waste materials get deposited on land and further degrade and deteriorate the quality and the productive capacity of the land surface. It is sometimes used as a substitute of/or together with soil pollution where the upper layer of the soil is destroyed.<sup>30</sup> Thus, land pollution is regarded as the destruction of the land and soil, directly or indirectly as a result of human activities.

### **2.3.3. CAUSES OF LAND DEGRADATION**

The degradation of land surfaces is caused directly or indirectly by human (anthropogenic) activities. Industrialization, overpopulation, and urbanization are the main umbrella from which the other causes of land degradation stem from. Some of them include;<sup>31</sup> improper waste disposal (agricultural/domestic/industrial/solid/radioactive waste), littering, mining, and polluting the land through removing the topsoil which forms the fertile layer of soil or leaving behind waste products and the chemicals used for the process, misuse of land deforestation, land conversion, desertification, soil pollution which is the pollution on the topmost layer of the land, soil erosion which is the loss of the upper and the most fertile layer of the soil and the chemicals which are inclusive of pesticides, insecticides, and fertilizers applied for crop enhancement on the lands.

---

<sup>28</sup> Examples of land use accessed at <https://askinglot.com/what-are-some-examples-of-land-use>

<sup>29</sup> Land Use Planning accessed at <http://www.waterencyclopedia.com/La-Mi/Land-Use-Planning.html>

<sup>30</sup> Pollution Land Zerrin Savasan accessed at [https://www.researchgate.net/profile/Zerrin-Sivasan/publication/318139285\\_Pollution\\_Land/links/59b3d737458515a5b4908f93/Pollution-Land.pdf](https://www.researchgate.net/profile/Zerrin-Sivasan/publication/318139285_Pollution_Land/links/59b3d737458515a5b4908f93/Pollution-Land.pdf)

<sup>31</sup> Ibid.

- **Soil Erosion:** Soil erosion is the natural physical wear and tear of a field's topsoil caused by water and wind. It can be a lengthy process. It is either relatively unnoticed or can occur at an alarming rate, resulting in significant topsoil loss. Other serious soil degradation conditions that can accelerate the soil erosion process include soil compaction, low organic matter, loss of soil structure, poor internal drainage, salinization, and soil acidity.
- **Deforestation, Agricultural Activities, and Mining activities-** Land pollution may also result from deforestation, agricultural activities, mining, and oil exploration. To protect crops, harmful pesticides and insecticides are frequently used as part of the farming process. The chemicals, on the other hand, have the potential to devastate the land. The once rich ground is now more vulnerable to environmental factors such as wind. Degradation also is exacerbated by liquid leakages of hydrocarbon solvents and substances as a direct consequence of these activities.
- **Open defecation:** this is the process of removing waste feces from the body directly on land in an environment, resulting in a decrease in soil quality.
- **Overcrowding in landfills and construction:** Each household generates tons of garbage each year. Garbage such as aluminum, plastic, paper, cloth, and wood is collected and delivered to the local recycling center. Items that cannot be recycled end up in landfills, where they detract from the city's beauty and cause land pollution.<sup>32</sup> Because of urbanization, a large number of construction activities are taking place, resulting in large amounts of waste articles such as wood, metal, bricks, and plastic that can be seen with the naked eye outside any building or office that is under construction.<sup>33</sup>
- **Nuclear waste/sewage treatment:** The left-over radioactive material contains harmful and toxic chemicals that can affect human health. They are dumped beneath the earth to avoid any casualty. A large amount of solid waste is leftover once the sewage has

---

<sup>32</sup> Land Pollution accessed at <https://tunza.eco-generation.org/ambassadorReportView.jsp?viewID=38084>

<sup>33</sup> Ibid.

been treated. The leftover material is sent to the landfill site which ends up polluting the environment.<sup>34</sup>

- **Conflicts, Wars, and the Environment:** the impact of conflict on the environment is a negative one. It disrupts public peace and security, causes destruction to the environment and human beings inhabiting it and the production of goods and services is also halted during war or conflicts.

#### 2.3.4. CONSEQUENCES AND EFFECTS OF LAND DEGRADATION

- **Contaminant uptake in food plants:** The accumulation of certain metals, particularly cadmium and lead, in edible parts of food plants may render crops unfit for consumption.
- **Phytotoxicity:** The inhibition or prevention of plant growth. It can be caused by a variety of factors, including chemical contamination, a lack of topsoil, or a lack of essential fertilizers. Boron, copper, nickel, and zinc are the most toxic elements.
- **Contamination of water:** Water pollution is becoming increasingly recognized as one of the most difficult and serious consequences of soil contamination. Construction disruption may cause contaminants to enter the watercourse and aquifers. The case of *Cambridge Waterworks v Eastern Leather Counties Plc*<sup>35</sup>, in which chemicals percolated into the plaintiff's underground aquifers, exemplifies the practical dangers that improper handling of chemicals and noxious substances can pose to underground water.
- **Chemical attack on building materials and building services:** Contaminants can attack building materials in a variety of ways, including chemical degradation, electrochemical corrosion, and the permeation or softening of plastics or rubber compounds.

---

<sup>34</sup> Ibid.

<sup>35</sup> [1994] 1 All ER 53

- **Fire explosion:** Combustible materials include coal and coke particles, oil, tar, pitch, rubber, plastic, and household waste. Contact with buried power cables or other sources of heat, such as careless disposal of hot ashes or waste materials, or the burning of fires on the ground surface, can cause them to spontaneously combust.
- **Change in climate patterns/environmental impacts:** The impact of land pollution is extremely dangerous and can result in the extinction of ecosystems. When land is polluted, it has an impact on climate patterns, either directly or indirectly. When deforestation occurs, the tree cover is jeopardized. This causes a significant imbalance in the rain cycle. A disrupted rain cycle has a wide-ranging impact. To begin, the green cover has been reduced. Trees and plants help to balance the atmosphere; without them, we are vulnerable to issues such as global warming, the greenhouse effect, irregular rainfall, and flash floods, among others. Air pollution is also caused by land degradation. They become home for pests which in turn transmit disease.<sup>36</sup>
- **Distraction for tourists/Effect on wildlife-** Tourist destinations are rapidly becoming unattractive and unappealing to the eye as a result of the fact that landfills do not look good when the environment is toured. This prevents the government from benefiting from tourism's recurring revenues. Wildlife has also been subjected to this regressive development in recent decades. At the same time, they are in grave danger of losing their natural habitat. Human activity on land has polluted it, forcing these species to migrate further away and adapt to new environments, or perish while attempting to adapt. As a result of a lack of suitable habitat, several species are on the verge of extinction.
- **Health impacts:** Land pollution is extremely important in affecting human health in a variety of ways. When land is contaminated with toxic chemicals, it can cause many health problems such as cancer, defects in the human respiratory system, and other problems because these toxic chemicals can enter the human body through the consumption of fruits and vegetables grown on polluted land, through poisoning of

---

<sup>36</sup> ibid

ground water through the introduction of toxins such as arsenic, lead, and cadmium, which can cause birth defects, damages in the human respiratory system, and more.

Land pollution has resulted in a slew of other issues that have only recently come to light after decades of neglect, including soil pollution, environmental impacts, water contamination, toxic substance ingestion and inhalation, chemical attacks on building materials and substances, dangerous effects, and threats to wildlife's health, and more.

## **2.4 NATURE OF FLOODS.**

According to Merriam-Webster, flood is a rising and overflowing of a body of water especially onto normally a dry land.<sup>37</sup> A flood is a cataclysmic overflow of water from various bodies due to excessive rainfall or other input of water. Flood affects the environment and its inhabitants negatively. Flood in severe cases leads to loss of lives, damage to property, destruction of plant and animals, erosion of the earth surface, and the pollution of the environment among other effects.

### **2.4.1 TYPES OF FLOODS**

According to W.A. Adebayo's article on Environmental Law and flood disaster in Nigeria<sup>38</sup>, different types of floods include:

- **Upstream flood:** They are floods that affect only small localized areas. They are usually caused by sudden, locally intense rainstorms or problems like dam failure.
- **Flash floods** – They are classified as a variety of upstream floods characterized by the rapid rise of the stream stage.
- **Downstream floods:** This is also known as inland flooding. They result from prolonged heavy rains over a broad area or from extensive regional snowmelt. It usually lasts longer than the upstream flood because of excess water.

---

<sup>37</sup> Flood, Merriam Webster accessed at <https://www.merriam-webster.com/dictionary/flood#:~:text=1a%20%3A%20a%20rising%20and,flowing%20in%20of%20the%20tide>

<sup>38</sup> Environmental Law and Flood Disaster in Nigeria: The Imperative of Legal Control by W. A. Adebayo \*Floods International Journal of Education and Research Vol. 2 No. 7 July 2014 <https://www.ijern.com/journal/July-2014/36.pdf>

- **Coastal floods:** This type of flood is caused by the combination of high tide levels, storm surges, and wave action.
- **Fluvial floods:** Fluvial flooding occurs in the flood plains of rivers when the capacity of the water course is exceeded as a result of rainfall or snow and ice melt within catchment areas further upstream.
- **Pluvial floods:** This is surface water flooding caused by rainwater run-off from urban and rural land with low absorbency.

Types of floods may also be classified or named differently, for instance, Bariweniet al. classified some floods as tidal flooding, flooding from sewers, coastal flooding, urban flooding, and areal flooding.<sup>39</sup>

#### 2.4.2 CAUSES OF FLOOD

Generally, the major cause of flood has occurred during the period of heavy rainfall or snowfall. According to Etuonovbe (2011)<sup>40</sup> flooding in Nigeria could be a result of natural causes such as; heavy rainfall, oceans storms, and tidal waves usually along the coast, lack of lakes and silting, and human causes such as; burst water from the main pipes, dam failures, population pressure (such as Lagos City), deforestation (such as North part of Nigeria), trespassing on water storm drains (key cause in Southern Nigeria), unplanned urbanization (in many cities it's the key cause of urban flooding), poor sewerage management, neglecting warnings from hydrological system data which was a major cause of 2012 flooding in Nigeria and lack of flood control measures especially by government. Flooding can also result from poor farming practices that can damage the vegetation cover such as overgrazing and over-cultivation as well as climate change, and storms.

---

<sup>39</sup> Ibrahim M. Magami, S. Yahaya, Kasim Mohammed [Causes and consequences of flooding in Nigeria: a review accessed at https://www.researchgate.net/publication/262562763](https://www.researchgate.net/publication/262562763)

<sup>40</sup> Ibid.

### **2.4.3 CONSEQUENCES OF FLOOD**

Flooding causes major harm to many structural elements in many parts of the country, including bridges, cars, buildings, sewerage systems, roadways, and canals. It also pollutes water supplies and causes water pollution, which leads to unsanitary conditions and the spread of water-borne diseases. Flooding may result in the loss of life in extreme cases. Flooding can also have a significant impact on the economy. Stock, patronage, data, and productivity losses, as well as disruptions to utilities and transportation infrastructure, can have far-reaching consequences. Tourism, farming, and livestock are all potentially affected. Over the last three decades, the repercussions of flooding have grown from significant to life-threatening proportions, resulting in the loss of lives and property. Other negative effects of flooding include environmental pollution, the spread of infections, chemical pollution of soil and water, freshwater ecosystems, and an undersupply of drinking water.

## **2.5 DESERTIFICATION.**

Desertification is seen as the process of land degradation in arid, semi-arid, and dry sub-humid areas, resulting from various factors, including climatic variations and human activities.<sup>41</sup> According to the report of the United Nations Conference on Desertification (UNEP, 2003), desertification is the diminution or destruction of the biological potential of the land and can lead ultimately to desert-like conditions.

### **2.5.1. CAUSES OF DESERTIFICATION**

According to the Arabian Journal of Business and Management Review<sup>42</sup>, Desertification is caused by multiple direct and indirect factors such as<sup>43</sup> over-exploitation and inappropriate land use, climatic factors according to that eventually lead to reduced rainfall and human activities involving technological factors, institutional and policy factors, and economic factors in addition to population pressures, and land-use patterns and practices, poverty-related agricultural practices and other land-use systems, deforestation, high population growth in the region, insecure and unclear land and other natural resources tenure and access rights.

---

<sup>41</sup> United Nation Convention to Combat Desertification

<sup>42</sup> Arabian Journal of Business and Management Review (Nigerian Chapter) Vol. 3, No. 6, 2015 Effect of Desertification on Environmental Management in Northern Nigeria Chibueze Nwokocha accessed at [https://www.arabianjbmr.com/pdfs/NG\\_VOL\\_3\\_6/2.pdf](https://www.arabianjbmr.com/pdfs/NG_VOL_3_6/2.pdf)

### 2.5.2 CONSEQUENCES OF DESERTIFICATION

The consequences of desertification include; habitat destruction and loss of biodiversity and changes in phenology which deal with the period or timing of biological events (such as mating, laying of eggs, etc.) of living organisms in response to climatic and other environmental circumstances.<sup>44</sup> The consequences of desertification could also be classified into the following<sup>45</sup>

- **Health impacts:** Desertification can have an impact on public health by increasing heat waves, increasing the risk of skin cancer, and improving the environmental conditions for diseased conditions and vector-borne diseases, as well as causing the extinction of medicinal plants.
- **Geo-chemical Impacts:** Not only is the biological environment is negatively impacted by desertification; the geological and chemical environments have as well impinged. The geo-chemical effects include: global warming, increased erosion and soil salinization.
- **Hydrological impacts:** Desertification has also had an impact on arid zone hydrology. The water resource becomes a limiting factor, amplifying the effects of desertification, causing the ecosystem to become fragile and at or near its resilience limits. Water supply reduction and over-exploitation of groundwater are major hydrological impacts of desertification. Reduced water supply and over-exploitation of groundwater are two of them.
- **Socio-economic Impacts:** Desertification has severe impacts on the food security, livelihood, economic and socio-cultural life of the affected people. They include; Reduced agricultural productivity and food insecurity, economic loss, and reduced economic growth. Desertification also has economic consequences. It weakens populations and institutions rendering them more vulnerable to global economic

---

<sup>44</sup> O.T. Ebenezer, Drought, desertification and the Nigerian Environment accessed at [https://www.researchgate.net/publication/287146894\\_Drought\\_desertification\\_and\\_the\\_Nigerian\\_environment\\_A\\_review](https://www.researchgate.net/publication/287146894_Drought_desertification_and_the_Nigerian_environment_A_review)

<sup>45</sup> Ibid



factors. The persistence of desertification reduces national food production and furthers the need to rely on foreign imported products. Migration is also a major consequence of desertification causing separation of families as men usually abandon the women and children to seek employment in the urban centres due to unproductive agricultural practices in the rural areas.

## **2.6 SOIL EROSION**

Soil erosion is a naturally occurring and slow process that refers to the loss of the field's topsoil by water and wind or through the conversion of natural vegetation to agricultural land.<sup>46</sup> Soil erosion, like soil compaction, low organic matter, loss of soil structure, poor internal drainage, salinization, and soil acidity issues, is a form of soil degradation. Other types of soil degradation typically contribute to faster soil erosion.

### **2.6.1. TYPES OF SOIL EROSION:**

S.G. Telkar and Neha S. Pote<sup>47</sup> classified soil erosion into natural or accelerated soil erosion. They posited that natural soil erosion occurs when the topsoils are gradually removed under normal conditions of physical, biotic, and hydrological equilibrium while accelerated soil erosion occurs due to disturbance in natural equilibrium by the activity of men and animals through land mismanagement, destruction of forests or overgrazing. They also listed other mechanisms of soil erosion inclusive of water erosion, wind erosion, and biotic erosion. Soil erosion caused by water can be distinguished in different forms which are splash erosion, sheet erosion, rill erosion, gully erosion, ravine erosion, landslides, and stream-bank erosion. Wind erosion takes place normally in arid and semi-arid areas devoid of vegetation, where the wind velocity is high. The wind is responsible for three types of soil movement in the process of wind erosion. They are known as saltation, suspension and surface creep. There are also the Biotic agencies causing soil erosion: these include excessive grazing, deforestation, undesirable forest biota, faulty agricultural methods and mechanical practices by man are important factors that cause soil erosion.<sup>48</sup>

---

<sup>46</sup> Causes, effects and solutions of soil Erosion accessed at <https://www.conserve-energy-future.com/causes-effects-solutions-of-soil-erosion.php>

<sup>47</sup> Soil Erosion: Types and Their Mechanism S.G. Telkar and Neha S. Pote accessed at [https://www.researchgate.net/publication/325300770\\_Soil\\_Erosion\\_Types\\_and\\_Their\\_Mechanism](https://www.researchgate.net/publication/325300770_Soil_Erosion_Types_and_Their_Mechanism)

<sup>48</sup> Ibid

### **2.6.2. EFFECTS OF SOIL EROSION**

Soil erosion has consequences that go beyond the loss of fertile land. It has increased pollution and sedimentation in streams and rivers, clogging these waterways and causing fish and other species to decline. Furthermore, degraded lands are often less capable of retaining water, which can exacerbate flooding.

### **CONCLUSION**

Looking at the factual analysis embedded in this chapter, it can be easily asserted that land pollution is fast becoming a menace and a fundamental threat to human existence and by extension aqua life, wildlife as well as the economies of nations. Nonchalantly unchecked, by far margins the earth will be heading towards an inevitable doomsday as a machination of man's retrogressive treatment of his environment.

### 3.0 CHAPTER THREE

#### 3.1 THE COLONIAL PERIOD (1900–1956)

Nigeria was a British colony beginning in 1861 when the British acquired Lagos. By 1900, the entire country was colonized and remained occupied by the British until Nigeria's independence in 1960. Environmental regulation posed fewer problems to the colonial administration as a result of near absence of industrial and commercial activities during that period. Environmental protection laws passed by the colonial administration were few and restricted to atmospheric pollution, water pollution, public health and winning of minerals.<sup>49</sup> The colonial administrators during this period were more focused on the allocation and exploitation of natural resources and their political and economic interests rather than prioritizing environmental protection and as a result of this no legislations were directed at either protecting the environment or the natives from the polluting effects of the government's economic activities.<sup>50</sup> During this period, local legislation and public health laws had only a minimal bearing on the environment. These include the Criminal Code Law of 1916 and the Public Health Act of 1917 and the regulations imbibed in them were mostly on public health and provided little or no concern for environmental management. Thus, remedies for breach of environmental provisions were sought within the English common law torts of strict liability, negligence, public nuisance, and trespass to land.

##### 3.1.1 STRICT LIABILITY: THE RULE IN RYLANDS V FLETCHER.

Liability is strict in those cases where the defendant is liable for the damage caused by his act irrespective of any fault on his part.<sup>51</sup> The rule in *Rylands V Fletcher*<sup>52</sup> has been invoked in the past to address environmental hazards inflicted on the victims particularly in environmental pollution cases. The rule as developed by Blackburn J is that any person who for his own purposes brings on his land and collects and keeps anything likely to do mischief, if it escapes must keep it as his peril. In this case, In *Rylands v Fletcher*<sup>53</sup>, the defendants employed independent contractors to construct a reservoir on their land. The contractors found disused

---

<sup>49</sup> See Public Health Act 1917, Minerals Act 1958, S247 Criminal Code.

<sup>50</sup> Adeola Ogunba, An Appraisal of The Evolution of Environmental Legislation in Nigeria accessed at <http://lawreview.vermontlaw.edu/wp-content/uploads/2016/07/40VtLRev673-Ogunba.pdf>

<sup>51</sup> Salmond P.314

<sup>52</sup> Ibid.

<sup>53</sup> Ibid.

mines when digging but failed to seal them properly. They filled the reservoir with water. As a result, water flooded through the mineshafts into the plaintiff's mines on the adjoining property. The plaintiff secured a verdict at Liverpool Assizes. The Court of Exchequer Chamber held the defendant liable and the House of Lords affirmed their decision.

**Requirements:** It was decided by Blackburn J, who delivered the judgment of the Court of Exchequer Chamber, and the House of Lords, that to succeed in this tort the claimant must show:

- That the defendant brought, collected or kept something on the land for a particular purpose.<sup>54</sup>
- That the defendant made a “non-natural use” of his land.<sup>55</sup>
- The thing was something likely to do mischief if it escaped.
- The thing did escape and cause damage.<sup>56</sup>
- There is now a further requirement, according to the House of Lords, that harm of the relevant type must have been foreseeable and the defendant is liable for the natural and anticipated consequences. The house of lords in *Cambridge Waterworks V Eastern Railway Company*<sup>57</sup> established that foreseeability of damage of the relevant type is a prerequisite for recovery.

The defences include consent of the plaintiff,<sup>58</sup> default of the plaintiff,<sup>59</sup> act of God,<sup>60</sup> act of stranger,<sup>61</sup> and statutory authority.

### 3.1.2 NEGLIGENCE

---

<sup>54</sup> Rainham Chemicals Works L.T.D. V Belvedere Fish Guano Co (1921) A.C 46, Musgrove V Pandelis (1919) 2 K.B 43, Humphreys V Cousins (1877), Oladeinde V Continental Textile Mills Ltd (1975) 6 (CCHCJ)

<sup>55</sup> Rickards V Lothian (1913) A>C 263 P.279, Read V Lyons (1947) 16 At P. 176., British Celanese L.T.D. V Hunt (1969) 1. W.L.R. 959 At P. 963

<sup>56</sup> Read V Lyons (1947) 16 At P. 176, Umudje V Shell B-P Nigeria L.T.D. (1975) 11 S.C. 155 at p. 160, Hale V Jennings Bros (1938) 1 All E.R. 579

<sup>57</sup> [1994] 2 AC 264.

<sup>58</sup> Carstairs V Taylor (1871) L.R. 6 ex. 217

<sup>59</sup> Dunn V Birmingham Canal Co. (1872) L.R. 7 q.b. 244 at p. 260

<sup>60</sup> Hoare & Co. McAlpine (1923) Ch. 167

<sup>61</sup> Box V Jubb (1879) 4 Ex.D.76

Negligence is the breach of a legal duty to take care which results in damage, undesired by the defendant, to the plaintiffs.<sup>62</sup> There are three elements to the tort of negligence:

- A duty of care owed to the defendant
- Breach of that duty of care
- Damage to the plaintiff resulting from that breach.

**Duty of care:** The ruling in the case of *Donoghue v. Stevenson*<sup>63</sup> established the civil law tort of negligence and obliged businesses to observe a duty of care towards their customers, it was also known as the ‘snail in the bottle case. It was a landmark case in western law. The events of the case took place in Paisley, Scotland in 1928. While attending a store, Ms. May Donoghue was given a bottle of ginger beer, purchased for her by a friend. The bottle was later discovered to contain a decomposing snail. Since the bottle was not made of clear glass, Donoghue consumed most of its contents before she became aware of the snail. She later fell ill and a physician diagnosed her with gastroenteritis.

Donoghue subsequently took legal action against Mr. David Stevenson, the manufacturer of the ginger beer. She lodged a writ in the Court of Sessions, Scotland’s highest civil court, seeking £500 damages. Donoghue could not sue Stevenson for breach of contract because she had not purchased the drink herself. Instead, Donoghue’s lawyers claimed that Stevenson had breached a duty of care to his consumers and caused injury through negligence. At the time, this area of civil law was largely untested. Stevenson’s lawyers challenged Donoghue’s action on the basis that no precedents existed for such a claim. They referred to an earlier action by Donoghue’s lawyer, *Mullen v. AG Barr*<sup>64</sup>, where a dead mouse was found in a bottle of soft drink; judges dismissed this action due to a lack of precedent. Donoghue’s initial action failed but she was granted leave to appeal to the House of Lords (which, at the time, had the judicial authority to hear appellate cases). The leading judgement, delivered by Lord Atkin in 1932, established that Stevenson was responsible for the well-being of individuals who consumed his products, given that they could not be inspected. The case was returned to the original court. Stevenson died before the case was finalized and Donoghue was awarded a reduced amount of damages from his estate. In *Caparo Industries V Dickman*<sup>65</sup>, the HOL laid down three criteria

---

<sup>62</sup> Rogers Winfield & Jolowicz on Tort, (Sweet & Maxwell, London, 1988) 91.

<sup>63</sup> [1932] UKHL 100

<sup>64</sup> [1929] SC 461 (Ct Sess) [Barr] 461

<sup>65</sup> [1990] UKHL 2

for the imposition of a duty of a care of a defendant to wit: foreseeability of damage, proximity of relationship and the fairness, justice and reasonableness or otherwise of imposing a duty. There is no closed list of circumstances in which a duty of care will be held to arise. Thus, in *Hedley Byrne & Co L.T. D*<sup>66</sup>. a new duty of care was recognized to avoid making careless misstatements which might cause financial loss to persons reasonably relying on them and in *Ross v Caunters*<sup>67</sup> it was held that a solicitor in drawing up to a will for a client, owes a duty of care to a proposed beneficiary under the will and is liable in negligence to that beneficiary if, by, careless drafting, the latter loses the intended bequest.

**Breach of that Duty of Care:** For an action in Negligence to succeed, it must be proved that the defendant has breached his duty of care.<sup>68</sup> A defendant would breach a duty if he acted below the standard of a reasonable man. In deciding what a reasonable man would have done in the circumstance<sup>69</sup>, and in assessing the standard of care expected of the defendant the court may take into account the risk factor which has four elements; the Likelihood of Harm,<sup>70</sup> the seriousness of the Injury that is risked<sup>71</sup> the importance of utility of the defendant activity,<sup>72</sup> and the Cost and Practicability of Measures to Avoid the Harm.<sup>73</sup> A reasonable man must also be able to demonstrate basic intelligence<sup>74</sup>, knowledge<sup>75</sup> and skill<sup>76</sup> in his actions.

**Proof of Damages:** the plaintiff must prove that the has suffered damage for which the defendant is liable in law. There are two branches which are causation in fact and remoteness of damage Law. In causation of fact, The Court will apply the “But for” test. If the plaintiff proves that but for the defendant’s negligence, his damage wounding has occurred. He will

---

<sup>66</sup> (1964) A.C. 465

<sup>67</sup> (1979) 3 All E.R. 580

<sup>68</sup> In *White v Basse* (1966) 1 NWLR 26: a motorist was driving along the street on a rainy day. It was proved that he did not speed and was not careless. A five-year-old boy dashed along the road and was knocked down by the car. It was held that the motorist had a duty of care all right along a highway particularly on a raining day not to speed and to be mindful of other road users. But in this particular case, since he had done what was expected of him under the circumstances, he had not breached the duty.

<sup>69</sup> *Alderson B Blyth V Birmingham waterworks co.*

<sup>70</sup> Lord Wrights words in *Northwestern Utilities Ltd v London Guarantee and Accident Co. Ltd* (1936) A 108 at P. 126, *Hilder V Associated Portland Cement Manufacturers Ltd*, (1961) 1 W.L.R. 1434

<sup>71</sup> *Paris V. Stepney Borough Council* (1951) AC 367

<sup>72</sup> *Beim V Goyer* (1965) S.C.R. 638, *Watt V Hertfordshire C.C.* (1954) 2 All E.R. 368

<sup>73</sup> *Latiner v A.E.C. Ltd.* (1952) 2 Q. B. 701

<sup>74</sup> *the Wagon Mound (No.2)* (1967) 1 AC 617, *Whiteford V Hunter* (1950) W N 553. 9.4, *Wooldridge V Sumner* All E.R. 978

<sup>75</sup> *Whiteford V Hunter* (1950) W N 553. 9.4

<sup>76</sup> *Nettleship V Westo* (1971) 2. Q.B. 691

succeed. In *Barnet v Chelsea & Kessington Hospital Management*,<sup>77</sup> the deceased came to hospital complaining of vomiting after taking some tea. The nurse on duty phoned the doctor. But instead of the doctor coming he told the deceased to see his own general practitioner. Late in the day he died, it was found that he died of food poison. In an action by the wife against the hospital for the negligence of the doctor. It was held that the doctor was actually in breach of his duty of care.

**Remoteness of damages:** Causation can only be understood as the man in the street would have understood it.<sup>78</sup> There are two cases which compete against each other with regards to remoteness of damages. The first one is the direct consequences “Best” established by the case of *Re-Polems*<sup>79</sup> which states that the defendant is liable for all the consequences whether foreseeable or not which can be directly traced to his act and the second application is to be found in the case of the wagon mound<sup>80</sup> which rest the “Reasonable foresight test”. The case states that all consequences which could not reasonably be foreseen are too remote whether or not the flow directly from the defendant acts. Other rules the egg-shell skull principle<sup>81</sup>, quantum of damages<sup>82</sup> and the plaintiff’s impecuniosity.<sup>83</sup>

---

<sup>77</sup> (1969) 1 OB 428, See also *Culther v Bedford Motors* (1971) 1 OB 418

<sup>78</sup> Lord Wright in *Munnity of war transport* (1942) AC 127

<sup>79</sup> (1921) 3 KB 560

<sup>80</sup> (1961) AC 388

<sup>81</sup> *Kennedy J, Dulieu v White & Sons* (1901) 2 K.B. 669 at p. 679

<sup>82</sup> *The Arpad* (1934) p.189 at p.202

<sup>83</sup> *The Edison* (1933) A.C. 449 at p. 461

### 3.1.3 NUISANCE

**Private nuisance:** This is an unreasonable and unlawful interference with another person's interest in the private use and enjoyment of his land. A perpetrator of private nuisance may be liable if the conduct is intentional or unintentional. Private nuisance actions for example have abated noxious odours emitted by human feces depot maintained by local authority<sup>84</sup> and poultry maintained by private individual<sup>85</sup>. The rule is often expressed in the Latin maxim, *sic uteri tuo ut alienum non laedas* meaning one should use his property in such manner as not to injure that of another. For an action in private nuisance to be maintained, the plaintiff must have established some form of damage. In *Seismograph Services Ltd V Akporuvo*<sup>86</sup>, the supreme court reversed the judgement of the trial court because there was a conflict of evidence as to whether the building was actually damaged and since damage must be proved in nuisance, the trial court should have revisited the scene.<sup>87</sup> In private nuisance, the injury or interference complained of will not be actionable unless it is sensible in the case of material damage to land or substantial in the case of interference with enjoyment of land and the defendant will not be held liable unless his conduct was unreasonable in the circumstances.<sup>88</sup>

**Public nuisance:** This is committed where a person carries on some harmful activity which affects the general public or a section of the public for example, where the owners of a factory cause or permit fumes and smoke to pollute the atmosphere in the locality or where an obstruction is caused on the public highway. It is a crime actionable by the Attorney-General.<sup>89</sup> it is a tort actionable by an individual plaintiff only where the latter can prove that the defendants conduct has caused him particular damage over and above that suffered by the general public.<sup>90</sup> However, in *Adeniran V interland transport Ltd*<sup>91</sup>, the supreme court held that since the constitution has vested the courts with the powers for the determination of any

---

<sup>84</sup> *Lagos City Council v. Olutimehin* (1969)

<sup>85</sup> *Abiola v. Ijeoma* (1970) 2 All NLR 768

<sup>86</sup> (1974) 6 S.C. 119

<sup>87</sup> Early environmental cases included claims based foul odours emitted from a fat processing facility, noxious odours discharged from a poultry farm and noise and vibration from neighbors' activities. *Tebite v Nigerian Marine co Ltd.* (1971) 1 U.I.L.R. 432.

<sup>88</sup> street, op, cit, 216 et seq.

<sup>89</sup> Penal Code, S192,194, Criminal Code, S 234, *Lawani v West African Portland cement co.* 3.U.I.L.R pt.4 459

<sup>90</sup> *Amos V Shell B.P Nigeria ltd* (1974) 4 E.C.S.L.R., *Oyidiobu V Okeychukwu*, (1937) 7 CCHC 52 at p.56 *Akinyede V Pitan* (1973) 7 CCHC 52 at p.56., *Rose V Miles* (1815) 105 E.R. 773, *Savage V Akinrinmade.*

<sup>91</sup> , (1991) 9. NWLR



questions as to the civil rights and obligations between persons or between government or authority and any person in Nigeria, where the determination of the civil rights and obligations of a person is in issue, any law which imposes conditions is inconsistent with the free and unrestrained exercise of those rights and such law is void to the extent of such inconsistency. The defences to negligence are contributory negligence and *volenti non fit injuria* (no injury is done to one who consents).

### **3.1.4 TRESPASS TO LAND.**

Trespass to land is committed where the defendant without lawful justification enters upon land in the possession of the plaintiff, remains on such land, or directly places or projects any material object upon such land. Acts of trespass include trespass by wrongful entry<sup>92</sup>, trespass by remaining on the land<sup>93</sup>, trespass by placing things on land<sup>94</sup>, and continuing trespass<sup>95</sup>. The remedies include an action brought in court for recovery of the land and physically removing the defendant and his belongings from the land.

In most common law countries, private law as characterized by the torts of nuisance, negligence, the rule in *Rylands V Fletcher* and trespass to land has been traditionally applied to remedy earlier environmental degradation arising from individual and industrial pollution activities.<sup>96</sup> While many of the basic rules are straightforward the relevance of common law to complex environmental problems remains problematic and doubtful. According to Bowman M in “Nuisance, Strict liability and Environmental Hazards<sup>97</sup>” he opined that considerable uncertainty attaches to claims in negligence, nuisance and *Rylands V Fletcher* particularly as they affect the liability of a polluter whose activities cannot be reasonably foreseeable, thereby making these remedies or reliable unreliable and unhelpful to many victims. For example, it used to be the case that the tort of nuisance was originally one of strict liability it is plain that many lawyers still instinctively so regard it. However, the rapid development of the tort of negligence in the present century coupled with the realization of the strong possibility of overlap in the factual situations relating to the two torts has tended to bring about an assimilation of the principles governing the question of a standard of liability in each, so that it is now most unlikely that a defendant will be held liable in nuisance in the absence of any

---

<sup>92</sup> *Entick v Carrington* (1765), 19 St.Tr.1030 at p 1066, *Ashby V White* (1703) 87 E.R. 810, *Dabira v Adelaja* (1973) 11 CCHCJ 97 at p.100,

<sup>93</sup> *Wood V Leadbitter* (1863-60) All E.R. Rep.190, *Balogun V Alakija*, (1963) 2 All N.L.R. 175.

<sup>94</sup> *Simpson v weber* (1925) 133 L.T.46, *Lavender V Betts* (1942) 2 All E.R.72

<sup>95</sup> *Lajide V Oyelaran* (1973) 2. W.S.C.A. 93

<sup>96</sup> *Sturges v Bridgman* (1879) 11. Ch. 852

<sup>97</sup> 1994) E.L 105

fault.<sup>98</sup> At present, any attempt to extract clear principles from the common law relating to environmental problems is an exercise certain to lead to frustration. Although common-law remedies are inadequate inherently to meet the contemporary environmental problems, yes, they are useful in many respects. For example, the award of injunction to restrain future acts of nuisance all the parts of the defendants is still an effective and available remedy to the plaintiff. Again, the unwillingness of many governments to impose appropriate burden on industries, especially in a recession period, and the effectiveness of the industrial lobbyists to resist such measures make it frequently necessary for environmental accident victims to have recourse to pre-existing forms of legal remedy if they are to obtain any redress.<sup>99</sup>

The relevance of tort of nuisance to environmental protection could be seen in the area of the polluter's actions leading to material injury to the property of the plaintiff such as flooding or depositing poisonous substances on crops<sup>100</sup> and sensible personal discomfort such as excessive noise pollution and offensive odours. However, the use of nuisance law to remedy environmental harms from oil exploration activities in Niger-Delta area of Nigeria involves so many disputes. The utility of oil to the economic development of Nigeria outweighs the temporary inconvenience to the communities and damage to their farms. The restriction imposed at common law on the right of action in public nuisance is also inconsistent with the provisions of section 6(6)(b) of the 1999 constitution and to that extent is void. The tort of public nuisance plays only a residual role in the control of pollution which is now subject of statutory control.<sup>101</sup> Even though the law of trespass offers the advantage of action without proof of damage and thereby easy for the plaintiff to obtain an injunction in cases where there is no gathering of evidence to prove damage which may be time-consuming or costly, but the requirement of directness may be too difficult to overcome because where substances are released into the environment, it may cause a number of persons in different ways as such damage is obviously consequential in nature. Again, the plaintiff may find it difficult to establish the requisite intention to pollute since the tort of trespass is an intentional one<sup>102</sup>. Furthermore, it has been said that where trespass is as a result of an accident plaintiff must prove negligence.<sup>103</sup> In relation to environmental matters, negligence remains largely unhelpful

---

<sup>98</sup> *Ibid.* note 4

<sup>99</sup> On the influence of industrial lobbies environmental regulation, see generally Daniel Esty, "toward optimal environmental governance".

<sup>100</sup> *AG V Cole* (1901) 1. Ch.205, *Adams V Ursell* (1913) 1 Ch.296.

<sup>101</sup> Principal statutes include the Public Health Law, Environmental Sanitation Laws, Environmental Pollution Control Law.

<sup>102</sup> Oludayo G. Amokaye, *Principles of Environmental Law in Nigeria*, (2014), p. 86

<sup>103</sup> *River Watters Commissioners V Adamson* (1877) 2 App cas. 743, 767.

first, the extension of liability to environmental pollution has proved problematic especially, where the type of loss which the claimant has suffered is purely economic or psychiatric, or the alleged negligence consists of an omission rather than a positive act. Secondly, the stringent rules governing an action in negligence prove very difficult and intractable to environmental litigants.<sup>104</sup> The remedy of negligence may in certain circumstances be suitable for land degradation issues, particularly, the escape of landfill gas, thus in the Canadian case of *Gerten V Municipality of Metropolitan Toronto*<sup>105</sup>, the plaintiff purchased the property in 1967 and suffered serious injury when an explosion occurred in the same garage. the court held that the defendants knew or ought to have known of the generation of methane gas as a potential danger. Those, aside from decisions of the English courts on negligence, Nigerian courts have not gone far in the protection of environment.

These common law principles, nevertheless, were not aimed at environmental cases and thus do not address any relevant natural resources or their complexities. Comparably, other laws enacted at the time were not intended to protect natural resources.

### **3.2 CONSTITUTIONAL ALLOCATION OF ENVIRONMENTAL POWERS**

In light of the Constitutional allocation of powers in a federation, the division of authority between the Federal, state, and local governments in Nigeria has unavoidable implications for environmental regulation. This is due to the fact that environmental pollution knows no bounds, giving rise to multiple levels of regulation and legal conflicts. To address local issues, states enact their own environmental regulations. clashes could also emerge between a state's interest in its environment and its interest in its economy, as demonstrated in *Attorney-General, Lagos v. Attorney-General of the Federation*<sup>106</sup> & *Or's and Attorney-General of Ogun state and Or's v. Aberuagba*<sup>107</sup>. Several states, for example, have expressed concern about the control of land use and resource development on land under their jurisdiction. The states have also attempted to levy a tax on compensation paid to victims of environmental pollution in their jurisdictions. Constituent states have also decided to respond to environmental hazards generated from industrial activities on their territory in other ways. They have also enacted strict liability statutes for damage caused by oil spills or hazardous discharges, as well as for clean-up costs or personal injury damages caused by hazardous substance releases. States have also imposed

---

<sup>104</sup> Oludayo G. Amokaye, *Principles of Environmental Law in Nigeria*, (2014).

<sup>105</sup> (1973)41 D.L.R

<sup>106</sup> (SC 70/2004) [2004] 19 (10 DECEMBER 2004);

<sup>107</sup> (1985) JELR 44487 (SC)

restrictions on physical development on land within their borders. Several states have expressed concern about the disposal and use of municipal solid and hazardous waste generated within or outside their borders. Nonetheless, the federal government has enacted legislation to regulate intra- and interstate pollution. Can the Federal Government of Nigeria regulate air, water, and land pollution solely? Is it constitutionally permissible for states to exercise environmental authority? If so, what are the limits of the state's authority over environmental pollution? Who is in charge of regulating interstate pollution? Who has the authority to incorporate treaty obligations into municipal laws? The centralization and decentralization theories are the two main theories that explain which level of government is best positioned to address environmental issues. While the centralization theory believes that environmental issues are best regulated at the national level, the latter theory believes that environmental issues are best regulated at the local/regional level.

Section 11 of the Constitution establishes the constitutional foundation for mutual cooperation between the Federal and State Governments in order to manage the nation's environmental problems in an effective and sustainable manner. It allows the federal and state governments to exercise concurrent powers in matters pertaining to the maintenance and security of public safety and order.

### **3.2.1 CONSTITUTIONS POST INDEPENDENCE**

Nigeria has had three functional constitutions since independence: 1960 Independence Constitution (which lasted till 1983), 1979 and the current 1999 Constitution. However, because the country is organized under a federal structure of government, the constitutional allocation of state power in environmental matters remains essentially the same. There is no specific and direct constitutional provision granting the National Assembly legislative authority to regulate environmental pollution. However, the constitutional imperative for the protection of the nation's environment is contained in section 20 under the Fundamental Directive Principles of State Policy, (FODPOSP) Chapter II of the Constitution. It provides that "the State shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria". Also, sections 4(1) and 4(2) of the constitution confer the legislative powers of the Federal Republic of Nigeria on the National Assembly who shall have power to make laws for the peace, order and good government of the federation or any part thereof on any matters included in the Exclusive Legislative List set out in Part 1 of the second

Schedule to the Constitution. In addition, section 12 of the constitution provides that treaties between Nigeria and any other country shall have the force of law if the National Assembly enacts such treaties into law. Thus, by virtue of sections 4 and 12 of the Constitution, the power to enter into and implement the provisions of any International environmental agreements is the exclusive preserve of the Federal government.

The legislative competence of the state government is derived from section 4(7) of the Constitution. It confers on the State House of Assembly the power to make laws for the peace, order and good governance of the State or any part thereof and on matters not exclusively reserved in the Exclusive Legislative List for the Federal government. It has competence to legislate on any matters listed in the Concurrent Legislative List set out in the first column of Part II of the Second Schedule of the Constitution and any other matters with respect to which it is empowered to make laws in accordance with the provisions of the Constitution. If any law enacted by the House of Assembly of a State is inconsistent with any law validly made by the National Assembly, the law made by the National Assembly shall prevail, and that other law shall to the extent of the inconsistency be void. Under the Concurrent Legislative List, the Federal and State Governments have concurrent legislative powers on environmental matters such as industrial, commercial or agricultural development scientific and technological research, and trigonometrically, cadastral and topographical surveys, impliedly, environmental matters not mentioned in the legislative lists, can be assumed to fall within residual matters for state. However, where the subject matter of a treaty was not specifically mentioned by the Exclusive Legislative List, the National Assembly may pass a law to implement that treaty provided such law has been ratified by a majority of all the state's legislative houses in the Federation.

Schedule 4 of the Constitution confers specific functions, most of which have direct impact on environmental regulation on the Local Government. These include the power to establish, maintain and regulate slaughter houses, slaughter slabs, markets, motor parks and public conveniences; construction and maintenance of roads, street-drains and public highways, parks, garden, open spaces, provision and maintenance of public conveniences, sewage and refuse disposal; and control and regulation of out-door Advertising and boarding movement and keeping of pets of all description.

### 3.2.2 JUDICIAL INTERPRETATION

Various affected governmental organs have challenged federal and state efforts to regulate environmental pollution activities in court. Frequently, Nigerian courts have been inundated with diverse arguments on the appropriate scope of the National Assembly's legislative competence under Nigeria's various constitutions. In the context of environmental protection, the recurring issues are: (1) whether the provision of FODPOSP directly or indirectly increases the quantum of legislative power conferred on the National Assembly, and (2) whether the express omission of the word "environment" from both the exclusive and concurrent lists of the Constitution, Environmental protection is a residual matter within the purview of the state's legislative competence; and (3) whether the National Assembly could create federal environmental offenses based on the provisions of Section 20, items 60 (a) and 68 of the Exclusive Legislative List, and item 2 of Part III of the Second Schedule (2). In interpreting constitutional provisions, Nigerian courts take a liberal and purposeful approach rather than a literal interpretative approach. The courts seek to interpret the constitution in order to give effect to the intention of the Constitution's drafters. In general, issues on the exclusive legislative lists are usually reserved for the National Assembly.

However, the exercise of the state government's concurrent power is subject to two major exceptions. First, under Section 4(5) of the Constitution, state laws may be declared null and void if they are inconsistent with federal law. Following that, legislation enacted by the National Assembly on matters within the concurrent competence of both levels of government is typically held to have "covered the field" over state legislation on the same subjects. This principle was applied in the case of *Attorney General of Ogun State v. Aberuagba*<sup>108</sup>, in which the Supreme Court ruled that where the federal and state legislatures have concurrent legislative power over a given subject, If the federal legislature expresses an intention to cover the entire field through its enactment, any state law dealing with that matter would be inconsistent with the federal law dealing with the same matter, and thus void.

In two landmark decisions, *Attorney General Lagos State v. Attorney General of the Federation & Ors.* and *Attorney General Ondo State v. Attorney-General of the Federation*, the Supreme Court held that the responsibility to enforce the provisions of the Fundamental Objectives and

---

<sup>108</sup> (1985) JELR 44487 (SC)

Directive Principles of the 1999 Constitution was vested in the Attorney-General of the Federation. It further rules that the powers of the National Assembly could be broadened to legislate on any of the matters in the Fundamental Objectives and Directive State Policy and a fortiori create federal environmental offenses. The decision in *Attorney General Ondo State v. Attorney-General of the Federation & Ors*<sup>109</sup> dealt with the power of the National Assembly to legislate on physical planning and the interpretation of section 20 of the 1999 Constitution. In the former case, the Supreme Court gave a broad interpretation of the constitutional provisions of sections 4(2) and 15, items 60, 67 and 68 of the Exclusive Legislative List to confer Legislative competence on the National Assembly to regulate corrupt practices and abuse of office in Nigeria by validating the provisions of the Anti-Corruption Act, 2000. The Court also applied the principle of severance or the “blue pen” rule to sever the bad part of the law to save the good part of the Anti-Corruption Law. The Justices of the Court were unanimous in their views that the power of the National Assembly to establish and maintain institutions for the enforcements of the FODPOS will be futile if it is disabled from creating laws to bring them into effect.

In the latter case, the plaintiff challenged the provisions of the Nigerian Urban and Regional Planning Decree that gave wider powers to the Federal government to regulate physical planning, as unconstitutional. The Supreme Court held that the Decree was unconstitutional in so far as it affects physical planning power of the state. The Court while declaring the Decree unconstitutional held that physical planning is a legislative item and a residual matter for the state. The Court further interpreted the provisions of section 20 of the constitution to empower the National Assembly to make relevant laws for the protection of the nation’s environment. That power extends to establishing safety standards, environment standards and other types of requirements relating to the extraction, processing, transportation and ultimate use of products in interstate commerce. Undoubtedly, these decisions have the effect of widening the legislative scope of the federal government over environmental matters.

### **3.3 STATUTORY CONTROLS: THE PERIOD OF PETROLEUM-FOCUSED ENVIRONMENTAL LEGISLATION (1956–EARLY 1970S).**

Nigeria discovered commercial quantities of fossil fuel (crude oil) in the Niger Delta region of Nigeria in 1956 at Oloibiri. Previously centered on agriculture, the nation's economy has shifted

---

<sup>109</sup> (SC.22/1983) [1983] NGSC 38



its attention to petroleum exploration. The discovery ignited a national fixation of petroleum exploitation, with oil exports now being the primary contributor to the economy. As a result, several environmental legislations relating to crude oil were enacted they include:

**3.3.1 OIL PIPELINES ACT:**<sup>110</sup> this is an Act to make provision for licences to be granted for the establishment and maintenance of pipelines incidental and supplementary to oilfields and oil mining and for purposes ancillary to such pipelines. The Minister may, subject to the provisions of the Act grant permits to survey routes for oil pipelines, licences to construct, maintain and operate oil pipelines. Provided that each licence shall be issued in respect of and authorize this construction, maintenance and operation of one pipeline only.<sup>111</sup> Any person may also make an application to the Minister in accordance with the provisions of Act and of any regulations made thereunder for the grant of a permit to survey the route for an oil pipeline for the transport of mineral oil, natural gas, or any product of such oil or such gas to any point of destination to which such person requires such oil, gas or product to be transported for any purpose connected with petroleum trade or operations. The Minister may grant the permit to survey on payment of the fees require of the Act to be paid by the applicant on the submission of the application and on grant of the permit to survey respectively; or (b) for reasons which to him appear sufficient, refuse to grant the permit to survey.<sup>112</sup> A permit to survey entitles the holder, subject to the section 6 of the Act, to enter together with his officers, agents, workmen and other servants and with any necessary equipment or vehicles, on any land upon the route specified in the permit or reasonably close to such route for the following purposes, to survey and take levels of the land, to dig and bore into the soil and subsoil, to cut and remove such trees and other vegetation as may impede the purposes specified in this subsection, to do all other acts necessary to ascertain the suitability of establishment of an oil pipeline or ancillary installations, and shall entitle the holder, with such persons, equipment or vehicles as aforesaid to pass over land adjacent to such route to the extent that such may be necessary or convenient for the purpose of obtaining access to land upon the route specified.<sup>113</sup> The holder of a permit to survey may make an application to the Minister in accordance with the Provisions of the Act and of any regulations made thereunder for the grant of an oil pipeline licence in respect of any oil pipeline the survey of the route for which has been completed by the applicant and the

---

<sup>110</sup> (1990) Cap. (338) Laws of the Federation of Nigeria 1990 Available: <http://www.nigeria-law.org/Oil%20Pipelines%20Act.htm>

<sup>111</sup> Ibid s.3

<sup>112</sup> Ibid s. 4

<sup>113</sup> Ibid s.5



Minister may grant the licence on payment of the fees required by section 31 of this Act to be paid by the applicant on the submission of the application and the grant of the licence respectively; for reasons which the Minister considers sufficient, refuse to grant the licence.<sup>114</sup>

A licence entitles the holder, his officers, agents, workmen servants with any necessary equipment or vehicles, subject to the provisions of sections 14, 15 and 16 of the Act, to enter upon, take possession of or use a strip of land of a width not exceeding two hundred feet or of such other width or widths as may be specified in the licence and upon the specified in the licence, and thereon thereover or thereunder construct, maintain and operate an oil pipeline and ancillary installations.<sup>115</sup>

**3.3.2 OIL IN NAVIGABLE WATERS ACT:**<sup>116</sup> This is an act enacted to implement the terms of the International Convention for the Prevention of Pollution of the Sea by Oil 1954 to 1962 and to make provisions for such prevention in the navigable waters of Nigeria. According to section 1 of the act, if any oil to which the section applies is discharged from a Nigerian ship into a part of the sea which, in relation to that ship, is a prohibited sea area, or if any mixture containing not less than 100 parts of oil to which this section applies is discharged from such a ship into such a part of the sea, the owner or master of the ship shall, subject to the provisions of this Act, be guilty of an offence under this section. The section applies to crude oil, fuel and lubricating oil and to heavy diesel oil, and shall also apply to any other description of oil which may be prescribed under this subsection by order made by the Minister, having regard to the provisions of any subsequent Convention in so far as it relates to the prevention of pollution of the sea by oil, or having regard to the persistent character of oil of that description and the likelihood that it would cause pollution if discharged from a ship into a prohibited sea area. Section 3 states that if any oil or mixture containing oil is discharged into waters to which this section applies from any vessel, or from any place on land, or from any apparatus used for transferring oil from or to any vessel (whether to or from a place on land or to or from another vessel), then subject to the provisions of the act, if the discharge is from a vessel, the owner or master of the vessel, if the discharge is from a place on land, the occupier of that place, if the discharge is from apparatus used for transferring oil from or to a vessel, the person in charge of the apparatus, is guilty of an offence under this section. Section 6 provides for the penalties

---

<sup>114</sup> Ibid s.7

<sup>115</sup> Ibid s.7

<sup>116</sup> (1968) Cap. (337) available at <http://extwprlegs1.fao.org/docs/pdf/nig18389.pdf>

for offences under sections 1, 3 and 5. It provides that a person guilty of an offence under section I, 3 or 5 of this Act shall, on conviction by a High Court or a superior court or on summary conviction by any court of inferior jurisdiction, be liable to a fine: Provided that an offence shall not by virtue of this section be punishable on summary conviction by a court having jurisdiction inferior to that of a High Court by a fine exceeding N2,000. Subject to subsection (2) of the section, no proceedings shall be brought in Nigeria in respect of any offence under this Act except by or with the consent of the Attorney-General of the Federation. In respect of any offence under section 9 or 10 of the Act, no proceedings shall be also brought in Nigeria except by the harbour authority.<sup>117</sup>

**3.3.3 PETROLEUM ACT<sup>118</sup>:** An Act to provide for the exploration of petroleum from the territorial waters and the continental shelf of Nigeria and to vest the ownership of, and all onshore and off-shore revenue from petroleum resources derivable therefrom in the Federal Government and for all other matters incidental thereto. The entire ownership and control of all petroleum in, under or upon any lands to which the section applies shall be vested in the State, the section also applies to all land (including land covered by water) which is in Nigeria, is under the territorial waters of Nigeria, forms part of the continental shelves; or f forms part of the Exclusive Economic Zone of Nigeria.<sup>119</sup> Subject to the Act, the Minister may grant an oil exploration licence, to explore for petroleum; oil prospecting licence, to prospect for petroleum and a lease, to be known as an oil mining lease, to search for, win, work, carry away and dispose of petroleum.<sup>120</sup> A licence or lease under the section may be granted only to a company incorporated in Nigeria under the Companies and Allied Matters Act or any corresponding law.<sup>121</sup> Section 3 states that no refinery shall be constructed or operated in Nigeria without a licence granted by the Minister and licences granted under the section shall be in the prescribed form and shall be subject to the prescribed terms and conditions or, where no form is prescribed or no terms or conditions are prescribed, in such form or subject to such terms and conditions as may be decided or imposed by the Minister. Section 5 provides that if any oil marketing company in pursuance of any agreement or arrangement between it and any other oil marketing company borrows any petroleum products from any other oil marketing company and fails to return to that company an equivalent quantity of the petroleum products borrowed within two

---

<sup>117</sup> Ibid s. 12.

<sup>118</sup> (1969) Cap. (P10) available <https://lawsofnigeria.placng.org/laws/P10.pdf>

<sup>119</sup> Ibid. s.1

<sup>120</sup> Ibid s.2 (1)

<sup>121</sup> Ibid s.2 (2)

weeks of the date on which the petroleum products were borrowed, the first-named oil marketing company shall be guilty of an offence and on conviction shall be liable to a fine of N100 per metric ton of the petroleum products concerned or if any oil marketing company at any time registers only unpumpable stock in respect of petroleum products stored in its depot at Apapa, Lagos, that company shall be guilty of an offence and shall on conviction be liable to a fine of N5, 000 for each day during which only unpumpable stock is registered. Section 13 also states that any person who interferes with or obstructs the holder of a licence or lease granted under section 2 of the Act (or his servants or agents) in the exercise of any rights, power or liberty conferred by the licence or lease shall be guilty of an offence and on conviction shall be liable to a fine not exceeding N200 or to imprisonment for a period not exceeding six months, or to both and any person who constructs or operates a refinery in Nigeria without a licence granted under section 3 of the Act, or in any land to which section 1 of the Act, explores for petroleum without an oil exploration licence, prospects for petroleum without an oil prospecting licence, wins or works petroleum otherwise than in pursuance of a licence or lease granted under this Act or does, without the appropriate licence, any act for which a licence is required under any regulations made under the Act, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding N 2,000. The same section also states that any person who contravenes any provision of an order made under section 6 of the Act shall be guilty of an offence and on conviction shall be liable to a fine not exceeding N 2,000 and where a person is convicted of an offence under subsection (2) or (3) of the section in respect of any petroleum or petroleum products, then, in addition to any penalty imposed under the subsection in question, the convicting court may order the petroleum or petroleum products to be forfeited; or order that person to pay to the Minister the value of the petroleum or petroleum products.

**3.3.4 NIGERIAN MINING CORPORATION ACT:**<sup>122</sup> There is an established body by the name of the Nigerian Mining Corporation which shall be a body corporate with perpetual succession and a common seal.<sup>123</sup> The corporation shall consist of the members mentioned in section 2 of the Decree and the provisions of Schedule 1 to the decree with respect to the powers and procedure of the Corporation and the other matters there mentioned.<sup>124</sup> Section 4 states that subject to the provisions of the Decree and without prejudice to the operation of section 2 of

---

<sup>122</sup> (1972) Cap. (317) accessed at <https://gazettes.africa/archive/ng/1972/ng-government-gazette-supplement-dated-1972-11-02-no-54.pdf>

<sup>123</sup> Ibid. S 1 (1)

<sup>124</sup> Ibid. S 1 (2)

the Nigerian Steel Development Authority Decree 1971, the Corporation shall be charged with the general duty of exploring and prospecting for, working, mining or otherwise acquiring, processing and disposing of minerals of various kinds occurring in Nigeria other than petroleum or coal, smelting, roasting, assaying, amalgamating, refining, or otherwise treating the minerals aforesaid in any manner calculated to render the products and by-products of any such mineral marketable, purchasing the ores or the products and by-products of any of the minerals aforesaid from any source outside Nigeria in any case where they are not available in Nigeria, marketing the ores, products and by-products of any or all of the minerals aforesaid, performing the other functions conferred on it by or pursuant to this Decree. Section 5 states that subject to the other provisions of the decree, the corporation shall have the power to sue and be sued in its corporate name, hold and manage movable and immovable property, construct and maintain roads, railways, sidings, tramways, bridges, reservoirs, watercourses, buildings, plant and machinery and such other works as may be necessary for, or conducive to, the discharge of the functions conferred on it by or under the decree, purchase or otherwise acquire or take over any asset, business, property, privilege, contract, right, obligation and liability of any company, firm or person in furtherance of the business engaged in by the corporation, enter into contracts or partnerships with any company, firm or person which in the opinion of the Corporation will facilitate the discharge of its functions under this decree, train managerial and technical staff for the purpose of the running of its operations, undertake such research as may be necessary for the performance of its functions under the decree, and for that purpose it may be established such number of research laboratories including mineralogical, chemical, mineral dressing and assay laboratories either independently or in partnership with any company, firm or person, as it may determine in each case and exercise such other powers as are necessary or expedient for giving full effect to the provisions of the decree.

**3.3.5 HYDROCARBON OIL REFINERIES ACT:**<sup>125</sup> this is an act to make provision for the licensing and control of the refining of hydrocarbon oils for purposes of excise and for matters connected therewith. Subject to the provisions of the act, no person shall refine any hydrocarbon oils except in a refinery and under a licence issued under the act.<sup>126</sup> An application for a refiner's licence may be made by any person in the prescribed form and manner to the

---

<sup>125</sup> (1965) Cap. (H5) available at <https://lawsofnigeria.placng.org/laws/H5.pdf>

<sup>126</sup> Section 1

Nigerian Customs Service Board in respect of the premises mentioned in that behalf in the application.<sup>127</sup> Section 7 states that under section 1 of the act any person who refines hydrocarbon oils in contravention of the provisions of section 1 of the act shall be guilty of an offence, and shall be liable on summary conviction, to a fine of not less than four hundred naira or more than two thousand naira or to imprisonment for a term of two years, or to both on conviction on indictment, to a fine of an unlimited amount or to imprisonment for a term not exceeding five years, or to both and any hydrocarbon oils in respect of the refining of which a person is convicted of an offence under this section shall be liable to forfeiture.

**3.3.6 EXCLUSIVE ECONOMIC ZONE ACT:**<sup>128</sup> This is an act to delimit the Exclusive Economic Zone of Nigeria being an area extending up to 200 nautical miles seawards from the coasts of Nigeria. Within the Zone, and subject to universally recognized rights of other States (including land-locked States), Nigeria would exercise certain sovereign rights especially in relation to the conservation or exploitation of the natural resources (minerals, living species, etc.) of the seabed, its subsoil and superjacent waters and the right to regulate by law the establishment of artificial structures and installations and marine scientific research, amongst other things. Section 2 provides that without prejudice to the Territorial Waters Act, the Petroleum Act or the Sea Fisheries Act, sovereign and exclusive rights with respect to the exploration and exploitation of the natural resources of the sea bed, subsoil and superjacent waters of the Exclusive Zone shall vest in the Federal Republic of Nigeria and such rights shall be exercisable by the Federal Government or by such Minister or agency as the Government may from time to time designate in that behalf either generally or in any special case and the section shall be subject to the provisions of any treaty to which Nigeria is a party with respect to the exploitation of the living resources of the Exclusive Zone. For the purpose of exploring and exploiting, conserving and managing the natural resources and other activities for the economic exploitation and exploration of the Exclusive Zone, the appropriate authority may establish, or permit the establishment, operation and use by any other person subject to such conditions as may be prescribed, in designated areas such as artificial islands, or installations and structures.<sup>129</sup> The appropriate authority may, for the purpose of protecting any installation in a designated area by order published in the Federal Gazette, prohibit ships, subject to any exceptions provided in the order, from entering without its consent such part of that area as

---

<sup>127</sup> Section 2

<sup>128</sup> (1978) Cap. (116), accessed at <file:///C:/Users/USER/Downloads/nig2026.pdf.pdf>

<sup>129</sup> Ibid S 3

may be specified in such order. If any ship enters any part of a designated area in contravention of an order made under this section, its owner or master shall be liable on conviction to a fine of N5,000 or imprisonment for twelve months or to both unless he proves that the prohibition imposed by the order was not, and would not on reasonable inquiry have become, known to the master.<sup>130</sup> Section 5 states that where a body corporate is guilty of an offence under the Act and the offence is proved to have been committed with the consent or connivance of, or to be attributable to any neglect on the part of, any director, manager, secretary, or other similar officer of the body corporate or of any person who was purporting to act in any such capacity he, as well as the body corporate shall be guilty of the offence and shall be liable to be proceeded against and punished accordingly.

**3.3.7 TERRITORIAL WATERS ACT:**<sup>131</sup> this is an act to determine the limits of the territorial waters of Nigeria and for other matters connected therewith. Section 1 provides that the territorial waters of Nigeria shall for all purposes include every part of the open sea within twelve nautical miles of the coast of Nigeria (measured from low water mark) or of the seaward limits of inland waters and without prejudice to the generality of the foregoing subsection, that subsection shall in particular apply for the purposes of any power of the Federal Government to make, with respect to any matter, laws applying to or to any part of the territorial waters of Nigeria. Any act or omission which is committed within the territorial waters of Nigeria, whether by a citizen of Nigeria or a foreigner; and would, if committed in any part of Nigeria, constitute an offence under the law in force in that part, shall be an offence under that law and the person who committed it may, subject to section 3 of the act, be arrested, tried and punished for it as if he had committed it in that part of Nigeria.<sup>132</sup>

Apart from these laws, other laws created during that time also included the Associated Gas Reinjection Act<sup>133</sup>. Lawmakers appeared to assume, incorrectly, that only the petroleum industry necessitated environmental monitoring. As a result, the policies focused on the different aspects of petroleum exploration activities and aimed to reduce the amount of pollution that resulted from them which resulted in a restricted regulatory system premised solely on financially important natural resources such as crude oil was created.

---

<sup>130</sup> Ibid.

<sup>131</sup> (1967) Cap. (T5) available at file:///C:/Users/USER/Downloads/nig2026.pdf.pdf

<sup>132</sup> Ibid s.2

<sup>133</sup> 1979, now cap. A25, laws of the FRN, 2010 accessed at <https://nlipw.com/associated-gas-re-injection-act/>

### **3.4 ENVIRONMENTAL LEGISLATION DURING THE 1970'S AND THE PRE-1987 CRISIS.**

Environmental regulation extended to the industries with the passage of the Factories Act 1987.<sup>134</sup>

**3.4.0 FACTORIES ACT 1987:** It is an act created to provide for the registration of factories, factory workers and a wider spectrum of workers and other professionals exposed to occupational hazards, but for whom no adequate provisions had been formerly made; to make adequate provisions regarding the safety of workers to which the Act applies and to impose penalties for any breach of its provisions. Section 1 states that the director of factories shall keep a register of factories in which he shall cause to be entered, such particulars in relation to every factory required to be registered under this Act, as he may consider necessary or desirable. Section 2 provides that every person who at the commencement of the act occupies a factory shall, within one month after such commencement, apply for the registration of such factory to the Director of Factories by completing the Application Form prescribed in the First Schedule to the Act. Its provisions also cover: cleanliness,<sup>135</sup> overcrowding<sup>136</sup>, ventilation<sup>137</sup>, lighting<sup>138</sup>, drainage of floors<sup>139</sup>, and sanitary conveniences<sup>140</sup>. Other provisions relate to staff welfare, first aid, and the supply of drinking water. Penalties are also provided in case of breach of these provisions. Other laws concern employee welfare, first aid, and water supply. Sanctions are also provided in the event that these regulations are violated.

As stated earlier, environmental legislation was sectorial in nature but with the passage of time, some important environmental legislations were created they include: the 1985 Endangered Species (Control of International Trade and Traffic) Act; the 1978 Land Use Act, the 1979 Energy Commission of Nigeria Act; the 1985 the Sea Fisheries Act (later repealed by Sea Fisheries Decree 1992); and the 1986 River Basins Development Authorities Act.

---

<sup>134</sup> No 16 of 1987

<sup>135</sup> Ibid S. 7

<sup>136</sup> Ibid S. 8

<sup>137</sup> Ibid S. 9

<sup>138</sup> Ibid S. 10

<sup>139</sup> Ibid S. 11

<sup>140</sup> Ibid S. 12



**3.4.1 LAND USE ACT:**<sup>141</sup> The Land Use Act of 1978, espoused as a Decree during a military administration, it is a law that fundamentally altered the landholding system throughout the country. Prior to British colonial rule, the country had multiple land tenure systems based on various customary laws. Land was acquired through various customary land ownership systems, such as inheritance, conveyance, gift, outright purchase, or long possession.<sup>142</sup> Landowners were only required to obtain the government's permission when transferring rights to aliens.<sup>143</sup> Abuse was rampant in the absence of a proper registration system, and the practice of selling the same piece of land to different buyers was particularly egregious. It is an act to vest all Land comprised in the territory of each state (except land vested in the Federal government or its agencies) solely in the Governor of the State, who would hold such Land in trust for the people and would henceforth be responsible for allocation of land in all urban areas to individuals resident in the State and to organisations for residential, agriculture, commercial and other purposes while similar powers with respect to non-urban areas are conferred on Local Governments. Section 1 provides that all land comprised in the territory of each State in the Federation are hereby vested in the Governor of that State and such land shall be held in trust and administered for the use and common benefit of all Nigerians in accordance with the provisions of the act. Section 5 states that the governor in respect of land, whether or not in an urban areas has the right to grant statutory rights of occupancy to any person for all purposes, to grant easements appurtenant to statutory rights occupancy, to demand rental for any such land granted to any person, to revise the said rental at such intervals as may be specified in the certificate of occupancy; or where no intervals are specified in the certificate or occupancy at any time during the term of the statutory rights of occupancy to impose a penal rent for a breach of any covenant in a certificate of occupancy requiring the holder to develop or effect improvements on the land the subject of the certificate of occupancy and to revise such penal rent as provided in section 19 of the Act, to impose a penal rent for a breach of any condition, express or implied, which precludes the holder of a statutory right of occupancy from alienating the right of or any part thereof by sale, mortgage, transfer or possession, sub-lease or request or otherwise howsoever without the prior consent of the Governor, to waive. Wholly or partially, except as otherwise prescribed; all or any of the covenant or conditions of which a statutory right of occupancy is subject where, owing to special circumstances, compliance

---

<sup>141</sup> 1978 available at <https://admin.theiguides.org/Media/Documents/Land%20Use%20Act.htm>

<sup>142</sup> Bolaji Oseni, Summary of the Land Use Act Decree No. 6 of 1978 in Nigeria, ENV'T NIGERIA, (Nov. 2012, 4:48 AM), <http://nigeriaenvironment.blogspot.com/2012/11/summary-of-land-use-act-decree-no-6-of.html>.

<sup>143</sup> Ibid.



therewith would be impossible or great hardship would be imposed upon the holder, to extend except as otherwise prescribed, the time to the holder of a statutory right of occupancy for performing any of the conditions of the right of occupancy upon such terms and conditions as he may think fit. It is also lawful for the Governor to revoke a right of occupancy for overriding public interest.<sup>144</sup>

**3.4.2 ENDANGERED SPECIES (CONTROL OF INTERNATIONAL TRADE AND TRAFFIC) ACT:**<sup>145</sup> An Act to provide for the conservation and management of Nigeria's wild life and the protection of some of her endangered species in danger of extinction as a result of over-exploitation, as required under certain international treaties to which Nigeria is a signatory. Section 1 states that the hunting or capture of or trade in, the animal species specified in the animal species threatened with extinction) is absolutely prohibited and that no person shall hunt, capture, trade in or otherwise deal with an animal species specified in the Second Schedule to the Act (being animals which, though not necessarily now threatened with extinction, may become so threatened unless trade in respect of such species is controlled) except where he is in possession of a licence issued under this Act. Section 5 provides that any person who, in contravention of the provisions of the act, trades in, or is in possession of or otherwise deals with a specimen specified in the First and Second Schedules to the act, shall be guilty of an offence and liable on conviction for a fine of N1,000 for a first offence and for a second and subsequent offence to imprisonment for one year without the option of a fine; and in respect of any specimen under the Second Schedule to the act, to a fine of N500 for a first offence and for a second or subsequent offence, to imprisonment for six months without the option of a fine.

**3.4.3 ENERGY COMMISSION OF NIGERIA ACT**<sup>146</sup>: it is an act to establish the Energy Commission of Nigeria and to charge it with responsibility for coordinating and general surveillance over the systematic development of the various energy resources of Nigeria. Section 1 provides a body to be known as the Energy Commission of Nigeria (in this Act referred to as "the Commission") which shall have the functions specified in the Act. The Commission consists of the following departments, Energy Information System (including Library and Computer Services), Energy Planning and Analysis (including Energy Efficiency

---

<sup>144</sup> S.28

<sup>145</sup> 1985 available at <https://lawsfnigeria.placng.org/laws/E9.pdf>

<sup>146</sup> 1979

Demand Management and Conservation, Rural Energy, Alternative and New and Renewable Energy Sources), Training and Manpower Development, Administration and Finance; and such other Departments as may be approved by the Commission on the recommendation of the Director-General. Section 5 provides for the functions of the Commission Subject to this Act, the Commission is hereby charged with the responsibility for the strategic planning and co-ordination of national policies in the field of energy in all its ramifications and, without prejudice to the generality of the foregoing, the Commission shall serve as a centre for gathering and dissemination of information relating to national policy in the field of energy development, serve as a centre for solving any inter-related technical problems that may arise in the implementation of any policy relating to the field of energy, advise the Government of the Federation or a State on questions relating to such aspects of energy as the Government of the Federation or a State may, from time to time, refer to it, prepare, after consultation with such agencies of government whose functions relate to the field of energy development or supply as the Commission considers appropriate, periodic master plans for the balanced and coordinated development of energy in Nigeria and such plans shall include, recommendations for the exploitation of new sources of energy as and when considered necessary, such other recommendations to the Government of the Federation relating to its functions under this Act as the Commission may consider to be in the national interest, lay down guidelines on the utilisation of energy types for specific purposes and in a prescribed sequence, inquire into and advise the Government of the Federation or of the State on the adequate funding of the energy sector including research and development, production and distribution, collate, analyse and publish information relating to the field of energy from all sources, where such information is relevant to the discharge of its functions under the act, monitor the performance of the energy sector in the execution of government policies on energy, liaise with all international organisations in energy matters such as the International Atomic Energy Agency, World Energy Conference and other similar organisations, promote training and manpower development in the energy sector and carry out such other activities as are conducive to the discharge of its functions under the act.

**3.4.4 RIVER BASINS DEVELOPMENT AUTHORITIES ACT<sup>147</sup>:** it is an act to repeal the River Basins Development Authorities Act 1979 and establish the River Basins Development Authorities listed under the First Schedule to the Act. Section 4 provides that the functions of

---

<sup>147</sup>1986 available at <http://extwprlegs1.fao.org/docs/pdf/nig18394.pdf>

each Authority shall be to undertake comprehensive development of both surface and underground water resources for multipurpose use with particular emphasis on the provision of irrigation infrastructure and the control of floods and erosion and for watershed management, to construct, operate and maintain dams, dykes, polders, wells, boreholes, irrigation and drainage systems, and other works necessary for the achievement of the Authority's functions and hand over all lands to be cultivated under the irrigation scheme to the farmers, to supply water from the Authority's completed storage schemes to all users for a fee to be determined by the Authority concerned, with the approval of the Minister, to construct, operate and maintain infrastructural services such as roads and bridges linking project sites: provided that such infrastructural services are included and form an integral part of the list of approved projects, to develop and keep up-to-date a comprehensive water resources master plan identifying all water resources requirements in the Authority's area of operation, through adequate collection and collation of water resources, water use, socio-economic and environmental data of the River Basin.

Other laws made at this time with some bearing on the environment: Associated Gas Re-Injection Act,<sup>148</sup> Animal Diseases Control Act<sup>149</sup>, Bees (Import Control and Management) Act<sup>150</sup>; Civil Aviation Act<sup>151</sup> later repealed by Civil Aviation Act No. 6 of 2006, Pest Control of Produce (Special Powers) Act<sup>152</sup>, Agricultural (Control of Importation) Act<sup>153</sup>, Explosives Act<sup>154</sup>; Live Fish (Control of Importation) Act,<sup>155</sup> Quarries Act<sup>156</sup> repealed by Mineral and Mining Act<sup>157</sup>; Food and Drugs Act,<sup>158</sup> Standards Organisation of Nigeria Act<sup>159</sup>, National Water Resources Institute Act<sup>160</sup>, Nigerian Atomic Energy Commission Act.<sup>161</sup>

---

<sup>148</sup> 1979) Cap. (A25); available at <https://lawsofnigeria.placng.org/view2.php?sn=40>

<sup>149</sup> (1988) Cap. (A17) available at <http://extwprlegs1.fao.org/docs/pdf/nig120046.pdf>

<sup>150</sup> (1970), S. 1(1) available at <https://lawcarenigeria.com/bees-import-control-and-management-act/>

<sup>151</sup> (1965) Cap. (51) available at <https://lawsofnigeria.placng.org/laws/C13.pdf>

<sup>152</sup> (1968) Cap. (P9); <https://www.ecolex.org/details/legislation/pest-control-of-produce-special-powers-act-lex-faoc120681/>

<sup>153</sup> (1964) Cap. (A13) <https://lawsofnigeria.placng.org/laws/A13.pdf>

<sup>154</sup> (1967) Cap. (117), S. 1(2)(a)

<sup>155</sup> (1962) Cap. (L14) available at <https://lawcarenigeria.com/live-fish-control-of-importation-act/>

<sup>156</sup> (1990) Cap. (385), available at [https://www.ilo.org/dyn/natlex/natlex4.detail?p\\_lang=en&p\\_isn=56752](https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=56752)

<sup>157</sup> (2004) Cap. (M12) available at <https://lawsofnigeria.placng.org/view2.php?sn=377>

<sup>158</sup> (1976) Cap. (F32); available at <https://lawsofnigeria.placng.org/laws/F32.pdf>

<sup>159</sup> (1970) Cap. (412), S. 14; available at <https://lawsofnigeria.placng.org/laws/S9.pdf>

<sup>160</sup> (1985) Cap. (N83); available at <https://lawsofnigeria.placng.org/view2.php?sn=344>

<sup>161</sup> (1976) Cap. (N91); available at [https://www.ecolex.org/details/legislation/nigerian-atomic-energy-](https://www.ecolex.org/details/legislation/nigerian-atomic-energy-commission-act-lex-faoc120577/)

[commission-act-lex-faoc120577/](https://www.ecolex.org/details/legislation/nigerian-atomic-energy-commission-act-lex-faoc120577/) also EGASPIN available at <https://www.iea.org/policies/8676-environmental-guidelines-and-standards-for-the-petroleum-industry-in-nigeria-egaspin>

### **3.5 THE CONTEMPORARY PERIOD (POST-1987 KOKO CRISIS UNTIL THE PRESENT)**

An environmental disaster in August 1987 prompted efforts to pass meaningful environmental legislation. An Italian company brought numerous tons of toxic industrial waste from Italy and dumped it in Koko, Delta State, in Southern Nigeria. The waste released into the local environment, putting some of the public's inhabitants in danger. Because of the heinous nature of the incident, the Federal Government was forced to respond by enacting the Harmful Waste (Special Criminal Provisions,) Act.

**3.5.1 HARMFUL WASTE (SPECIAL CRIMINAL PROVISIONS,) ACT<sup>162</sup>:** This is an act enacted to prohibit the carrying, depositing and dumping of harmful waste on any land, territorial waters and matters relating thereto. Section 1 provides that notwithstanding the provisions of the Customs, Excise Tariff, (Consolidation) Act, or any other enactment, or law, all activities relating to the purchase, sale, importation, transit, transportation, deposit, storage of harmful wastes are hereby prohibited and declared unlawful and any person who, without lawful authority; carries, deposits, dumps or causes to be carried, deposited or dumped, or is in possession for the purpose of carrying, depositing or dumping, any harmful waste on any land or in any territorial waters or contiguous zone or Exclusive Economic Zone of Nigeria or its inland waterways, transports or causes to be transported or is in possession for the purpose of transporting any harmful waste; or imports or causes to be imported or negotiates for the purpose of importing an harmful waste, sells, offers for sale, buys or otherwise deals in any harmful waste, shall be guilty of a crime under the Act. A person shall also be deemed to have deposited or dumped harmful waste under this Act if he deposits or dumps the harmful waste, whether solid, semi-solid or liquid, in such circumstances, or for such period that he may be deemed to have abandoned it where it is deposited or dumped, to have brought it to the place where it is so deposited or dumped for the purpose of its being disposed of or abandoned whether by him or any other person.<sup>163</sup> The act also provides for the penalty of life imprisonment for this offence, Section 6 provides that any person found guilty of a crime under sections 1 to 5 of the Act shall on conviction be sentenced to imprisonment for life, and in addition any carrier, including aircraft, vehicle, container and any other thing whatsoever used in the transportation or importation of the harmful waste and any land on which the harmful

---

<sup>162</sup> 1988 No 42 available at <http://extwprlegs1.fao.org/docs/pdf/nig18377.pdf>

<sup>163</sup> Ibid. S.1(3)

waste was deposited or dumped, shall be forfeited to and vest in the Federal Government without any further assurance other than the Act.

**3.5.2 FEDERAL ENVIRONMENTAL PROTECTION AGENCY (FEPA) ACT<sup>164</sup>:** The Federal Environmental Protection Agency (FEPA) Act was enacted by the governing Federal Military Government the same year. The Legislation instituted a Federal Environmental Protection Agency, which was given expansive power to control and safeguard environmental resources, and to also develop environmental research technology.<sup>165</sup> The Legislation also authorized the Federation's states to establish their own state environmental protection agencies, primarily to maintain good environmental quality in relation to pollutants under the states' control.<sup>166</sup> States established their own environmental protection agencies in response to the Act's authorization, such as the Lagos State Environmental Protection Agency (LASEPA). Three significant subsidiary regulations issued under this Act explicitly specified standards for the discharge of harmful effluents from industries, the management of solid and hazardous wastes, and pollution abatement in waste-generating industries and facilities. Some of the agencies include National Environmental Protection (Effluent Limitation) Regulations<sup>167</sup>, National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations,<sup>168</sup> National Environmental Protection (Pollution Abatement in Industries and Facilities Generating Wastes)<sup>169</sup>, a fourth regulation, the National Environmental Health Practice Regulations, was promulgated under the authority of section 40 of FEPA. It was mainly intended to control the incidence of communicable diseases through environmental health intervention and to regulate public and private sector collaboration in order to achieve adequate sanitation, public health, and safety and the National Environmental Health Practice Regulations<sup>170</sup>. The FEPA Act empowered the Institution to establish national guidelines, criteria, and standards for water quality, air quality and atmospheric protection, noise levels, gaseous emissions, and effluent limits, as well as to monitor and control dangerous chemicals

---

<sup>164</sup> Federal Environmental Protection Agency Act (1987) Cap. (F10), S. 1, 5, *repealed by* National Environmental Standards and Regulations Enforcement Agency (Establishment) Act No. (25) (2007).

<sup>165</sup> *Ibid.*

<sup>166</sup> *Id.* S. 25. Later in 1989, a Natural Resources Conservation Act 1989 was enacted to complement this law, but was repealed by Federal Environmental Protection (Amendment) Decree No. (59) (1992) §§ 1, 11. In 1999, the Agency's functions were taken over by the Federal Ministry of the Environment.

<sup>167</sup> (1991), S. 3, S. 4

<sup>168</sup> No. 15 (1991) S.1

<sup>169</sup> Regulations No. 9 (1991) S.1.

<sup>170</sup> S.1 No. 21 (2007).

and supervise and ensure compliance. It also gave the Agency extensive statutory authority, including the ability to enter premises without a warrant, inspect and seize property, and arrest offenders who disrupt enforcement officers in the exercise of its functions.

The current National Policy on the Environment was developed by the Federal Environmental Protection Agency in 1989. According to Egunjobi, the Policy is "possibly the most positive achievement Nigeria has ever recorded in the area of environmental management."<sup>72</sup> The overarching goal of the Policy is sustainable development based on proper environmental management in meeting the demands of current and future generations. Its goals are to ensure that all Nigerians have a quality of environment that is suitable for their wellness and well-being; to "promote awareness and promote understanding of the critical linkages between environment and development"; and to "encourage individual and community participation in environmental" protection and improvement efforts.<sup>171</sup> The Federal Ministry of the Environment assumed the operations of the Federal Environmental Protection Agency in 1999. Since then, the scope of environmental legislation has grown highly advanced<sup>172</sup>, indicating a rapidly expanding awareness of the importance of environmental management.

**3.5.3 ENVIRONMENTAL IMPACT ASSESSMENT (EIA) ACT<sup>173</sup>:** The EIA was passed in 1992 which is a generally applicable law requiring prior assessments of the likely environmental impacts of proposed projects. The law requires that projects in both the public and private sectors undergo an initial early evaluation in the event of environmental harm. The objectives of any Environmental Impact Assessment is to establish, before a decision is taken by any person, authority, corporate body or unincorporated body, including the Government of the Federation, State or local government intending to undertake or authorize the undertaking of any activity, those matters that may likely or to a significant extent affect the environment or have an environmental effect on those activities and which

---

<sup>171</sup> OVERVIEW OF THE NATIONAL POLICY ON THE ENVIRONMENT 5, 26, 67 (Ælex Legal Practitioners & Arbitrators, 1999).

<sup>172</sup> So many other environmental and public health laws have been passed since then. The National Agency for Food and Drug Administration and Control Act, which has two amendments and 39 subsidiary regulations, and the Merchant Shipping Act, which has 60 subsidiary legislations, are examples. The sheer volume of regulations demonstrates their significance on the national agenda. The Water Resources Act, which provides the primary framework for water resource management, was also enacted. Its mission is to promote the best possible planning, development, and utilization of Nigeria's water resources. The law states, with qualifications, that the federal government has the right to use and control all surface and groundwater, as well as any watercourse affecting more than one state, for the purposes of water planning and development.

<sup>173</sup> 1992 available at <http://extwprlegs1.fao.org/docs/pdf/nig18378.pdf>

shall first be take into account, to promote the implementation of appropriate policy in all Federal Lands (however acquired) States and local government areas, consistent with all laws and decision- making processes and to encourage the development of procedures for information exchange, notification and consultation between organs and persons when proposed activities are likely to have significant environmental effects on boundary or trans-State or on the environment of bordering town and villages.

**3.5.4 NATIONAL ENVIRONMENTAL STANDARDS AND REGULATIONS ENFORCEMENT AGENCY (ESTABLISHMENT: ACT (NESREA)<sup>174</sup>:** The National Assembly repealed the FEPA Act in July 2007 and established the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act<sup>175</sup>. The Act establishes a new federal agency, the National Environmental Standards and Regulations Enforcement Agency (NESREA), to take the place of the Federal Environmental Protection Agency. NESREA is Nigeria's major federal environmental legislation, and it has been referred to as "a new dawn in environmental compliance and enforcement" due to its efforts to address and protect all aspects of the environment.<sup>176</sup> It is an act that was established to provide for the creation of the national environmental standards and regulations enforcement agency charged with responsibility for the protection and development of the environment in Nigeria and for related matters. The Agency is responsible for the protection and development of the environment, biodiversity conservation and sustainable development of Nigeria's natural resources in general and environmental technology, including coordination and liaison with relevant stakeholders within and outside Nigeria on matters of enforcement of environmental standards, regulations, rules, laws, policies and guidelines. Section 7 of the Act provides for the functions of the agencies which include to enforce compliance with laws, guidelines, policies and standards on environmental matters, coordinate and liaise with stakeholders, within and outside Nigeria, on matters of environmental standards, regulations and enforcement, enforce compliance with the provisions of international agreements, protocols, conventions and treaties on the environment, including climate change, biodiversity,

---

<sup>174</sup> 2007 available at <http://extwprlegs1.fao.org/docs/pdf/nig120569.pdf>

<sup>175</sup> Ibid.

<sup>176</sup> Muhammed Tawfiq Ladan, Review of NESREA Act 2007 and Regulations 2009-2011: A New Dawn in Environmental Compliance and Enforcement in Nigeria, 8 LAW ENV'T & DEV. J. 116, 119, 121 (2012). Available at [https://www.researchgate.net/publication/272290396\\_Review\\_of\\_NESREA\\_Act\\_2007\\_and\\_Regulations\\_2009-2011\\_A\\_New\\_Dawn\\_in\\_Environmental\\_Compliance\\_and\\_Enforcement\\_in\\_Nigeria](https://www.researchgate.net/publication/272290396_Review_of_NESREA_Act_2007_and_Regulations_2009-2011_A_New_Dawn_in_Environmental_Compliance_and_Enforcement_in_Nigeria)



conservation, desertification, forestry, oil and gas, chemicals, hazardous wastes, ozone depletion, marine and wild life, pollution, sanitation and such other environmental agreements as may from time to time come into force, enforce compliance with policies, standards, legislation and guidelines on water quality, environmental health and sanitation, including pollution abatement, enforce compliance with guidelines and legislations on sustainable management of the ecosystem, biodiversity conservation and the development of Nigeria's natural resources, enforce compliance with any legislation on sound chemical management, safe use of pesticides and disposal of spent packages thereof, enforce compliance with regulations on the importation, exportation, production, distribution, storage, sale, use, handling and disposal of hazardous chemicals and waste other than in the oil and gas sector, enforce through compliance monitoring, the environmental regulations and standards on noise, air, land, seas, oceans and other water bodies other than in the oil and gas sector, ensure that environmental projects funded by donor organizations and external support agencies adhered to regulations in environmental safety and protection, enforce environmental control measures through registration, licensing and permitting systems other than in the oil and gas sector, conduct environmental audit and establish data bank on regulatory and enforcement mechanisms of environmental standards other than in the oil and gas sector, create public awareness and provide environmental education on sustainable environmental management, promote private sector compliance with environmental regulations other than in the oil and gas sector and publish general scientific or other data resulting from the performance of its functions, carry out such activities as are necessary or expedient for the performance of it.

The agency also has the power to; purchase or take on lease any interest in land, building or property, build, equip and maintain the offices and premises for the performance of its functions under this Act, lease out any office or premises held by it, which is no longer required, prohibit processes and use of equipment or technology that undermine environmental quality, conduct field follow-up of compliance with set standards and take procedures prescribed by law against any violator, conduct public investigations on pollution and the degradation of natural resources, except investigations on oil spillage, open and operate ordinary and domiciliary accounts for the Agency in recognized banking institutions in Nigeria, borrow by overdraft or otherwise, with the approval of the Minister, such sums as it may require for the performance of its functions under this Act, accept gifts of land, money or other property, upon such terms and conditions, if any as may be specified by the person or organization making the gift, as long as such conditions are consistent with the functions of the Agency, submit for the



approval of the Minister, proposals for the evolution and review of existing guidelines, regulations and standards on environment other Than In The Oil And Gas Sector Including:

- Atmospheric Protection,
- Air Quality,
- Ozone Depleting Substances,
- Noise Control,
- Effluent Limitations,
- Water Quality,
- Waste Management and Environmental Sanitation,
- Erosion and Flood Control,
- Coastal Zone Management,
- Dams and Reservoirs,
- Watershed Management,
- Deforestation and Bush Burning,
- Other Forms of Pollution and Sanitation, and
- Control of Hazardous Substances and Removal Control Methods

Other powers of the agency include to develop environmental monitoring networks, compile and synthesize environmental data from all sectors other than in the oil and gas sector at national and international levels, to undertake, coordinate, utilize and promote the expansion of research, experiments, surveys and studies by public or private agencies, institutions and organizations concerning causes, effects, extent, prevention, reduction and elimination of pollution and such other matters related to environmental protection and natural resources conservation other than in the oil and gas sector as the Agency may, from time to time, determine, enter into agreement and contracts with public or private organizations and individuals to develop, utilize, coordinate and share environmental monitoring programmes, research effects, and basic data on chemical, physical and biological effects of various activities on the environment and other environmental related activities other than in the oil and gas sector, in collaboration with other relevant agencies and with the approval of the Minister, establish programmes for setting standards and regulations for the prevention, reduction and elimination of pollution and other forms of environmental degradation in the nation's air, land, oceans, seas and other water bodies and for restoration and enhancement of the nation's environment and natural resources, collect and make available, through publications and other appropriate means and in co-operation with public or private organizations, basic scientific

data and other information pertaining to environmental standards, charge fees for tests, investigations and other services performed by the Agency, develop and promote such processes, methods, devices and materials as may be useful or incidental in carrying out the purposes and provisions of this Act; and do such other things other than in the oil and gas sector as are necessary for the efficient performance of the functions of the Agency.

### **3.6 OTHER STATUTES RELATING TO FLOOD, DESERTIFICATION AND EROSION.**

**3.6.1 DESERTIFICATION:** The Nigerian government has made efforts to combat environmental issues such as drought and desertification. These initiatives include national policies, a legislative framework, sectoral programs, and collaboration with local and international organizations tasked with combating desertification. The Anglo-French Commission's 1937 directive to the emirate of Northern Nigeria to begin tree planting to stop desert encroachment in the region was probably the country's first desertification combating effort. The Federal Government established the Arid Zone Afforestation Project in 1977 to investigate the problem of desertification and to combat desert encroachment in Nigeria's arid zone. To combat deforestation, this project launched tree planting campaigns and forestry projects. Tree seedlings were produced and distributed, resulting in the establishment of Shelter Belts along the country's northern borders. During Major General Muhammadu Buhari's administration in 1984, Tree Planting Campaigns were used to educate and motivate people about the negative effects of desertification and the need to combat it.

Following the establishment of the Federal Environmental Protection Agency (FEPA), States Environmental Protection Agencies (SEPA) were established in the 36 states, including the Federal Capital, with the mandate to address environmental problems such as desertification (Medugu, 2009). Nigeria signed the Desertification Convention on October 31, 1994, and ratified it on July 8, 1997, making the country a party to the convention as of October 1, 1997. The establishment of the Department of Drought and Desertification Amelioration in the Federal Ministry of Environment in 1999 was intended to strengthen the existing institutional arrangement for more effective coordination of Nigerian government activities related to CCD implementation. Nigeria developed a National Action Plan (NAP) as part of the National Economic and Social Development and Environmental Protection Plan. NAP developed strategies and submitted them to the UNCCD Secretariat in Bonn, Germany, to aid in

environmental education and management, public awareness, poverty alleviation, and the provision of alternative energy sources, among other things. These strategic policies include, National Policy on Environment, National Agricultural Policy, National Energy Policy, National Environmental Action Plan (NEAP) and State Environmental Action Plans (SEAPs), National Tropical Forestry Action Plan, National Conservation Strategy, Natural Resources Conservation Action Plan, National Water Resources Master Plan (1995 to 2020), National Biodiversity Strategy and Action Plan, The Green Agenda of the VISION 2010 Report, National AGENDA 21, National Action Programme to Combat Desertification, National Economic Empowerment and Development Strategy (NEEDS) and National Policy on Women.

**3.6.2 FLOOD:** There is no primary legislation in Nigeria, either at the national or state levels, dealing primarily with flood disasters. In response to the flood disaster, the Federal Government of Nigeria enacted the National Emergency Management Agency (Establishment, etc.) Act<sup>177</sup>. Natural or other disasters are defined in the Act as any disaster caused by a crisis, epidemic, drought, flood, earthquake, storm, train, roads, aircraft, oil spillage, or other accident, as well as mass deportation or repatriation of Nigerians from any other country. The Act generally addresses natural disasters, but there are no specific provisions to address the threat of flooding. The agency's functions include educating and informing the public about disaster prevention and control measures, distributing emergency relief materials to victims of natural or other disasters and assisting in the rehabilitation of the victims where necessary, and liaising with the United Nations Disaster Reduction Organization or other international bodies. Another piece of legislation that deals with the problem of flooding in Nigeria is the River Basin Development Authorities Act, which has already been discussed above.

---

<sup>177</sup> Available at <https://lawsfnigeria.placng.org/view2.php?sn=297>

## **4.0 CHAPTER 4**

### **4.1 CONCLUSION**

In Nigeria, the journey of environmental regulation relating to land pollution started slowly and then became responsive. With the advent of FEPA, Nigeria's environmental regulations have incrementally become more stringent, with institutions for land pollution control and implementation being established. It is refreshing that environmental regulation in Nigeria has evolved in the right path, from a state of developmentally disabled era during colonial administration to its current state of environmental laws and institutions, with centralization of environmental management in environmental protection agencies; nevertheless, this improvement is grossly inadequate when natural resources, such as land, suffer severe degradation. Neither will true progress be made if ecological devastation, specifically land contamination, continues in the country. Despite national and state environmental policies, NESREA and its numerous regulations, and other environmental laws, serious environmental deterioration continues in the form of land pollution. Ensuring these essential resources necessarily requires solid national and local leadership, which is also required for long-term development. Environmental laws and adequate implementation must be intensified to include safety measures for resource quality to prevent degradation, monitoring and revival of polluted or damaged resources, and enforcement, including penalties for nonadherence.

### **4.2 RECOMMENDATIONS**

- The establishment of demarcated waste disposal sites away from residential areas should be welcomed.
- Policies should be instituted to punish those who dispose of waste indiscriminately. When laws are enacted and penalties are imposed on individuals, it will discourage others from contaminating the land.
- Public-private partnerships in sewage treatment should be empowered in order to reduce landfill deposits by recycling waste into resources.
- Increase monitoring of the effects of existing pollution rules, with the goal of determining any deficiencies that may exist in any existing rules and laws, as well as

whether additional international conventions relating to pollution eradication are to be ratified and domesticated into any law in developing countries, particularly Nigerian law.

- The general populace should be sufficiently enlightened about the dangers of land pollution.
- Urban development planners and government agencies should continue to sponsor jingles on radio and television stations discussing why it is not appropriate to build houses in flood zones.
- Hygienic and bush burning regulations should also be strengthened in order to apprehend and prosecute perpetrators.
- A quick regulatory system should be established in order to implement laws that address Nigeria's headlong issues with land pollution.
- Rural farmer schooling as to how to apply fertilizer and other related inputs should be reiterated in order to reduce the health risks involved.
- In order to control land overgrazing, livestock production should be emphasized as the best source of animal protein.
- Utilization of opinion leaders People in positions of authority, religious leaders, and community leaders can speak out against indiscriminate tree felling and encourage their various subjects to plant trees.
- Other remedies include the establishment of shelterbelts, farm forestry, the establishment of woodlots and plantations, the stabilization of sand dunes through tree planting, and the establishment of life hedges.

- Increase penalty fines for non-adherence to laws or regulations enacted for the control of land pollution.
- Reusing materials reduces the need for resource harvesting. Products that cannot be reused can most likely be recycled.
- Using fewer non-biodegradable materials, such as plastic shopping bags. Simply switching to reusable cloth grocery bags can help reduce the need for nonbiodegradable materials.
- Pesticides and insecticides can be reduced when gardening organically. Non-gardeners can contribute by purchasing organic food. Pesticides and fertilizers are being used less in agricultural activities.
- All floodplains, seacoast, natural lakes, and reservoirs (i.e., dams) in Nigeria should be efficiently mapped, monitored, and maintained.
- Efficient Monitoring Stations should be established along each seacoast.

## **BIBLIOGRAPHY**

### **BOOKS**

- Oludayo G. Amokaye, *Principles of Environmental Law*, (2014)

- *National Open University of Nigeria, Law 321, Environmental Law I*
- Rogers Winfield & Jolowicz on Tort, (Sweet & Maxwell, London, 1988) 91.
- Marquita Hill, “*Understanding Environmental Pollution*” accessed at <https://books.google.com.ng/books?id=1yrx2dFNV90C&lpg=PR3&dq=understanding%20environmental%20pollution%20citation&pg=PR3#v=onepage&q&f=false>
- Andrew Farmer, “*Managing Environmental Pollution*”
- Jingling Liu, Lulu Zhang, and Zhijie Liu, “*Environmental Pollution Control*” Book by
- Kodilinye & Aluko, *The Nigerian Law of Torts, Spectrum Law, Series*

## **JOURNALS**

- Abdul Christopher, Ileanwa, Egwuma, Macaulay Atahchegbe, Adejoh Andrew Ekule, *Impact of land pollution on the wellbeing of neighbourhoods in Minna, Nigeria*, Central Asian Journal of Environmental Science and Technology Innovation 3 (2020) 143-149
- Evelyn, M. Ityavyar, Tyav, Terungwa Thomas. *Environmental Pollution in Nigeria: The Need For Awareness Creation For Sustainable Development*. Journal of Research in Forestry, Wildlife And Environment. Volume 4 No.2
- Justus Eronmosele Omijeh, *Strategies for The Control of Desertification in Northern Nigeria*, FUTY Journal of the Environment, Vol. 3 No.1, July 2008
- Chigozie Godson-ibeji, and Jonadab Ubochioma Chikaire, *Consequences of Environmental Pollution on Agricultural Productivity in Developing Countries: A Case of Nigeria* International Journal of Agricultural and Food Research [IJAFR] ISSN 1929-0969 Vol. 5 No. 3, pp. 1-12 (2016)
- IBIMILUA Foyeke Omoboye, *Environmental Challenges in Nigeria: Typology, Spatial Distribution, Repercussions and Way Forward*

- Iisa Muhammed Tijani, Ekpenyong Otu and Ameh Alewo Opuada, *Environmental Pollution Problems in Rural Nigeria: Solutions Through Sustainable Materials*, International Journal of Environmental Engineering and Management., ISSN 2231-1319, Volume 4, Number 3 (2013), pp. 165-170,
- Aliyu Ibrahim Kankara, *Examining Environmental Policies and Laws in Nigeria* accessed at <http://www.ripublication.com/ijeem.htm>
- Olagunju, Temidayo Ebenezer, *Drought, desertification and the Nigerian environment: A review* accessed at <http://www.academicjournals.org/JENE>
- Dr. Bosede Remilekun Adeuti, *Analysis of Environmental Pollution in Developing Countries* American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS) ISSN (Print) 2313-4410, ISSN (Online) 2313-4402 © Global Society of Scientific Research and Researchers <http://asrjetsjournal.org/>

## ARTICLES

- Zerrin Savasan *Pollution, Land* available at <https://www.researchgate.net/publication/318139285>
- Kaberi Murmu, *Land Pollution: Causes, Effects and Remedies*
- Happiness Opeyemi Agboola *Environmental Pollution in Nigeria; Types and Health Consequences. A Review* available at <https://www.researchgate.net/publication/329558496>
- Obafemi, A A; Eludoyin, O S; Akinbosola, B M, *Public Perception of Environmental Pollution in Warri, Nigeria* available at [www.bioline.org.br/ja](http://www.bioline.org.br/ja)
- Ogbodo, Dr. S. Gozie (2009) "*Environmental Protection in Nigeria: Two Decades After the Koko Incident*," Annual Survey of International & Comparative Law: Vol. 15: Iss. 1, Article 2. Available at: <http://digitalcommons.law.ggu.edu/annlsurvey/vol15/iss1/2>



- *Desertification and global change*, M. M. Verstraete<sup>1</sup> & S. A. Schwartz
- Ibrahim M. Magami, S. Yahaya, Kasim Mohammed *Causes and consequences of flooding in Nigeria: a review* accessed at <https://www.researchgate.net/publication/262562763>
- Adaku Jane Echendu (2020) *The impact of flooding on Nigeria's sustainable development goals (SDGs)*, *Ecosystem Health and Sustainability*, 6:1, 1791735, DOI:10.1080/20964129.2020.1791735