# AN EXAMINATION OF THE NESREA ACT 2007 ON WASTE MANAGEMENT IN NIGERIA

BY

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A DISSERTATION SUBMITTED TO THE FACULTY OF LAW, BAYERO UNIVERSITY KANO, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF LAWS (LL.M)

## **DECLARATION**

I hereby declare that this work is the product of my research efforts undertaken under the supervision of Professor Muhammad Isa and has not been presented anywhere for the award of a degree or certificate. All sources have been duly acknowledged

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## CERTIFICATION

This is to certify that the research work for this	dissertation was written by HAJARA UBAM
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#### **ACKNOWLEDGEMENTS**

All praise is due to Allah SWT, the beneficent the merciful. May Allah continue to shower his Bessings and Rahama on his beloved Prophet Muhammad (peace be upon him), the members of his family, his companions and all those who follow their footstep with righteousness until the day of judgement.

I want to first of all express my profound gratitude to Allah for giving me the opportunity to write this dissertation.

Special appreciation and unreserved gratitude goes to my beloved husband Ibrahim Yusuf Esq for his immense support, patience, love, support and understanding throughout the course of my study, without his patience and support this study will not have been accomplished. May Allah S.W.T make you excel in all your endeavors, grant you your heart desires and bless you with Aljannatulfirdaus.

My gratitude goes to my beloved parents for believing in me, praying for me and supporting me during the course of the study. May Allah S.W.T grant you the best of this world and the hereafter, forgive you your shortcomings, bless you with good health and grant you Aljannatulfirdaus.

My special gratitude goes to my supervisor Prof. Muhammad Isa, my internal examiner DrAbubakar Isa and my external examiner Prof. Y.M Yusuf. It has been a remarkable experience working with you. I am indeed appreciative of your kind and constructive criticisms and useful suggestions. Thank you for helping me pull this through sirs. May Allah grant you and your entire family goodness in this world and the hereafter. My gratitude goes to the lecturers in the department who have nurtured me, these include Prof. MammanLawan, Dr B.M Tijjani, and Dr Aisha H. Warshu.

My appreciation goes to my LLM colleagues especially our able class Rep MallamAminuHadi, MuniraSidi Ali, Jamila MetchoKasim, Nurudeen Umar Shehu and IdrisGwio among others thank you for the encouragement and advice throughout the course of this study.

My profound gratitude goes to all my siblings. Thank you for the love you've shown me and for the encouragement throughout the course of this work. I pray that Allah bless and enrich you with his bounties.

I cherish the patience and understanding of my children through the course of this work.

My special gratitude goes to my principal M.A LawanEsq for his fatherly love, May Allah reward you abundantly and grant you your heart desires. And to all my colleagues at M.A Lawan& Co. Maryam Abdullahi Fulani, Asmau Muhammad Suleiman, Jennifer, Ashafa, Jibrin, Jazuli, Abdulgafaru, Khalid, Sani I say a big Thank you

All other persons not mentioned and had contributed in one way or the other towards the success of my academics, I pray Allah SWT reward them abundantly and give me the opportunity to reciprocate all their gestures in good spirit.

## **DEDICATION**

This dissertation is dedicated to my beloved husband Ibrahim Yusuf DakataEsq for his kindness, support, love and encouragement, and to my parents Dr. YahayaBawaUbam and Hajiya Fatima A. Ubam whose generosity, love, kindness and dedication has encourage me immensely. May Allah SWT reward you abundantly and grant you Aljannatulfirdaus.

## LIST OF CASES

Long v Brook (1980) Criminal Law Report (108)

Kent County Council v Queensborough rolling Mill Co. Ltd (1990) 154 JP 442

Inter – Environment Wallonie Asbl v Region Wallonie (1998) All ER (EC) 155

## LIST OF STATUTE

- Constitution of Federal Republic of Nigeria 1999 As Amended
- Federal Environmental Protection Act
- National Environmental Standard Regulation Enforcement Agency (Establishment) Act 2007
- Harmful Waste Special Criminal Provision Act 2004
- Environmental Impact Assessment Act 1991
- Mineral and Mining Act 2007
- Nuclear safety Radiation Protection Act 2004
- Petroleum Act 1969

#### LIST OF TREATIES/CONVENTIONS

- Convention for the Prevention of Marine Pollution by Dumping of Wastes and Other Matters 1972
- Basel Convention on the Trans-boundary movement of Hazardous Waste and Other Matters 1992
- The 1996 Protocol which replace the to the Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter 1972 (London Protocol 1996)
- Stockholm Convention on Persistent Organic Pollutant 2001
- Bamako Convention on the Trans-Boundary Import of Hazardous Waste into Africa
- Rotterdam Convention on the Prior Informed Consent Procedure

#### LIST OF ABBREVIATIONS

• CAP: CHAPTER

• CFRN: CONSTITUTION OF THE FEDERAL REPUBLIC OF NIGERIA

• DPR: DEPARTMENT OF PETROLEUM RESOURCES

• EIA: ENVIRONMENTAL IMPACT ASSESSMENT

• FEPA: FEDERAL ENVIRONMENTAL PROTECTION AGENCY

• LFN: LAWS OF THE FEDERATION OF NIGERIA

• NESREA: NATIONAL ENVIRONMENTAL STANDARD REGULATION AND ENFORCEMENT AGENCY

• NOSDRA: NATIONAL OIL SPILL DETECTION AND RESPONSE AGENCY

• POP: PERSISTENT ORGANIC POLLUTANTS

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#### **ABSTRACT**

Waste is one of the major factors affecting the environment in Nigeria. The inadequate management of wasteto pollution of the environment resulting in flooding and the depletion of the ozone layer and these have affected public health and the quality of the environment. In an effort, to protect public health and protect the environment from continuous degeneration, the National Environmental Standard Regulation Enforcement Agency (establishment) Act (NESREA Act) 2007 was enacted. This study examined the NESREA Act 2007 on waste management with the aim of ascertaining the role the Act plays in ensuring effective waste management in Nigeria. The study employed the qualitative method of doctrinal research using, legislations, decided cases, Legal textbooks, journals, conference papers, seminar papers and internet materials on waste management. The study found that in order to ensure effective waste management, the NESREA Act made it an offence for any person or corporation that fail to manage waste in accordance with the procedures provided by the Act and its regulations. Similarly, the study found that the Act does not allow for civil action by any person who has suffered damages as a result of the failure of another to manage waste under his care. The study recommended that the Act should be amended to allow civil actions by citizens against waste violators. Also Restoration of environment to its original state should be added to the sanctions provided by the Act as this will also serve as a deterrent to waste offenders whose actions have damaged the environment.

#### CHAPTER ONE

#### GENERAL INTRODUCTION

## 1.1 Background to the study

Environmental problems have increased over the decades making environmental protection a subject of international concern. Increase in population and industrialization led to the increase in waste generation in societies and the improper management of the waste contributes to polluting the environment, creating problems like pollution, deforestation, desertification, ozone depletion and loss of biodiversity<sup>1</sup>. Waste in whatever form contribute to polluting the environment with municipal solid waste contributing to land pollution, liquid waste containing waste water, surface runoff and sullage<sup>2</sup> is a source of water pollution and hazardous toxic waste is a source of both air, land and water/marine pollutions.

Increasing environmental problems as a result of pollution of the environment from waste created concerns in the international community on the need to protect the environment from further degradation for the benefit of future generation and for the purpose of safeguarding public health. These growing concerns led to the coming together of nations to put in place some international instruments that will assist in dealing with the problem of waste and ensure its proper management. The first Instrument that came into existence is the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters 1972 also known as London Convention. The Convention was adopted in 1972 and entered into force in

<sup>&</sup>lt;sup>1</sup> The importance of environmental protection, Environmental science Essay published 23<sup>rd</sup> March 2015 at www.ukeessays.com/essays/environmental-sciences/the-importance-of-environmental-protection-environmental-sciences-essay.php. assessed 26/3/2017 10:20am

<sup>&</sup>lt;sup>2</sup>Sullage is all wastewater generated in household or office buildings. sources of waste include sinks, showers, baths, cloth washing machines and dish washer

1975 with the purpose of preventing the indiscriminate dumping of wastes on sea<sup>3</sup>. The convention require state parties to identify and control the sources of some waste material, issue permit for dumping of waste at sea and prohibit the incineration of waste at sea. The London Convention was replaced by the London Protocol of 1996 which further modernize the Convention by prohibiting the dumping of all wastes on the sea. The protocol entered into force on he 24<sup>th</sup> March 2006. In 1973, the International Convention for the Prevention of Pollution from Ships came into existence. The Convention deals with all ships derived pollutants some of which are sewage, garbage and waste oils from ships. The Convention requires ships to have facilities that can manage garbage, sewage and waste oils without contaminating the environment. In 1989, the Basel Convention on the Trans-boundary Movement of Hazardous Waste and other Matters was adopted. The aim of the convention is reducing the movement of hazardous waste between nations. The convention requires states to manage hazardous waste and other waste through waste minimization/ reduction and prohibit the trans-boundary movement of hazardous waste and other waste where the waste will not be managed in an environmentally friendly manner.<sup>4</sup>. The Rotterdam Convention on the Prior Inform Consent (PIC) Procedure<sup>5</sup> for Certain Hazardous Chemicals and Pesticides in International Trade was adopted on the 10<sup>th</sup> of September 1998 with the object of promoting shared responsibility and cooperative effort among parties in international trade of certain hazardous chemical. The convention requires states who are parties in international trade of hazardous chemicals to use and dispose such chemicals in an environmentally sound manner and facilitate among state parties information exchange about the characteristics of chemicals

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<sup>&</sup>lt;sup>3</sup> Simpson .O, Fagbohun .O: "Conventions on Environmental Protection" in Environmental Law and Policy, published by Law Centre, Faculty of Law, Lagos State University (1988), Lagos.

<sup>4</sup>www.basel.int/The Convention/overview/tabid/1271/Default.aspx assessed 27/3/2018 7:45am

<sup>&</sup>lt;sup>5</sup> The Prior Informed Consent Procedure is a mechanism for formally obtaining and disseminating the decisions of importing parties as to whether they wish to receive future shipments of Chemicals in Annex III of the Convention

to ascertain the management option to be adopted when disposing such chemical. The Convention creates binding obligation for the implementation of the P.I.C procedure<sup>6</sup>. In 2001, the Stockholm Convention on Persistent Organic Pollutant<sup>7</sup> (POP) was adopted with the objective of protecting human health and the environment from POP's, the convention requires stockpiles and waste to be identified and managed to reduce or eliminate Persistent Organic pollutants release from such waste. The Convention also require state parties to ensure that stockpiles and waste consisting/ containing or contaminated with persistent organic pollutants are managed safely and in an environmentally sound manner<sup>8</sup>.

The increase importation of waste into Africa brought about the need to create an instrument that will regulate such importations. In 1991 Africa Nations came together and created the Bamako Convention on the Ban of import into Africa and Trans-boundary Movement of Toxic and Hazardous Waste. The objective of the Convention is to prevent the importation of all forms of hazardous waste and other waste into Africa. The convention requires state parties to adopt precautionary measure to ensure proper disposal of hazardous waste and other waste and also encourage state parties to reduce waste generation to a minimum<sup>9</sup>.

Nigeria joined other Nations to show concern on environmental protection by being signatory to the following International Instrument on waste management, which are: the International Convention on the Pollution of the Sea by Dumping of Waste and Other Matters 1972, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade 1998, Stockholm Convention on Persistent Organic Pollutants 2001, and the Bamako Convention on the Ban of Import to Africa and

<sup>&</sup>lt;sup>6</sup>www.pic.int/TheConvention/overview/tabid/1044/language/en-us/default assessed 27th/3/2016 at 7:45am

<sup>&</sup>lt;sup>7</sup> Persistent Organic Pollutants are a set of toxic chemicals that are persistent in the environment and are able to last for several years before breaking down

<sup>&</sup>lt;sup>8</sup> Article 6 Stockholm Convention on Persistent Organic POllutant

<sup>9</sup> Ibid

Trans-boundary Movement of Toxic and Hazardous Waste 1991. Nigeria domesticated the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticide in International Trade 1998 into the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticide in International Trade (Ratification and Enforcement) Act 2005<sup>10</sup>, and the Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and other Matters was domesticated into the Harmful Waste (Special Criminal Provision etc) Act 2004.<sup>11</sup>

In 1988, 3,888 tons of hazardous waste from Italy was illegally dumped at a fishing port in Koko Delta state. This became the first major catalyst which spurred the government into action and the nation into greater environmental awareness. That year two major environmental Legislation were enacted, the Harmful Waste (Special Criminal provisions etc) Act 1988 and the Federal Environmental Protection Agency (FEPA) Act 1988. The Harmful Waste (Special Criminal Provision etc) Act was enacted to ensure that harmful wastes are managed in a designated area. The Act prohibited any person from, carrying, depositing and dumping of hazardous wastes on any land, territorial waters and matters thereto except by persons who has been granted permits and license to transport and dispose such waste in a designated waste disposal facility. It is worthy to note that the Harmful Waste Act limited itself to only harmful waste, it does not cover other categories of waste. The Act indicated the effort of the government to ensure that harmful waste which is the most dangerous form of waste are properly managed and disposed in a designated area approved by the government and failure to do so shall make a person liable 12. The FEPA Act created the Federal Environmental Protection Agency (FEPA) an agency vested with the

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<sup>&</sup>lt;sup>10</sup> CAP R1 LFN 2005

<sup>&</sup>lt;sup>11</sup>Act H1 LFN 2004

<sup>&</sup>lt;sup>12</sup>Nwufo C.C; "Legal framework for the regulation of waste in Nigeria", in International Multi-disciplinary Journal Vol. 4(2) April 2010

responsibility of the overall protection of the environment. FEPA became the sole environmental agency responsible for ensuring compliance with all laws and regulations on the environment. In 1992, the Environmental Impact Assessment Act was enacted, the Act ensures issues on proposed project are environmentally friendly. The Act regulate waste management to ensure that possible Negative Impact of development projects are predicted and addressed<sup>13</sup>.

During the existence of FEPA, FEPA was faced with some challenges with made it difficult for the agency to fulfill its mandate of protecting the environment thereby resulting to weak enforcement of environmental laws by FEPA. These challenges were lack of funds to enable FEPA carry out its functions effectively, unavailability of the necessary equipment and technology to be used to ensure compliance and the lack of skilled and trained manpower. The need to give maximum attention to the increase generation of waste and provide a lasting solution through adequate waste management resulted in the creation of the NESREA Act 2007 which replaced the FEPA Act of 1988.

In 2007, the National Environmental Standard and Regulations Enforcement Agency (NESREA) Act<sup>14</sup> was enacted. The Act established the National Environmental Standard and Regulations Enforcement Agency (NESREA) which became the major federal body responsible for the enforcement of environmental guidelines, standards, regulations, rules, laws and policies on water quality, environmental health and sanitation including pollution abatement<sup>15</sup>. The Act provided measures to be taken to ensure effective waste management, specified the functions of NESREA when enforcing the provisions of the Act spelt out the enforcement mechanisms to be used by NESREA in enforcing compliance with the provisions of the Act on waste management.

13 Ibid

<sup>&</sup>lt;sup>14</sup>Cap. N164 LFN 2010 lexis Nexis Volume 12

<sup>&</sup>lt;sup>15</sup>Section 7(d) NESREA Act

The Act also empowered NESREA to create regulations where necessary for the purpose of ensuring effective enforcement of environmental standards, regulations, guidelines, laws, rules and policies. In fulfillment of these powers, NESREA created 31 Regulations that would help achieve the purpose of the Act, two of these regulations are mainly for the regulation of waste management and they are the National Environmental(Sanitation and waste control) Regulation<sup>16</sup> which seeks to promote environmental friendly practices in sanitation and waste control, , National Environmental (Electrical and Electronic waste) Regulation to regulate the management of E-waste by ensuring that E-waste are managed in an environmentally friendly manner.

It is against this background that this study examines the NESREA Act 2007 on waste management to ascertain how the Act dealt with the problem of waste and ensuring its adequate management in Nigeria. In fulfilling same, this study shall be divided into five chapters with subchapters to provide a better understanding of the work. Chapter one deals with the General introduction of the study, which consists of statement of problem, research method, objectives, scope and literature review. Chapter two is a conceptual discourse on the concept of waste and waste management. Chapter three discusses the Nature and Scope of NESREA by identifying the powers and functions give to NESREA by the NESREA Act, while also looking at other agencies with similar powers as NESREA. Chapter four discusses the role of the NESREA Act on waste management by identifying and analyzing the relevant provisions of the Act on waste management and the mechanism use by NESREA to enforce compliance with these provisions. And chapter five discussed the findings, recommendation and conclusion of this study.

## 1.2 Statement of the problem

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<sup>&</sup>lt;sup>16</sup>S. I. 28 of 2009

Rapid Population growth and industrialization without adequate provision of the necessary infrastructure has led to poor waste management characterized by increase in the generation and poor disposal of wastes and increased urban slums.

Absent of an organized waste management practice has deprived towns and communities from benefiting from a public waste disposal services thereby making authorities and the public resort to dumping of waste on water bodies, land good for agriculture, uncompleted buildings, road sides or rather resort to the burying or burning of these wastes. The burning or burying of waste endangers the environment because waste when burnt releases Greenhouse gases such as nitrous oxide, methane, carbon dioxide including dioxins and furans whose impacts are weather related mortalities, infectious diseases, air quality related respiratory illnesses, low crop yield, deforestation, erosion of beaches, loss of biodiversity and loss of natural habitat.

The improper management of these waste creates refuse heaps which are mostly left unattended to and waste when left unattended to for a long time constitute health hazard, causes offensive odor, pollutes underground water, causes flooding and decrease environmental aesthetics and quality.

For the purpose of protecting the environment and ensuring adequate waste management, the NESREA Act 2007 was enacted, to protect and preserve the Nigerian environment. The Act made provisions that will deal with the problem of waste, and empowered NESREA to enforce compliance with this provisions. It is in consideration of these problems that this study shall examine the NESREA Act on the management of waste in Nigeria and determine the measures taken by the Act to ensure proper waste management in Nigeria.

#### 1.3 Research Questions

The formulated research questions are:-

- i. How has the Act ensure effective waste management in Nigeria?
- ii. How does NESREA enforce compliance with the provisions of the Act on Waste Management?
- iii. Has the Act effectively ensure adequate waste management in Nigeria

## 1.4 Aim and Objectives

The aim of the study is to examine the Act on waste management in Nigeria and to achieve the following objectives

- To ascertain how the NESREA Act provided for the effective waste management in Nigeria
- b. To identify how NESREA enforce compliance with the provision of the Act on waste management
- c. To ascertain if the Act has effectively ensured adequate waste management in Nigeria

## 1.5Significance of the Study

The study shall provide knowledge to the general public on what the NESREA Act 2007 has done to ensure effective waste management in Nigeria. The study if carried out shall create public awareness and encourage the public, industries and private organization on the need to manage waste when generated, and to cooperate with the government to fight the problem of waste from the source of generation through effective waste management

#### 1.6 **Methodology**

Using the doctrinal method of research, the study employs the qualitative methodology by examining the NESREA Act 2007 on waste management to ascertain how the Act ensured adequate waste management in Nigeria. The study largely depended on the primary and secondary sources of information. The primary sources are the NESREA Act and other Acts on waste management including decided cases on waste management. While the secondary sources are textbooks, journals, seminars, workshop or conference papers, newsletters, news magazines and electronic materials.

## 1.7 Scope and Limitation of the study

The study shall focus on examining the NESREA Act and its regulations on waste management in Nigeria. However, reference is made to other local legislations and international instrument on waste management.

The study will be limited to all laws, materials, and conventions dealing with the regulation and management of waste in Nigeria.

#### 1.8 Literature Review

Several literature have been written on the NESREA Act 2007, these literatures are reviewed to identify its relevance or otherwise to this study. However not much has been written on the NESREA Act on waste management, while most of the existing literature focus on discussing the NESREA Act as it relate to sustainable development of the environment others focused more on discussing hazardous or toxic waste and its management under the Act without looking at the management of the other categories of waste.

Amokaye<sup>17</sup> in his book gave a detailed explanation of the different categories of waste, different disposal methods and the different waste management methods to be used when dealing with waste. The categories of waste he identified are the hazardous, healthcare, radioactive, solid and liquid waste and their impact on public health. He identified the method of waste disposal as dumping, sanitary landfill, composting, incineration and recycling. In looking at the statutory controls of waste in Nigeria, he gave a brief summary of the requirement of the regulation on waste management among which he stated that under the National Environmental sanitation and waste control regulation every owner or occupier of premises or facility is under the legal duty to maintain general cleanliness and sanitation within his premises as a way of ensuring general cleanliness and proper sanitation. The focus of his work is on waste where he gave an in-depth explanation of waste and the different categories of waste, his book did not give sufficient explanation on how the NESREA Act regulates these wastes.

**Oghogho**<sup>18</sup>in herArticle discussed the powers of environmental agencies particular NESREA to enforce compliance with waste. The focus of her work is on the power of NESREA and other environmental agencies to enforce compliance with environmental laws on environmental protection. Her Article identified these powers of NESREA, power to arrest, search, and detain an environmental offender. The entirety of the work is focused on enforcing compliance with the laws on Environmental protection particularly the NESREA Act.

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and Climate Change. 2016 at www. ICLG.co.uk

<sup>&</sup>lt;sup>17</sup>Amokaye O.G; Environmental Law and Practice in Nigeria (2<sup>nd</sup> edition), University of Lagos Press Akoka Lagos,2014. <sup>18</sup>Oghogho M, "Environmental Policy and it's enforcement "In International Comparative legal guide to Environment

Ladan<sup>19</sup> in his book gave a review of the NESREA Act where he explained that the NESREA Act and Regulations constitute a new dawn in environmental protection and development because in purpose and contents, the Act and its regulation aim at addressing the preponderance of obsolete Environmental Regulations, Standards and Mechanism. The book gave a general insight of NESREA Act, identified the functions and powers of NESREA and all the Regulations created by NESREA for environmental protection. The work focus more on reviewing the whole provisions of the Act on the environment unlike this study which only look at the provisions of the Act regulating waste.

Fagbohun<sup>20</sup> in his paper identified the regulatory approach on E-waste in Nigeria and identified the challenges of e-waste management in Nigeria as; lack of national regulation regarding the import rules for used electrical and electronic equipment, relaxed/weak/insufficient enforcement of existing related laws, lack of awareness of risk potential/ harmful effects associated with e-waste coupled with lack of technical capacity for environmentally sound management, poor corporate social responsibility, lack of inadequate infrastructure for collection recycling and recovery, poor interface of the informal sector with the regulatory authority and lack of economic alternative to activities carried out by the informal sector. The paper focused only on the regulatory approach of electronic waste without discussing the regulatory approach on the other wastes giving rise to the need for this research.

<sup>&</sup>lt;sup>19</sup>Ladan M.T; Natural Resources and Environmental Law and policies for sustainable development in Nigeria. Ahmadu Bello University Press Ltd, Zaria, Nigeria, 2014.

<sup>&</sup>lt;sup>20</sup>Fagbohun O; "An Overview of Nigeria's Regulatory Approach", presentation made at the 2-day 1<sup>st</sup>Eko E waste summit on the Regulation and Management of e-waste in Nigeria 24<sup>th</sup>-29<sup>th</sup> February 2011.

LADAN<sup>21</sup> in his paper discussed the role of environmental court in environmental sanitation and waste management. In doing so he identified the duties and obligations of individuals and corporations during waste management, the waste management offences under the Act. He discussed the need for environmental court to ensure compliance with the rule of law for effective environmental protection. He stressed that environmental management cannot be achieved without effective environmental governance including the enforcement of environmental laws at both national and local levels. He further stated that environmental enforcement is one of the key elements of environmental governance which seeks to ensure that ambitious goals of our environmental status are realized. This work is relevant to this study as it provide an insight on how the court could help achieve sustainable environment through enforcement of the relevant provisions of the Act on waste management in Nigeria.

Patricia and Alan<sup>22</sup>in their book gave a discourse of the Basic document on international environmental law. The content of each documents were elaborated and one of such documents is the Basel convention on the trans-boundary movement of hazardous waste and other matters. The focus of the book is to analyze all documents regulating the activities of man on the environment. This book is relevant to this study as it provides us with the relevant international instrument for environmental protection.

**Anwuli**<sup>23</sup> in her article looked at the environmental regulations regulating offshore waste management in Nigeria. She gave a detailed explanation of waste generated in the oil and Gas

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<sup>&</sup>lt;sup>21</sup>Ladan M.T; "Legal issues in environmental sanitation and waste management in Nigeria:- role of environmental court " a paper presented at a 3 day national seminar for magistrate on environmental and sanitation laws in Nigeria 5<sup>th</sup>-8thoctober 2015

<sup>&</sup>lt;sup>22</sup> Patricia W.B, and Alan .B: Basic document on International Law and the Environment, Clarendon Press Oxford 1995

<sup>&</sup>lt;sup>23</sup>Anwuli I.F; environmental Regulation of offshore (E&P) waste management in Nigeria, How effective, journal of law environment and development Vol 7(2) 2011

sector and how it is required to be managed. She stated that waste generated during the oil and gas exploration and production are referred to as exploration and production waste which usually contain oil hydro carbons, complex chemical compound and metal of varying toxicity and as a result require effective legislative mechanism to ensure that these activities are regulated. The focus of this work is on waste management in offshore oil and gas exploration and production. It did not look at waste management in the other aspects of the environment i.e waste management in the non-oil and gas sector.

Ijaiya and Joseph<sup>24</sup> in their Article were of the view that inadequate policies for curbing and monitoring relationship between environmental management and sustainable development has lead to poor enforcement of environmental protection legislations in Nigeria. Stating that most of the enforcement strategies are poor and not being implemented. For instance the mechanism for collection and management of environmental statistics of facilities and service providers, including waste transporters, waste vendors, landfill areas, companies effluent emission data carbon foot prints, sewage treatment plant and other recycling plant are neither developed nor implemented. The focus of this work is on environmental law enforcement in Nigeria i.e the work looks at the enforcement powers of NESREA under the Act as oppose to this study which look at both waste management under the Act and the power of NESREA to enforce this waste management provisions.

Alice and Cairo<sup>25</sup> in their book gave a summary of international environmental cases in national courts. The book compiled the decisions of national court on the different problems

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<sup>&</sup>lt;sup>24</sup>ljaiya H and Joseph O.T; "Rethinking environmental law enforcement in Nigeria" in Beijing Law Review Vol 5 306-

<sup>&</sup>lt;sup>25</sup> Alice. P, Cairo A.R; International environmental Law report, International environmental law in national court Vol. 4, Cambridge University Press

affecting environment within nations to serve as a guide to other nations when trying to deal with an environmental problem affecting a state. This book did not provide a single case from the Nigerian courts on environmental matters.

Amaka and Ted <sup>26</sup>in their article analyzed the efficacy or otherwise of the extant Nigerian statutory framework vis-a vis that of some jurisdictions with respect to the control of oil and gas pollution. The article made a case for an effective and adequate comprehensive body of legislation to deal with oil and gas pollution as against the present situation of fragmented and often conflicting laws that are unable to deal with the problem in Nigeria. The work only restrict itself to the laws regulating pollution in the oil and gas sector, and because the NESREA Act does not regulate pollution in the oil and Gas sector it does not form part of the work's highlighted legal framework for environmental protection in the oil and Gas sector.

Ezeigbe and Meschach<sup>27</sup> in their work gave a critical review of environmental laws protecting the environment form pollution caused by the manufacturing industries. Among such laws, they looked at the NESREA Act, the Regulations created by NESREA to regulate pollution and from manufacturing industries. They concentrated their work on the manufacturing industry and the role of NESREA in regulating pollution activities in the manufacturing industry, no reference was made to waste in other aspect of the environment for instance domestic waste, institutional waste e.t.c.

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<sup>&</sup>lt;sup>26</sup>Amaka G.E and TedC.E,: "A Survey of the Legal framework for the control of oil and gas pollution from selected countries" in the journal of law , policy and Globalisationvol 31 2014

<sup>&</sup>lt;sup>27</sup>Ezeigbe K.K and Meschach N: " A critical review of the of law of environmental protection for manufacturing industries in Nigeria" in international journal of business and law research vol. 3(3) 2015

Anukam L<sup>28</sup> in his work explained the intervention of the Act on solid waste management in Nigeria, and the progress made by the Act on solid waste management in Nigeria. He stated that government intervention on solid waste management led to the creation of the NESREA Act and he enumerated the power and functions of NESREA and the role of NESREA on solid waste management. Anukam in discussing the Act focused solely on solid waste management without looking at the management of other forms of waste under the Act.

Awogbade<sup>29</sup> in his paper discussed the relationship between the Judiciary and law enforcement agencies in environmental protection. He stated that Environmental issues are cross sectoral, therefore closer relationships need to be forged with NESREA and other agencies particularly the Judiciary. The judiciary as stake holder will settle environmental dispute, uphold the rule of law and interpret and adjudicate on matters of environmental protection. This will bring integrity and certainty to the process of adjudication of environmental matters and help simulate environmental responsibility and accountability. This paper is relevant to this study as it looks at the need for collaboration between NESREA and other enforcement agencies during environmental protection.

**Emmanuel and Helen**<sup>30</sup>in their work stated the need for NESREA and other environmental agency to adopt economic base approach in protecting the environment to enhance the effectiveness of these environmental laws in environmental protection. He emphasized on the need for environmental accounting, environmental pollution tax, polluter pay principle and tax relief incentive to be adopted to make environmental laws more effective in environmental

<sup>&</sup>lt;sup>28</sup>Anukam .L; "Enforcement of Environmental law and Waste Management Industry Development" A paper Presented at the WAMASON 2<sup>nd</sup> International Summit Lagos 22<sup>nd</sup>-24<sup>th</sup> April 2015.

<sup>&</sup>lt;sup>29</sup>Awogbade .S; "Engaging the Judiciary and Law Enforcement Agencies in Environmental Compliance" A paper presented at the 8<sup>th</sup> National Stakeholders Forum, 4<sup>th</sup>-5<sup>th</sup> November 2015.

<sup>&</sup>lt;sup>30</sup> Emmanuel A and Helen A: " Economic Based approach to environmental protection as a panacea to effective environmental management in Nigeria" in Journal of Law, policy and Globalisation, Vol. 42 2015

protection. Their work did not look at the NESREA Act on waste management, the focus of their work is on the effectiveness of the NESREA Act and other environmental legislation on environmental protection.

Magaret<sup>31</sup> in looking at the legal developments in Nigeria stated that the oil and gas sector is critical to the nation's economy at the same time notoriously environmentally destructive. She further stated that the exclusion of the Oil and Gas sector in the powers of NESREA is a restriction on the powers of NESREA, the effect of which has resulted in the continuous degeneration of the Nigerian Environment. This worked is basically on the NESREA Act on the light of its exclusion to regulate activities in the oil and gas sector, this work is not relevant to this study as it only looks at the exclusion of NESREA in the oil and Gas Industry.

Chinwe<sup>32</sup> is of the view that It is hardly arguable that environmental policies and legislation no matter how beautifully conceived towards the protection of the Nigerian environment will at its best be an exercise in futility and of little significance unless and until they are accompanied by effective means of enforcement and compliance. She identified the legal framework for the regulation of waste in Nigeria as the NESREA Act 2007, the Harmful waste special criminal provision Act, Mineral and Mining Act 2007 and the Environmental Impact Assessment Act 1992. She further explained that the relevance of environmental legislation to the economic social and political well being and development of Nigeria cannot be emphasized. This work is relevant to this study as it is identifies the legal framework on the

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<sup>&</sup>lt;sup>31</sup> Margaret O.F; "Legal Development 2009-2011 in Nigeria" in IUCN Academy of Environmental Law e-journal Vol.1 2012

<sup>&</sup>lt;sup>32</sup>Chinwe .N.C; "Legal Framework for the Regulation of Waste in Nigeria", in International Multi-disciplinary Journal, Ethiopia Vol 4(2) April 2010.

control of waste in Nigeria even though it does not give an in-depth explanation of how these legislation regulate waste in Nigeria.

Miranda<sup>33</sup>in her paper discussed the laws regulating E- waste in Nigeria and identified the NESREA Act and the regulation controlling E-waste in Nigeria. The paper described the current status of E- waste management and the Progress made in the regulation of E-waste in Nigeria. This work did not make reference to other categories of waste and the effort of NESREA to regulate these other wastes. The focused of the work is on the regulation of E-waste in Nigeria.

Rufus<sup>34</sup> in his article examined the judicial attitude to environmental litigation and access to environmental Justice in Nigeria. He maintained that environmental legislations impose strict liabilities or provide for compensation rather than damages. He went ahead to state that NESREA being the Major environmental Legislation in Nigeria is criminal in nature being that it only provides for imprisonment or payment of fine by polluters. This work focused on the general liability of environmental offenders under the NESREA Act and whether such liability is effective to deter environmental offender. The work did not look at waste offenders under the Act and their liabilities.

**Achor et al.**<sup>35</sup> In their article emphasized the need for stakeholder relation with NESREA on waste management stating that shareholder relation approach goes beyond awareness creation but deeply initiate strategies that aid in understanding levels of personal commitment of each

<sup>&</sup>lt;sup>33</sup> Miranda A: National Environmental Standard Rugulation Enforcement Agency (NESREA) A presentation made at the third annual meeting of the global E-waste management Network San Francisco, U.S.A, 15<sup>th</sup> -19<sup>th</sup> July 2013.

<sup>&</sup>lt;sup>34</sup> Rufus A. M:" Judicial attitude to environmental litigation and access to environmental justice in Nigeria: Lessons formKiobel" in AfeBabablola University Journal of Sustainable Development Law and Policy Vol 2(1) 2013

<sup>&</sup>lt;sup>35</sup>Achor P.N, Ehikwe A.A, and Nwafor .A.U; "Curbing/mitigating indiscriminate waste dumping through effective stakeholder relation" in International Journal of Science and Research Vol. 3(4) April 2014.

shareholder group in the waste control program or projects without necessarily applying force. Stakeholder relation recognize waste control/management as a project and for the project to succeed, every stakeholder has a role to play, and those who coordinate the waste control project must identify the stakeholders, engage them appropriately so that they can willingly participate and take responsibility. The focus of this work is the need for the creation of relationship between NESREA and stakeholders for effective waste management. The work did not look at the content of the Act on waste management.

**Adeyemi**<sup>36</sup> in her article discussed solid waste management using Abuja as an example. She viewed solid waste as consisting mostly of human and animal excrement or feces and the disposal solid waste meant how individuals, societies or organization stow away human and animal excrement. This view is contrary to the general view of scholars on solid waste who view solid waste as waste consisting of papers, scrap materials, leather, e.t.c.

Adewole<sup>37</sup> in his article classified waste in terms of three major sources of generators: the residential, commercial and industrial stating that sometimes institutional sources are separated from commercial sources and thus a fourth source is referred to as the institutional source. He explained that air pollution which includes odor, noise, smoke and dust, Waste pollution: pollution from disposal site via flooding because of blocked drains and land degradation are the Environmental effect of improper waste management. The work focus only waste without looking at the legal framework that regulate waste in Nigeria.

<sup>&</sup>lt;sup>36</sup>Adeyemi O.B; "Waste management in Contemporary Nigeria: The Abuja Example", in International Journal of Politics and Good Governance Vol.2.2 2011 p5

<sup>&</sup>lt;sup>37</sup>Adewale A.T; "Waste Management towards sustainable development in Nigeria: A case study of Lagos State", in International NGO journal Vol.4(4) pp 173-179 April 2009

**Uwadiegwu and Chuckwu**<sup>38</sup> in their article were of the view that effective urban waste management demand multi-pronged approach in which all segments of the society must be brought together and made to function together. They recommended that solid waste management in Nigeria should become the concern of everybody, and agency charged with waste management must be sufficiently supported by way of adequate funding. The work listed some waste management agencies and spelt out recommendation to be used by these waste management agencies, without including NESREA agencies to benefit from these recommendations.

Samson and Oluwatoyin<sup>39</sup> in there article explained that recycling waste reduces the need for Raw Materials, Incineration Converts energy stored within the material to useful energy, reducing fossil fuel requirement and so saving on carbon dioxide emissions and other harmful pollutants. The attitudinal practice of the public to waste as a material to be thrown away, limited knowledge and understanding of the operational and managerial maintenance aspect of waste management, inadequate legal and institutional/ administrative frame work for sound management of waste were stated as the challenge of solid waste management in Nigeria. The work look at the challenges in waste management without making reference to challenges faced by NESREA in enforcing compliance with waste management laws.

Chukuemeka et al.<sup>40</sup> in their article stressed on the need for environmental education on waste management stating that Environmental education among the people would generate

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<sup>&</sup>lt;sup>38</sup>Uwadiegwu B.O and Chuckwu K.E; "Strategies for effective urban solid waste management in Nigeria", in European Scientific Journal Vol. 9 No.8 March 2013

<sup>&</sup>lt;sup>39</sup>Samson A.O and

Oluwatoyin O.R; "challenges of waste management and climate change in Nigeria: Lagos state metropolis experience", Journal of Scientific Research Vol. 7 No.1 2012

<sup>&</sup>lt;sup>40</sup>Chukuemeka .E, Ugwu .J and Igwegbe .D; "Management and Development Implications of Solid Waste Management in Nigeria" , in Asian Journal of Business Management Vol. 4(4) 2012 pp 352-358

environmental concern which could lead to the formation of group concerned with how to protect the potentials of the environment and minimize the hazards of environmental pollution and degradation. Without proper education or orientation and public awareness at all levels of the society it will be difficult to manage solid waste. They recommended that detailed waste management topics should be included in primary, secondary and tertiary school curriculum. The focus of this work is on environmental education among the populace on the need for environmental protection, the work did not deem it necessary to educate the public on how to manage waste generated by individuals.

Center for Sustainable system<sup>41</sup> in its paper municipal solid waste describe the best sustainable waste management methods to include Landfill, combustion, recycling and composting. The focus of the work is on the approach to be used during waste management. The work did not make reference to any laws regulating waste management.

Rachael<sup>42</sup> in her paper explained that sustainable waste management entails prevention, preparing for reuse, recycling, recovery and disposal. In order for waste sector to contribute to a green economy, 3 pillars of sustainable development (social, environmental and economic sustainability) need first be met. The absence of a sustainable waste management practice will have a negative impact on the economy, leading to environmental destruction, unnecessary running down of natural capital stock and negative health and social impact. This work identified the benefit of a sustainable waste management in ensure even though it does not identify how to achieve a sustainable waste management practice.

<sup>&</sup>lt;sup>41</sup>Centre for sustainable systems; "Municipal Solid Waste Factsheet", University of Michigan 2015, pub No.C5504

<sup>&</sup>lt;sup>42</sup> Rachel W; "International solid waste Management and the Green Economy", International Solid Waste Association Key Issue Paper, June 2013

Having reviewed the literatures above, most of the literatures discussed the Act with respect to the management of a particular type of waste, while other literature focused solely on discussing waste management without reference to the management procedures provided by the Act and its regulation. It is for this reason this research is embarked upon.

#### 1.9 CONCLUSION

The need for sustainable waste management led to the creation of the NESREA Act 2007. However despite the enactment of the Act waste has continue to be a major problem in Nigeria. The attempt to proffer a lasting solution to the problem of waste has informed this study to examine the NESREA Act 2007 on waste management in Nigeria. This chapter has given adequate background insight into the scope of this dissertation, the objectives, the significance and the limitations of the work. It has also reviewed the work of some authors both in Nigeria and Abroad on waste.

#### **CHAPTER TWO**

#### CONCEPTUAL DISCOURSE ON WASTE MANAGEMENT IN NIGERIA

#### 2.0 Introduction

This chapter will define some important concepts that are fundamental to the study, and to help achieve a broader understanding of what the study entails. The chapter will explain the concept of waste and waste management and identify the different categories of waste as well as the different method of waste management. The chapter will further explain environmental standards and identify the legal framework regulating waste management in Nigeria.

#### 2.1 Concept of waste

Waste has been in existence since the pre-industrial era where at the time, waste did not constitute serious threat to the environment. Waste at that time consists mainly of ash from firewood, human and animal excreta and vegetable waste that were buried in the ground through composting to improve the structure of the soil. Industrialization contributed to the increase in the amount of waste generated in modern society thereby degrading the quality of the environment and giving rise to repeated epidemics.

Waste has no general definition which has led to a number of definitions postulated by different scholars and legislation. Waste is usually defined as any material, substance or by product eliminated or discarded as no longer useful or required after the completion of a process.

<sup>2</sup> Waste is also defined as an unusable or unwanted substance or material produced during or as a

<sup>&</sup>lt;sup>1</sup>www.beginwiththebin.org/resources/for-education acessed 22/2/2017 8:09pm

<sup>&</sup>lt;sup>2</sup> Definition of waste at en.oxforddictionaries.com/definition/waste accessed 18/4/2018 5:52pm

result of a process such as metabolism or manufacturing.<sup>3</sup> A substance is waste if the intention of the person who generate it or who is currently in possession of it is to rid (i.e dispose) himself of it. The difference in the above definitions is that while in the former definition a material is waste if it is discarded because it is no longer useful, in the later definition a material or substance is waste if it is unwanted or unusable. The material does not have to be discarded for it to be waste. The difference in definition shows how waste is looked at from one individual to another.

Article 2(1) of the Basel Convention define waste as any substance which are disposed of or are intended to be disposed of or are required to be disposed by the provisions of any law.<sup>4</sup> By this definition the substance does not have to be disposed of to be considered waste, the intention to dispose a substance makes the substance waste even if it has not been disposed.

Statutorily defined, waste is any substance or article which requires to be disposed of as being broken, worn out contaminated or spoiled.<sup>5</sup> Where the material in question or substance is broke, worn out or contaminated it is considered waste by this definition irrespective of whether the material can be reused or not. The NESREA Act and the Harmful waste (Special Criminal Provision) Act did not provide a definition of waste, however section 48 of the Nuclear Safety Radiation Protection Act<sup>6</sup> define waste as

a. Any substance which constitute a scrap material or an effluent or other unwanted surplus substance arising from the application of any process and also includes any substance or article which is required to

<sup>&</sup>lt;sup>3</sup>www.dictionary.com/browse/waste-product acessed 22/2/2017 8:45pm

<sup>&</sup>lt;sup>4</sup> Article 2(1) Basel Convention on the Transboundary Movement of Hazardous waste 1989

<sup>&</sup>lt;sup>5</sup> Section 75(2) United Kingdom Environmental Protection Act 1990

<sup>&</sup>lt;sup>6</sup> Cap N.142 LFN 2004

be disposed of as being broken, worn out, contaminated or otherwise spoilt

b. Any substance or article which in the process of carrying on any process provided for in this Act is discharged, discarded or otherwise dealt with as if it were waste shall for the purpose of this Act be presumed to be waste until the contrary is proved.

Section 29 of the Lagos Waste Management Authority Law 2007, defined waste as all waste materials whether solid or liquid including but not limited to garbage, refuse and other discarded waste materials resulting from industrial, commercial and agricultural operations, including waste from mines and quarries and shall also include:-

- a. Any substance which constitute a scrap material or an effluent or other unwanted surplus substance arising from the application of any process and
- b. Any substance or article which requires to be disposed of as being broken, worn out, contaminated or otherwise soiled.
- Anything which is discarded or otherwise dealt with as if it were waste shall be presumed to be waste.

The courts in some jurisdictions have interpreted the definition of waste in some statutes to clear the ambiguity where the definition of the term waste is very obscure. In Long v Brook<sup>7</sup> the crown court held that the term waste under the Control of Pollution Act 1974 means discarded materials

<sup>&</sup>lt;sup>7</sup> (1980) Criminal Law Report 109.

by the owner.8 This definition was followed in the case of Kent Country Council V QueensborougRolling Mill Co. Ltd<sup>9</sup>, where waste was defined as any liquid, solid or gaseous substance discarded or intended to be discarded because it has no value. In this case, the defendant company was charged with depositing waste on land without a disposal license contrary to the Pollution Control Act of 1974. The waste concerned consisted of ballast, china clay and broken pottery from a disused site which was being cleared by a demolition company. This material was used to fill an area subject to subsidence. The defendant argued that the material was not waste put to a useful purpose and therefore was not unwanted. The court held that because it was although the material was put to useful purpose that was not relevant factor in deciding whether the material was a waste. The important factor was the nature of the material when it was discarded. If it were a waste it will always remain a waste until it was adequately recycled.

In Inter-Environment WallonieAsbl V Region Wallonie the European court of Justice held that the definition of the term waste covered both disposal and recovery of substance or object. The inclusion of recovery in the term waste gives importance to the material disposed by stating that the term waste does not just mean disposal but includes the recovery of the material disposed. This definition gives a broader perspective to the term waste by including the term recovery which is in contrast with other definitions like the statutory definition provided and the definition in Kent County council, which limits the definition of waste to anything unwanted and disposed or discarded.

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<sup>&</sup>lt;sup>8</sup> Section 3 of the Act defines waste as "substances or articles which were scrap or which required to be disposed of because it was broken, worn out, contaminated or otherwise spoilt"

<sup>&</sup>lt;sup>9</sup> (1990) 154 JP 442 atwww.courtsni.gov.uk/en-GB/judicial%20 Decisions accessed 19/2/2017 9:10pm

In the case of Commune de MesquerVs Total France SA<sup>10</sup> waste was defined as substances discarded by their owners even if they are capable of economic reutilization, or have a commercial value and are collected on a commercial basis for recycling, reclamation or reuse.

The general idea is that a material has to be disposed or thrown away for it to be waste. However looking at the definitions above, a substance or material does not only have to be thrown away, discarded or disposed for it to be wastes, a substance is considered waste if there is intention to discard or throwaway or disposed because it is worthless, defective, unusable unwanted and valueless. Going by the decision in the case of Queensborough a waste will always be waste until it is adequately recycle.

### 2.1.1. Classification of waste

Waste is categorized into various forms depending on their nature. Regulation 106 of the National Environmental (sanitation and waste control) Regulation<sup>11</sup> provided for the following categories of waste which are:-

1. Municipal Solid waste<sup>12</sup>- Municipal solid wastes are waste collected by or on behalf of a municipality, they are wastes that are dry in form and are discarded as unwanted. 13 They are predominantly garbage, refuse, sludge, rubbish, debris, tailings, and litter we make in our homes, industrial area, commercial centers institutions and industries. In other word they are the things or materials thrown into litter bins or Dust bins in institutions, homes, business centers.

<sup>10 (2009)</sup> Env LR 9 at www.landmarkchambers.co.uk accessed 08/12/2020

<sup>&</sup>lt;sup>11</sup> Regulation S.I of 2009

<sup>&</sup>lt;sup>13</sup> Eva P: "categories of waste" in Evolving the theory of waste management published by University of Oulu Press 2002

- 2. Liquid waste <sup>14</sup>- liquid waste are waste that come in non-solid form, they are unwanted substances in liquid form which are usually point source and non-point source discharges <sup>15</sup>. They include storm water, waste water consisting of wash water from homes, liquid from industries and waste detergents<sup>16</sup>. In other words, liquid waste is said to be the water drained mostly from the toilets, kitchens to the gutter/drainages.
- 3. Hazardous waste<sup>17</sup>- hazardous waste is waste that has substantial or potential threat to the public or the environment, it may be in gaseous, liquid and solid form. 18 any waste or combination of waste that exhibit ignitable, corrosive, reactive, or toxic characteristics and poses substantial danger, now or in the future, to human, plant or animal life and which therefore cannot be handled or disposed of without special precautions <sup>19</sup> hazardous waste are any solid, liquid or gas waste that can cause death, illness or injury to people, or destruction of the environment if improperly treated, stored, transported or discarded. <sup>20</sup>Section 15 of the Harmful Waste (special criminal provision) Act<sup>21</sup> defines hazardous waste as any injurious, poisonous, toxic or noxious substance and in particular includes nuclear waste emitting any radioactive substance if the waste is in such quantity, either with any consignment of the same or of different substance as to subject any person to the risk of death, fatal injury or incurable impairment of physical and mental health: and the fact that the harmful waste is placed in a container shall not, by itself, be taken to exclude any risk which might be expected to arise from the harmful waste.

<sup>14</sup> Ibid

<sup>&</sup>lt;sup>15</sup> Point sources are simple identifiable source of pollution from which pollutants are discharged such as ditch, pipe, while non pointsources are large area that has combination of different pollutants rather than example of non point source is runoff.

<sup>16</sup> www.ewasteddisposal.net/liquid/waste accessed 21/4/2018 at 5:55pm

<sup>18</sup> www.epa.gov/hazardous waste/learn-basics-hazardous-waste accessed 21/4/2018 at 6:16pm

<sup>19</sup> Regulation 106 opcit para 23

<sup>&</sup>lt;sup>20</sup> Regulation 54 National Environmental(food beverages and Tobacco Sector) Regulation

<sup>&</sup>lt;sup>21</sup> Cap H1 LFN 2004

The Basel Convention of 1989 states that waste is hazardous if it possess the following characteristics which are corrosive (easily eat through metal) inflammable (easily catch fire), reactive (easily explode) or toxic (poisonous to human and animals)<sup>22</sup>. From this definition it can be deduced that hazardous waste are waste which on contact can be injurious to the health. Example of hazardous waste in Nigeria is toxic waste from oil exploration and production, waste from chemical activities of industries or corporation. This type of waste are hazardous and toxic since the waste generated from the use of chemicals that are usually dangerous on contact. The effect of contact with this toxic waste has been incidents of birth defects by women exposed to the toxic waste.

There are different type of hazardous waste provided under the National Environmental (Sanitation and Waste control) Regulation, they are:-

a. Radioactive/Nuclear waste:- is any radioactive material that has been or will be, discharged as being of no further use. <sup>23</sup> Section 48 of the Nuclear Safety and Radiation Protection Act<sup>24</sup> define Radioactive waste as a) a substance or article which if it were not wastes would be regarded as a useful radioactive material or radiation source, b) a substance or article which has been contaminated in the course of production, storage, or use of radioactive material or by contact with or proximity to other wastes falling within the provision of this decree. It is worthy to note that most radioactive waste result from the production of nuclear weapons, electricity generation, the petroleum, agricultural and mineral exploration industries. For example a spent chip of uranium is

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 $<sup>^{\</sup>rm 22}$  Annex III of The Basel Convention on the Trans-boundary Movement of Hazardous waste

<sup>&</sup>lt;sup>23</sup> Ibid Regulation 106

<sup>&</sup>lt;sup>24</sup>.Cap R 142 LFN 2004

a radioactive waste.<sup>25</sup>

b. Healthcare waste<sup>26</sup>:-healthcare waste is a by product of healthcare that includes sharps, blood, and medical devices. They are waste originating from minor or scattered sources such as that produced in the course of healthcare undertaken in the home or hospital.<sup>27</sup>they are waste which are (a) Generated during the diagnosis, treatment or immunization of human beings or animals or in research or activities pertaining thereto or in the production or testing of biological experiment (b) Generated in medical health institutions (dispensaries, hospitals, polyclinics and outpatient departments, dental clinics, veterinary stations, pharmacies, patent medical shop etc), as a result of use of contamination during diagnosis, medical treatment and prevention of diseases in humans and animals.

Regulation 54,57, 88 and 90 of the National Environmental Sanitation and Waste Control Regulation identify the following categories of healthcare waste they are:-

- i. Infectious waste:- these are waste that contains pathogens in a sufficient concentration or quantity to cause disease example materials containing blood of infected patients, live or attenuated vaccines and excreta.
- ii. Pathological waste:- they are human and animal fluid or tissues example body parts, blood and other body fluids, fetuses and animal carcasses
  - iii. Sharps:- sharp wastes are any item that could cause cuts or puncture wounds and they are needles, infusion set, scalpels, knives, blades, broken glass that

<sup>&</sup>lt;sup>25</sup>Ladan M.T :Legal Issue in Environmental Sanitation and Waste management in Nigeria:- role of environmental courts, a paper presented at a 3 day national seminar for magistrates on the sanitation laws in Nigeria 5<sup>th</sup>-8<sup>th</sup> October 2015

<sup>&</sup>lt;sup>26</sup> Ibid Regulation 106

<sup>&</sup>lt;sup>27</sup>Amokaye O.G : Management of Hazardous waste and chemical in Environmental law and Practice in Nigeria MIJ Professional publishers(2014) pp447

may cause puncture and cuts.

- iv. Pharmaceutical waste:- these are any expired, unused, split and contaminated pharmaceutical product, drugs, vaccines and sera that need to be disposed of appropriately
- v. Genotoxic waste:- They are highly hazardous waste that are derived from drugs used in oncology or radiotherapy units that have high hazardous mutagenic or cytotoxic effects.<sup>28</sup>
- vi. Chemical waste- these are waste containing chemical substances example laboratory reagent, disinfectants.
- c. Toxic waste<sup>29</sup>: they are waste from substance which on entry into an organism through ingestion, inhalation and dermal contact is injurious, causes physiological or biochemical disturbances or causes deterioration of the organisms in any way. Waste is considered toxic if it is poisonous, carcinogenic (causing cancer) mutagenic (causing damage to chromosomes) tetrogenic (causing birth defect). Examples of common product that become toxic waste streams are batteries from electronic device, pesticide.<sup>30</sup>
- d. Electronic waste<sup>31</sup>:- electronic waste is a generic term embracing all type of wastes containing electrically powered component and is generally used to describe old, end of life or discarded appliances using electricity.<sup>32</sup> They are waste from electrical or electronic equipment that is no longer suitable for use which the owner has discarded.

<sup>&</sup>lt;sup>28</sup>www.healthcare-waste.org/basics/categories accessed 21/4/2018 at 6:37

<sup>&</sup>lt;sup>29</sup> Ibid Regulation 106

<sup>&</sup>lt;sup>30</sup> Ramon J: toxic waste pollution at <u>www.britannica.com/science/toxicwaste accessed 21/4/2018</u> at 6:42

<sup>31</sup> Ibid

<sup>&</sup>lt;sup>32</sup>Amokaye O.G: Electronic Waste in Environmental Law and Practice in Nigeria 2<sup>nd</sup> Edition, MIJ Professional Publishers 2014 pp 464

Whole categories of old electronics items contribute to e-waste e.g DVD, fans, laptops, computers.<sup>33</sup>

- 2. Waste Oils<sup>34</sup>:- waste oils are any minerals, synthetic or industrial oils in liquid or semi liquid form that have become unfit for the use they had been originally intended waste oil include used oils from internal combustion engines, oils from gear box, as well as oil from turbines and hydraulic oil. Waste oils are considered hazardous waste as they display some hazardous properties.<sup>35</sup> They are also seen as oils that has never been used because it has been compromised through contamination and is now unsuitable for its original use.<sup>36</sup> By this definition of waste oil the oil does not have to be used to be waste, contamination of the oil makes it waste irrespective of whether it has been used or not.
- 3. End-of-life waste<sup>37</sup>:- they are post-consumer waste of product appliances, equipment, machinery that may have integrity but have lost its utility value. Example of end of life waste is tyre, vehicle, television, cooker, refrigerator, mobile phones, e.t.c which the owner have discarded. In other words they are used gadgets or appliances that are no longer needed which the owner has disposed.
- 4. Leaf and Yard waste<sup>38</sup>:- they are also known as vegetative waste and consist of plant materials that are typically generated in outdoor residential settings. They are vegetative matter resulting from gardening horticulture, landscaping or land clearing operations including materials such as tree and shrub trimmings, plant remains, grass

<sup>&</sup>lt;sup>33</sup> See www.bostonelectronicwaste.com/go-green/what-is-ewaste accessed 21/4/2018 at 6:45pm

<sup>34</sup> Ibid

<sup>&</sup>lt;sup>35</sup> Waste oils at <u>www.properties.ec.europa.ev/environment/waste/oil-index.htm</u> accessed 21?4/2018 at 7:30pm

<sup>&</sup>lt;sup>36</sup> Waste oils at www. petro-online.com-new-waste oil accessed 21/4/ 2018 at 7:15pm

<sup>37</sup> Ibid

<sup>38</sup> Ibid

clippings, leaves, trees, stumps but exclude construction and demolition debris or contaminated organic matter. They are the cleanest form of solid waste are usually used for composting.<sup>39</sup>

## 2.2 Concept of waste Management

Waste management is the process of treating wastes and offers variety of solution for recycling items that don't belong to trash. Waste management is the activity of collecting, transporting, processing, recycling or disposal of waste materials generated by human activities. Statutorily defined, waste management means planning, handling, treatment, processing and disposal, including the supervision of these operations, as well as the measures for protection of the environment and of human life and health during the operation for the facilities and installations for waste disposal, and the care taken after the termination of their operations, generation and of its negative impact on the environment, human life and health, including waste handling. 42

Waste management ranges from waste generation, collection, processing and disposal to supervision of these operations.<sup>43</sup> Proper management of solid, liquid, gaseous and harmful/hazardous waste aims at enhancing the quality of human, animal and plant life as well as the environment for sustainable development.<sup>44</sup>

39 www.encyclopedia.wm/env/encyclopedia-almanacs-transcription and -maps/yard-and-leaf-waste. accessed 22/4/2018 at 6:20am
40 Waste management at www.conserve-energy-future.com/waste-management-and waste-disposal methods.php

<sup>&</sup>lt;sup>40</sup> Waste management at <u>www.conserve-energy-future.com/waste-management-and waste-disposal methods.php</u> accessed 12/7/2016

<sup>&</sup>lt;sup>41</sup> Simeon A, Government Regulation and Legislations will ensure sustainable waste management in Nigeria at www.iswa.org/le\_2009\_2-357.

<sup>42</sup> Ibid Regulation 106

<sup>&</sup>lt;sup>43</sup>Ladan M.T Opcitpp 30

<sup>&</sup>lt;sup>44</sup> Regulation 2 of the National Environmental Sanitation and Waste Control Regulation

Regulation 106 of the National Environmental (Sanitation and Waste Control) Regulation provide for the following method of waste management:-

- a. Composting<sup>45</sup>:- composting is the biological decomposition of organic materials, substances or objects under controlled circumstances to a condition sufficiently stable for nuisance free storage and safe use in land applications<sup>46</sup>. Composting is the process of adding organic material like food wastes, animal byproducts to the soil to help plant grow.<sup>47</sup>
- b. Disposal site<sup>48</sup>:- disposal site is any area of land on which waste disposal facilities are physically located or final discharge point without the intention of retrieval but does not mean a re-use or recycling site. It is a site established for the disposal of waste materials where it could be recovered for reuse, recycle or energy recovery.
- c. Incineration<sup>49</sup>:- it is a method of refuse disposal in which controlled burning of waste is undertaken in an enclosed chamber. It is the controlled burning of solids, liquids, gaseous combustible waste to produce gases and residues containing little or no combustible materials. It is the destruction of waste in a furnace by controlled burning at high temperature. Incineration converts the waste to ash and heat.<sup>50</sup> One of the disadvantages of this management method is that it encourages the burning of useful materials or resources that can be used further.<sup>51</sup>

<sup>&</sup>lt;sup>45</sup> Regulation 106 Para 11

<sup>&</sup>lt;sup>46</sup>Ladan MT Opcit PP 30

<sup>47</sup>www.epa.gov/composting accessed 20/2/2017

<sup>48</sup> Regulation 106 para 17

<sup>&</sup>lt;sup>49</sup> Ibid Para 25

<sup>50</sup> www.businessdictionary.com accessed 20/2/2017

<sup>&</sup>lt;sup>51</sup>Amokaye O.G: Method of Municipal Solid Waste disposal in Nigeria in Environmental Law and Practice in Nigeria 2<sup>nd</sup> Edition, MIJ publishers, 2014 pp519

- d. Litter bin<sup>52</sup>:- litter bins are receptacles used for putting, receiving discarded or unwanted materials. They are mostly in the form or basket, buckets used for putting unwanted or useless materials.
- e. Storage<sup>53</sup>:- storage is the temporary placement of waste in isolation, which is subsequently retrieved for treatment and or conditioning or disposal. Here waste is usually stored in tight fitting containers particularly hazardous waste to be treated or disposed.
- f. Sanitary Landfill<sup>54</sup>:- sanitary landfill is the method of disposing of refuse on land without creating nuisances or hazards to public health or safety but utilizing the principles of engineering to confine the refuse to the smallest practical volume, and to cover it with a layer of earth at the conclusion of each days operation or at such more frequent intervals as may be necessary.<sup>55</sup> Sanitary landfill is pit with protected bottom where or waste is buried in layers, pressed down to make it solid and covered t reduce the harm from the waste that has been collected.<sup>56</sup>
- g. Treatment<sup>57</sup>:- treatment is any method, technique or process for altering the biological, chemical or physical characteristics of waste to reduce the hazards it present. Waste treatment is the mechanical,, physical, thermal, chemical or biological processes, including sorting, that result in change in the properties of the waste with a view to reducing the volume or hazardous nature thereof, facilitating the handling or making it more suitable for processing and disposal.

<sup>&</sup>lt;sup>52</sup> Ibid Para 31

<sup>&</sup>lt;sup>53</sup> Ibid Para 50

<sup>&</sup>lt;sup>54</sup> Ibid Para 51

<sup>&</sup>lt;sup>55</sup>Ladan M.t pp 11

<sup>&</sup>lt;sup>56</sup> Sanitary landfill at www.hesperian.org accessed 21/2/2017

<sup>&</sup>lt;sup>57</sup> Regulation 106 Para 62

- h. Waste handling<sup>58</sup>:- waste handling is the method of collection, segregation, transportation and storage of waste.
- i. Waste recycling <sup>59</sup>:- waste recycling refers to obtaining substances from waste and their utilization as a substitution of the primary raw materials, or use of properties of the substances contained in the waste for their initial purpose or for other purposes. Waste recycling is the recovery of waste materials to be used for another purpose for example the recovery of metal, plastics, tyres glass, to be used for another purpose.
- j. Waste management facility<sup>60</sup>:- waste management facility are building or establishments or premises build or set up for the sole purpose of managing final disposal of waste. Waste management facilities in Nigeria are mostly lands acquired by the government usually located in an isolated area or outskirt of town for the final disposal of waste.

Although Regulation 106 has identified ten different method of waste management, the most popular method of waste management used in Nigeria is the dumping, litter bin, incineration, composting, waste handling and recycling. This is because of the fact that the majority of the public are not aware of the hazardous nature of some waste and its effect to the environment. To them the best way to handle waste is through disposal since they believe disposal does not have any effect on the environment making other methods like treatment, waste management facility and the sanitary landfill to be neglected.

# 2.3 Meaning of environmental standards

<sup>58</sup> Ibid Para 70

<sup>&</sup>lt;sup>59</sup> Ibid Para 73

<sup>&</sup>lt;sup>60</sup> Ibid Para 76

Environmental standard are standard that lay down the maximum allowable concentration of a substance in air, water or soil. It is the setting of possible limit on the amount of pollutant to be released without causing unacceptable harm to public health or the environment. Purpose of standards is to ensure that the activities generating waste are minimized and to provide medium for the handling of waste materials. Standard serve as a guide to be followed by individuals and waste managers to ensure the proper handling and management of waste in an environmentally friendly manner. Due to the complexity of the nature, volume and effect of waste resulting from industrial activities characterized by their technological process, size, nature of products, types of waste produced and the receiving environment of discharged wastes, the following standards were laid down for compliance and enforcement. These standards are

- a. Effluent limitation, soil quality and noise standards for chemicals, pharmaceuticals, soap and detergent manufacturing industries sector. This standard is aim at reducing and limiting the amount of effluents and waste in the chemical, pharmaceutical, soap and detergent manufacturing industries.
- b. Quality standard for sources of domestic water. This standard maintains the cleanliness of sources of domestic water and prevents them from, this being polluted.
- c. Standard for labeling and packaging of hazardous waste containers. These standard provides procedure for labeling and packaging of hazardous waste containers, these standards requires that hazardous waste containers should be placed in tight sealed containers and labeled as hazardous to give an insight on how to handle such waste.

<sup>&</sup>lt;sup>61</sup> Meaning of environmental standards at www. Swedishepa.se, accessed 08/2/2020 9:05pm

<sup>62</sup> www.stats.oecd.org/glossary/detail.asp?ID=838 accessed 11/7/2016

- d. Standard for the disposal of industrial effluent. This standard provides the method of disposal of industrial effluent
- e. Standard and guidelines for Base, Metal iron and steel manufacturing/recycling industry sector. These standard aims at reducing waste generated from base, metal iron and steel during their manufacture and recycling.
- f. Standard and guideline for electrical and electronic equipment. This standard aim at reducing waste from electrical and electronic equipment and recommends method of their disposal.
- g. Standard and guideline for the construction sector. These standard reduces waste and debris from the construction sector. It is to the effect that debris and waste from construction sites are to be properly managed.

## 2.4 Overview of Legal Framework on waste management in Nigeria

The Legal framework on waste management indicates the effort the government has taken to regulate waste in Nigeria. They are enactments and regulations geared towards addressing the problem of waste and ensuring waste management in Nigeria. These enactments are made to regulate the activities of individuals in relation to waste and provide mediums on how to handle waste in such a way as not to affect the environment and public health. These enactments are:-

• The constitution of the Federal Republic of Nigeria 1999 as amended:- section 20 of the 1999 constitution provide thus

"The state shall protect and improve the environment and safeguard the water, air and land, forest and wild life of Nigeria"

This provision mandates the government to safeguard the Nigerian environment from whatever harm that will affect the quality of the environment. This harm could be from waste materials that are not managed. For instance open burning of waste materials generate smoke which pollutes the air and can as well deplete the ozone layer effect of which could result in climate change. However this provision is hampered because it is contained in chapter II of the constitution which sets out the fundamental objective and directive principle of state policies. It would appear therefore that the duty and responsibility on all organs of the government on environmental protection is limited to the extent that the judiciary cannot enforce any of the provisions of the fundamental objectives and directive principle of state policy under the Constitution.<sup>63</sup>

- National Environmental Standard Regulation Enforcement Agency

  (Establishment) Act 2007:-64 The Act was enacted in July 2007 with the purpose of protecting and developing the environment in Nigeria. The Act made provisions to be complied with when ensuring waste management. To ensure compliance with this provision, the Act created NESREA and identified mechanisms to be used by NESREA when enforcing compliance with the provisions Act on waste management. These provisions shall be discussed in chapter four of this study.
- Harmful Waste Special Criminal Provision Act<sup>65</sup>:- .The harmful waste special criminal provision Act was enacted in 1988 with the specific object of prohibiting the

<sup>&</sup>lt;sup>63</sup>Nnamdi .I Safe disposal of municipal wastes I nigeria: perspective on a right based approach in AfeBabalola University Journal of sustainable development, law and policy 2014 Vol 3(1)

<sup>&</sup>lt;sup>64</sup> CAP N30 LFN 2007

<sup>&</sup>lt;sup>65</sup> H1 LFN 2004

carrying depositing and dumping of harmful waste on any land, territorial waters and matters relating thereto. The Act makes any person who without lawful authority carries, deposits, dumps, transports, imports, sells or causes to be carried, deposited, dumped, transported, imported any harmful waste guilty of a crime under this Act. <sup>66</sup>Harmful waste is considered dumped or deposited if a person deposit or dump the harmful waste, whether solid, semi-solid or liquid, in such circumstances or for such period that he may be deemed

- a. To have abandoned it where it is deposited or dumped or
- b. To have brought it to the place where it is so deposited or dumped for the purpose of its being disposed off or abandoned whether by him or any other person.<sup>67</sup>

The Acts makes a person liable where he commits or assist another in the carrying, depositing, dumping or selling hazardous waste where it and provides that a person shall be sentenced to life imprisonment if found guilty of the crime committed and in addition to forfeit any aircraft, vehicle or land connected with the violation to the federal government of Nigeria.<sup>68</sup>

The Harmful Waste (Special Criminal Provision) Act focuses mainly on criminal prosecution of persons who without lawful authority deposit, dump, sale, import hazardous waste into the environment. 69 The purpose of this is to impose duty of care

<sup>&</sup>lt;sup>66</sup> Section 2 Ibid

<sup>&</sup>lt;sup>67</sup> Section 3 Ibid

<sup>&</sup>lt;sup>69</sup>Nwofu .C.C, "Legal Framework for the Regulation of waste in Nigeria" in International Multidisciplinary vol.4(2) April 2012Journal

on persons dealing with hazardous waste and ensure that such person ensure that a person dealing with hazardous waste is doing so under lawful authority.

Environmental Impact Assessment Act<sup>70</sup>:- the need to manage and control environmental degradation led to the emergence of the Environmental Impact Assessment Act 2004.t the principal goal of the Act is to ensure that possible negative impact of development project are predicted and addressed prior to any project take of.<sup>71</sup> That is to ensure that environmental problems are foreseen at the initial stage of a project. The Act took into account the necessity of according more attention to prevention of environmental degradation, pollution and damage than mitigation of its thus being proactive in nature.<sup>72</sup> The Act requires assessment of public and effect project likely to have a significant (Negative) impact on the environment private  $^{73}$ , and an application in writing before embarking on projects for their assessment to determine approval. 74 The impact that is environmental by a proposed project on the environment, including assessed is any effect caused human health and safety, flora, Fauna, soil, air, water, climate or the interaction among these factors. An instance where the environmental impact assessment act is applied is where a person intends to operate a company or industry; Environmental impact assessment will be made to ascertain if the operation of the company/industry and waste generated from the company/industry will be of such nature that will affect public health and the environment. Where it is

<sup>&</sup>lt;sup>70</sup> E12 LFN 1992

<sup>&</sup>lt;sup>71</sup>Olanrewanju. F Adequay of the Legal and regulatory framework for managing the environment in

<sup>&</sup>lt;sup>72</sup>Hadiza m, Safiya A.H "An appraisal of the Legal Regime for environmental Protecton in Nigeria in Bayero University Journal of Public Law Vol 2 No.1 June 2010

<sup>&</sup>lt;sup>73</sup> Section 2(1) Environmental Impact Assessment Act

<sup>&</sup>lt;sup>74</sup> Section 2(2) Ibid

ascertained that the activities of the industry/company and the waste generated from the industry have no serious negative impact on the environment and public health approval will be given but where it is ascertained that the activities of the company/industry will be of serious negative impact approval will be withheld.

Mineral and Mining Act<sup>75</sup>:- the mineral and mining Act was enacted for the purpose of regulating all aspects of the exploration and exploitation of solid minerals in Nigeria and for other related purposes. Section 61 of the Act requires the holder of an exploration license to conduct exploration activities in an environmentally sound manner. This means that in carrying out exploration activities the holder of an exploration license is expected to carry out such activities in such a way that the environment will not destroyed either from chemicals used in exploration or waste materials from the exploration. The Act prevents the holder of a title from polluting environment where it provide thus the

> "the holder of title shall in the exercise of his rights under the mineral title have regard to the effect of the mining operations on the environment and take such steps as may be necessary to prevent pollution of the environment resulting from mining operations"<sup>76</sup>

From this provision it is evident that the holder of a title is mandated to exercise care during mining operation and prevent pollution of the environment. In effect it means pollution from whatever source is prohibited during mining exploration.

<sup>&</sup>lt;sup>75</sup> CAP F34 LFN 2004

<sup>&</sup>lt;sup>76</sup> Section 111 ibid

The Act prohibits the pollution of water courses in the course of mining or exploration of minerals in the area within the mining lease or beyond by the holder of a mining title and mandates the holder of a mining title to ensure that the water so used does not contain waste or injurious substances in quantities which is likely to prove detrimental to animal or vegetable life. Here the holder of a mining title is expected to purify the water used in mining from waste and injurious substances after completion of the mining operation in the mining area.

• Nuclear Safety Radiation Protection Act<sup>77</sup>;- the Act created the Nigerian Nuclear Regulatory Authority whose function is to protect the environment through the control and regulation of radioactive substances, materials, equipment emitting, generating ionizing radiation. Section 42 of the Act mandates a person dispatching radioactive waste to package such waste in compliance with the packaging and testing requirement where it provide thus

"A person who intends to dispatch radioactive materials or waste shall carryout the packaging of the radioactive materials or waste in compliance with the packaging and testing requirement"

The act makes a carrier or operator of radioactive materials or waste liable for all incidents resulting in radioactive contamination of the environment makes it his responsibility to restore the environment to its original state.<sup>78</sup> By this provision, a carrier of radioactive waste or materials is expected to exercise a duty of care in carrying or operating radioactive waste or substance to prevent the environment from been contaminated. Where

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<sup>&</sup>lt;sup>77</sup> CAP N 142 LFN 2004

<sup>&</sup>lt;sup>78</sup> Section 42(2) Ibid

he fails to do so, he will be liable for all incidents that occurred due to his negligence and for restoring the environment to its original state.

- National Oil Spill Detection Response agency Act<sup>79</sup>:- NOSDRA Act is the principal legislation on environmental protection in the oil and gas sector of Nigeria. The Act created NOSDRA whose objective is to prevent oil and gas pollution of the environment from oil spill and waste in the oil and gas sector. NOSDRA is mandated to play a major role in ensuring appropriate and effective response to oil pollution and ensure the clean-up and remediation of oil spill sites in Nigeria. The Act mandates Oil Corporation to during oil production and exploration establish mechanisms to monitor and assist or where expedient mobilize the necessary resources to save lives, protect threatened environment and clean up to the best practicable extent the impacted area. This means that oil corporations are mandated to ensure that mechanisms are created that will detect pollution of the environment from their activities and to use the necessary resources to save lives, protect threatened environment and clean up the pollutants (oils and waste oil) from the affected area.
- National Environmental (Sanitation and Waste Control) Regulation<sup>82</sup>:- this Regulation was enacted by NESREA in fulfillment of its mandate under section 25 of the NESREA Act. The purpose of this regulation is the adoption of sustainable and environmentally friendly practices in sanitation and waste management in order to

<sup>&</sup>lt;sup>79</sup> CAP N 58 LFN 2006

<sup>&</sup>lt;sup>80</sup>EghosarEkhator Environmental Protection in the oil and Gas industry in Nigeria: the role of gevoerment agencies in www. Academia.edu

<sup>81</sup> Section 5(C) ibid

<sup>&</sup>lt;sup>82</sup> Regulation S.I. No. 28 of 2009

minimize pollution.<sup>83</sup>The regulation created duties and obligations to be observed by individuals or corporation. Some of these duties and obligations are

- No person, owner, occupant or passenger is to discard, throw, or drop any litter into the environment.<sup>84</sup>
- b. Any person whose activities generate waste is to ensure that the waste is handled by a person licensed to transport and dispose of the waste in designated waste management facility. 85
- c. All food vendors shall in line with national policy guidelines and food sanitation<sup>86</sup>
  - i. Ensure that litter and other wastes do not pollute the environment
  - ii. Collect and dispose all waste generated in the course of business to a designated collection point
- d. Any person whose activities generate waste shall segregate such waste by
  - Separating hazardous from non-hazardous wastes before putting out for collection in securely tied plastic bags or leak proof refuse bins with tight fitting lids.
  - b. Keeping refuse bins within the premises before disposal in facilities provided by appropriate authority<sup>87</sup>
- e. All owners or occupiers of premises shall provide waste receptacles for storage before collection by licensed waste managers.
- f. Any person who owns or controls a facility or premises which generates waste to

84 Regulation 3

<sup>&</sup>lt;sup>83</sup> Regulation 2

<sup>85</sup> Regulation 4

<sup>86</sup> Regulation 6

<sup>&</sup>lt;sup>87</sup> Regulation 11

reduce, reuse, and recycle waste to minimize pollution by adopting the following.

- a. Imbibe cleaner production principles to conserve raw materials and energy
- b. Segregate waste at source
- c. Undertake resource recovery, reuse and recycle
- d. And ensure safe disposal.

### 2.5 Conclusion

Waste has no general acceptable definition because what constitutes waste at one end could be a raw material for the production of another product. Thus one man's rubbish is another man's treasure. A look at all the definitions provided above by various authors and enactments shows that all the definitions consider waste to be anything that is unwanted and intended to be disposed. To protect the environment from the effect of waste, enactments were created which aim at maintaining a sustainable environment through identifying the different categories of waste and the waste management method to be used in managing this waste.

This chapter discussed the various definition of waste and waste management. The chapter also discussed the various categories of waste and the different waste management methods provided by the National Environmental (Sanitation and Waste Control) Regulation 2009. The chapter discussed environmental standards and the legal framework regulating waste in Nigeria.

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#### CHAPTER THREE

#### NATURE AND SCOPE OF THE POWERS OF NESREA

#### 3.0 Introduction

This chapter will look at the establishment, structure, function and powers of NESREA. The chapter will also look at institutions conferred with similar powers as NESREA, and the corroborative power of NESREA with other enforcement agencies in Nigeria. This will give the public an insight into the requirement of NESREA as provided by the Act and how the agency is expected to carry out its duties.

# 3.1Establishment of National Environmental Standard Regulations Enforcement Agency (NESREA)

In the period before 1980, there was a total lack of awareness concerning the interface between environmental protection and development. Important issues like waste management did not form part of the general public discourse in Nigeria. During this time there was no national policy aimed at protecting the environment, by extension it means that by this period there was the absence of an agency entrusted with the responsibility of protection of the environment. In 1987, the Koko incident where 3800 tons of toxic waste was deposited at Koko became an eye opener for the government. This incident resulted in the creation of the Federal environmental protection Agency Act 1988. The Act created FEPA an agency responsible for protecting the environment. The inability of the FEPA Act to fulfill its mandate and protect the environment made the government to repeal the FEPA Act and replaced it with NESREA Act. The NESREA Act was enacted on the 30<sup>th</sup> of July 2007 to

<sup>&</sup>lt;sup>1</sup>Nduonofit L.E, Nkpah Y and Ekpenyong O.A: "limitation and drawback of Nigeria's environmental protection law" in International journal of Innovative Environmental research Vol. 3(1) jan-march 2015

protect the environment and ensure sustainable management of the environment. The Act created NESREA a body corporate with perpetual succession and a common seal, which may sue and be sued in its corporate name<sup>2</sup>. NESREA is responsible for the enforcement of all environmental Standards, Rules, Laws, Regulations, Policies and Guidelines. NESREA became the implementing and enforcing authority of all environmental treaties, agreements, conventions and local legislation.<sup>3</sup>

# 3.2 Objectives of NESREA

The objective of the Agency is provided in section 2 of the Act which provide as follows

"the agency shall subject to the provisions of this Act, have responsibility or 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', laws, laws, policies and guidelines"

By this provision the agency is responsible for the protection and development of the environment, biodiversity conservation and sustainable development of Nigeria's natural resources through coordinating and liaising with relevant stakeholders within and outside Nigeria on enforcement of environmental Standards, Regulations, Rules, Laws, Policies and Guidelines. This provision indicate the importance and relevance of standards, rules, policies

<sup>&</sup>lt;sup>2</sup> NESREA Act section 1(2)

<sup>&</sup>lt;sup>3</sup> Muhammad .I: "Legal protection of the marine environment" in Kano Bar Journal: A peer reviewed Journal of the Kano Branch of the Nigerian Bar Association Vol.3:1 July 2015

and guidelines on the environment, they may not have the force of the law, but are vital element in the protection and preservation of the environment.<sup>4</sup>

#### 3.3 Structure of NESREA

NESREA is structured in such a manner that there is a hierarchy involved in the operation, administration and decision making of the agency. The agency is headed by a director General (DG)/ Chief Executive Officer (CEO) who oversees the day to day activities of the agency. The DG/CEO is assisted by a top management staff of seven directors:the director of admin and finance in charge of the directorate of administration and finance<sup>5</sup>which run the administrative and financial activities of the agency. The director of policy analysis is in charge of the directorate of planning and policy analysis,<sup>6</sup> which responsible for reviewing policies and their effectiveness.

The director of inspection and Enforcement in charge of the directorate of inspection and enforcement<sup>7</sup> which is the department responsible for carrying out inspections and enforcement of the provisions of the Act and other Environmental Laws. The director of environmental quality in charge of the directorate of environmental quality control,<sup>8</sup> the department responsible for maintaining and regulating environmental quality.

The director of legal services and special duties, who is in charge of the directorate of legal services, <sup>9</sup> and serve as the Legal adviser of the agency. As requested by law the agency is

<sup>&</sup>lt;sup>4</sup>M.T Ladan; "Review of the NESREA Act 2007 and Regulation2009-2011: Anew Dawn in Environmental compliance and enforcement in Nigeria", in Law Environment and Development Journal VOL.8/1 2012

<sup>&</sup>lt;sup>5</sup>Section 10 (1) (a)

<sup>&</sup>lt;sup>6</sup>Section 10(1) (b)

<sup>&</sup>lt;sup>7</sup>Section 10(1)(c)

<sup>&</sup>lt;sup>8</sup>Section (10) (1) (d)

<sup>&</sup>lt;sup>9</sup>Section (10) (1) (e)

supervised by a governing council which is saddled with the responsibility of policy making and administration of the agency. The council in turn reports to the minister of environment who is the overall regulator of all environmental activities in the country. The minister may give directives of a general and special nature to the agency relating to it's function under this Act and the agency shall comply and give effect to such directives.

In line with the provisions of section 10(5) of the NESREA Act, the Agency has established six zonal offices in the six geopolitical zones of Nigeria and in partnership with respective state government established 24 NESREA state offices.

A look at the structure indicates that in the decision making of the agency, the minister of environment is in charge of the decision making of the agency making the Governing council and the Director general answerable to the minister. The Director General of the Agency is answerable to the Governing council while the directors of the agency are answerable to the Director General.

#### 3.4 Powers and functions of NESREA

To help NESREA fulfill its mandate on environmental protection, Part II of the NESREA Act outlines the functions and powers of NESREA. Section 7 and 8 of the Act provide numerous functions and powers to be exercised by NESREA for a cleaner and healthier environment for Nigerians.<sup>12</sup> In the exercise of its functions, NESREA is mandated to do the following

<sup>10/2</sup> www.wastemart.org/2018/12/nesrea-nigerias-environment-watchdog/ accessed 28/09/2018 10:05am

<sup>11</sup> Section 33 NESREA Act

<sup>&</sup>lt;sup>12</sup>Gozie S.O, "National Environmental Standards Regulation Enforcement Agency (NESREA) ACT, A Review in www.review-of-nesrea-act.com/htlm

- 1. Enforce compliance with laws, guidelines, policies and standard on environmental matters. <sup>13</sup>This is one of the major functions of NESREA, and NESREA execute this function by enforcing compliance with waste management laws like the NESREA Act, Harmful Waste Act, National policy on the environment e.t.c. NESREA is to coordinate and liaise with stakeholders, within and outside Nigeria on matters of environmental standard, regulations and enforcement <sup>14</sup>. Stakeholders are persons or organizations with interest in an enterprise and the relevant stakeholders here are the private sector, Non-Governmental Organizations, Environmental Groups, Parastatals of the government, Civil Society Organization and Faith Based Organizations. <sup>15</sup>NESREA has Liase with stakeholders Standard Organisation of Nigeria to prevent the importation of hazardous materials into Nigeria.
- 2. Enforce compliance with the provisions of international agreement, protocols, conventions and treaties on the environment including climate change, biodiversity, 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<sup>16</sup>. Even though the Act does not regulate the Oil and Gas sector, i.e the oil and Gas sector is not within the mandate of NESREA, this provision allow NESREA to enforce compliance with international instrument regulating oil and Gas activities in Nigeria. However, NESREA can only

<sup>13</sup> Ibid section 7(a)

<sup>14</sup> Ibid section 7(b)

<sup>&</sup>lt;sup>15</sup>Princewell N.A, Andrew A.E, Anthony U.N: Curbing and mitigating indiscriminate waste dumping through effective stakeholder relationship in International Journal of Science and Research v0l.2 2014

<sup>&</sup>lt;sup>16</sup> Ibid section 7(c)

enforce these international instruments where such instrument has been ratified. This is in line with section 12(1) of the 1999 constitution<sup>17</sup> which provides that

"no treaty between the federation and any other country shall have the force of the law except to the extent to which any such treaty has been enacted into law by the national assembly where the treaty deals with matter not included in the exclusive legislative list".

By this provision, a treaty can only be implemented and enforceable once it has been domesticated into our national law. Once ratified a treaty becomes binding on the state party. To make some international instrument on waste management enforceable in Nigeria, Nigeria fulfilled this constitutional requirement of ratification and domestication on some international instrument on waste management making this instrument enforceable by NESREA. The waste management treaties that has been domesticated are the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade 1998 domesticated into the Basel Convention on the Trans-boundary Movement of Hazardous Waste and Other Matters 1989 domesticated into the Harmful Waste (special criminal provision) Act 2004<sup>19</sup>.

3. Enforce compliance with policies, standards, legislation and guidelines on water quality, environmental health and sanitation including pollution abatement.<sup>20</sup> This function of NESREA relates to ensuring that standards, legislations and guidelines on water quality,

<sup>&</sup>lt;sup>17</sup>Constitution of the Federal Republic of Nigeria 1999 as Amended

<sup>&</sup>lt;sup>18</sup>Aliyu A.H: "The challenges of implementing international treaties in third world countries: the case of maritime and environmental treaties implementation in Nigeria" in Journal of Law Policy and Globalisation Vol.50 2016

<sup>19</sup> CAP H1 LFN 2004

<sup>&</sup>lt;sup>20</sup> Ibid section 7(d)

environmental health and sanitation are complied with. Example of such standard that is required to be enforced is the Quality standard for sources of domestic water which seeks to maintain cleanliness of the sources of domestic water. It can therefore be implied that the function of NESREA are directed primarily at the prevention of pollution and environmental harm from waste rather than remedying the harm that has already occurred on the environment from waste.<sup>21</sup>

- 4. Enforce compliance with guidelines and legislations on sustainable management of the ecosystem, biodiversity conservation and the development of Nigeria's natural resources<sup>22</sup>. Destruction of the ecosystem and the loss of biodiversity is one of the major effect of pollution on the environmentthat is why this provision confers broad powers on NESREA to enforce, guidelines and legislation on the sustainable management of the ecosystem and biodiversity conservation.<sup>23</sup>
- 5. Enforce compliance with any legislation on sound chemical management, safe use of pesticides and disposal of spent packages, regulations on the importation, exportation, production, distribution, storage, sale, use, and handling and disposal of hazardous chemicals and waste other than in the oil and gas sector<sup>24</sup>. Hazardous waste originates from hazardous substances like pesticide, chemicals and drugs. To ensure that this hazardous substances are used, managed and disposed in an environmental friendly manner.
- 6. The Act empowers NESREA to enforce compliance with the provisions of the Act and the provisions of any legislation regulating the use and handling of hazardous

<sup>&</sup>lt;sup>21</sup>Dauda A.A, "An examination of Legal Regulation and Environmental Impacts of Telecommunication installations" Journal of Law, Policy and GlobalisationVol 30 2014.

<sup>&</sup>lt;sup>22</sup> Ibid section 7(e)

<sup>&</sup>lt;sup>23</sup>LadanOpcit

<sup>&</sup>lt;sup>24</sup> Ibid section 7(f)(g)

substances. Enforce through compliance monitoring the environmental regulations and standard on noise, air, land, seas, oceans, and other water bodies other than in the oil and gas sector<sup>25</sup>.

In fulfilling this mandate, NESREA is expected to establish monitoring mechanism to locate and monitor the activities of industries, organizations dealing with waste and ascertain if their activities pose potential danger on the environment; this will help reduce the negative effect of waste on the environment.<sup>26</sup>

- 7. Ensure that environmental projects funded by donor organizations and external support agencies adhered to regulations in environmental safety and protection.<sup>27</sup>There are organizations particularly international organizations that sponsor or provide funding for a project to be carried out e.g biodiversity conservation research. During the take-off of this project, NESREA is mandated by the Act to ensure that these projects are done in a manner not detrimental to the environment.
- 8. Enforce environmental control measures, through registration, licensing and permitting systems other than in the oil and gas sector.<sup>28</sup> License and permit are authorization given to a person to carry out an activity for instance waste management. NESREA through registration permitting and licensing control the amount of pollutant to be discharged into the environment by ensuring that the amount of pollutants discharged does not exceed the required limit that will affect the environment.<sup>29</sup>

<sup>25</sup> Ibid section 7(h)

<sup>&</sup>lt;sup>26</sup> Miranda .A " Update in E-waste Management" in a paper presented at the 3<sup>rd</sup> annual meeting of Global E-waste management network, in Francisco U.S.A 13<sup>th</sup>-15<sup>th</sup> July 2013

<sup>&</sup>lt;sup>27</sup>Ibid section 7 (i)

<sup>&</sup>lt;sup>28</sup>Ibid section 7 (j)

<sup>&</sup>lt;sup>29</sup>Ladan M.T: Legal Issues in Environmental Saniation and Waste Management in Nigeria:nRole of environmental courts" being a paper presented at a 3 day national seminar for magistrates on Environmental and sanitation law in Nigeria  $5^{th}$ - $8^{th}$  October 2015

- 9. Conduct environmental audit and establish data bank on regulatory and enforcement mechanisms of environmental standard other than in the oil and gas sector.<sup>30</sup> Environmental audit is carried out by NESREA to ascertain the extent of progress made in environmental compliance on waste management. With the environmental audit, it will be easier for NESREA to identify if there is need for the review of the regulatory approach it uses.
- 10. Create public awareness and provide environmental education on sustainable environmental management, promote private sector compliance with environmental regulation other than in the oil and gas sector and publish general scientific or other data resulting from the performance of its functions<sup>31</sup>. The NESREA Act empowers NESREA to come up with modalities on ensuring environmental awareness and compliance. The modalities used by NESREA to create public awareness are television station, radio houses, news magazines, e.t.c<sup>32</sup>. In addition to the above mandate NESRE A is mandated to carry out such activities as are necessary or expedient for the performance of its functions<sup>33</sup>.

While NESREA is allowed to enforce compliance with laws, guidelines, policies and standard on environmental matter, such enforcement is not extended to the oil and gas sector. In other words NESREA is barred from handling environmental matters in the oil and gas sector.<sup>34</sup>

<sup>&</sup>lt;sup>30</sup>Ibid section 7(k)

<sup>31</sup> Ibid section 7 ((I)

<sup>&</sup>lt;sup>32</sup>Agbazue V.E, Anih E.K and Ngang B.U "the role of NESREA Act 2007 in Ensuring Environental awareness and compliance in Nigeria" in I.O.S.R Journal of Applied Chemistry Vol.10(9) September 2017

<sup>33</sup> Ibid section 7(m)

<sup>&</sup>lt;sup>34</sup> Rufus. A.M, "Judicial Attitude to environmental Litigation and Access to environmental justice in Nigeria" in AfeBabalola University Journal of sustainable Development, law and policy Vol.2(1) 2013

Looking at the above mentioned functions, it can be subsumed that the core functions of NESREA is environmental regulation, capacity builder and environmental advisor.<sup>35</sup>

For effective exercise of its functions NESREA has been conferred with broad powers that will enable it fulfill its mandate in environmental protection. These powers of NESREA are

- 1. Power to Purchase or take on lease any interest in land, building or property<sup>36</sup>, build equip and maintain the offices and premises for the performance of its function under this Act<sup>37</sup>. and lease out any office or premises held by it, which is no longer required.<sup>38</sup> This provision applies where for instance there is an area where waste generation is high and there is no compliance with environmental laws on waste management, NESREA could purchase or take lease, build, equip and maintain offices in such area for easy access to such vicinity and the smooth performance of its functions.
- 2. Power to prohibit processes and use of equipment or technology that undermine environmental quality<sup>39</sup>. Conduct field follow up of compliance with set standards and take procedures prescribed by law against any violator. 40 There are instances where equipment used by waste management facilities undermine environmental quality by this provision NESREA has power to prohibit the use of such equipment by waste management facility and conduct field follow up to ensure that the prohibited equipment are replaced with equipment that will protect environmental quality. The essence of the

<sup>&</sup>lt;sup>35</sup> Powers and functions of NESREA at www.wastemart.org/2018/12/nesrea-nigerias-envronmental-watchdog/ accessed 26/09/2018 10:45am

<sup>36</sup> Ibid section8(a)

<sup>37</sup> Ibid section8(b)

<sup>38</sup> Ibid section 8 (c)

<sup>39</sup> Ibid section 8(d)

<sup>40</sup> Ibid section8(e)

field follow-up is to ensure that standards prescribed by law are complied with, noncompliance of which make a violator liable.

- 3. Powerto collaborate with relevant judicial authorities to establish mobile courts to expeditiously dispense cases of violation of environmental regulations.<sup>41</sup> The purpose of the mobile court is to ease pressure on courts and ensure that environmental cases are easily dispatched without undue delay.<sup>42</sup> With the creation of mobile courts it will be a lot easier for NESREA to enforce compliance with waste management laws since individuals, organizations will be willing to comply with waste management laws because of the fear of being taken to court. The question is how productive or expediouswill this court be, given the fact that every case that will go to court will be with the consent of the Attorney General<sup>43</sup>. Since section 32 (3) (4) of the NESREA Act provides that NESREA can only institute an action with the consent of the Attorney General.
- 4. Power to conduct public investigations on pollution and the degradation of natural resources except investigations on oil spillage<sup>44</sup>. Public investigations on pollution help NESREA to ascertain the true extent of environmental damage. The extent of the damage done will help NESREA decide the sanction more suitable to the violator.
- 5. Open and operate domiciliary accounts for the agency in recognized banking institutions in Nigeria.<sup>45</sup> The purpose of the domiciliary is for management of funds that will be used in the exercise of NESREA's functions. It is also empowered to Borrow by overdraft or

<sup>&</sup>lt;sup>41</sup> Ibid section 8 (f)

<sup>&</sup>lt;sup>42</sup>Soji .A "Engaging the Judiciary and Law enforcement agencies in environmental compliance monitoring and enforcement" in a Paper Presented at the 8<sup>th</sup> National Stake holders forum, 4<sup>th</sup>-5<sup>th</sup> November 2015.

<sup>&</sup>lt;sup>43</sup> EZEIGBE K, MESCHACH N," A critical review of the law on environmental protection for manufacturing industry in Nigeria" in International Journal of Business and Law Research, Vol 3(3) july 2015

<sup>44</sup> Ibid section 8(g)

<sup>45</sup> Ibid section 8(h)

otherwise, with the approval of the minister such sum as it may require for the performance of its functions under the Act<sup>46</sup>.

- 6. Accept gift of land, money or other property upon such terms and conditions if any as may be specified by the person/ organization making the gift as long as such condition are consistent with the functions of the agency<sup>47</sup>. This provision will pose a challenge on NESREA in fulfilling its functions, and italso allows for opportunity of bribery to the agency by persons/ organization. The effect of which will difficulty in sanctioning a violator whom the agency has collected a gift from.
- 7. Submit for the approval of the minister, proposals for the evolution and review of existing guidelines, regulations, standards on environment other than in the oil and gas sector including effluent limitation, waste management and environmental sanitation, other forms of pollution and sanitation and control of hazardous substances and removal control method<sup>48</sup>. With the continuous increase in technological invention and population, there is bound to be a continuous increase in waste generation. To be able to regulate the continuous increase in waste NESREA has to review existing guidelines, regulations and standard and make proposals for new regulation that will regulate the increase in waste. The need to review or develop new guidelines to is to make law in line with the new or current environmental situation or environmental problem
- 8. Develop environmental monitoring networks, compile and synthesize environmental data from all sectors at national and international levels,<sup>49</sup> The provision gives NESREA supervisory power to monitor the activities of others on the environment which will

<sup>&</sup>lt;sup>46</sup> Ibid section 8 (i)

<sup>47</sup> Ibid section 8(j)

<sup>48</sup> Ibid section 8(k)

<sup>&</sup>lt;sup>49</sup>Ibid section 8(I)

- provide it with adequate information of the extent of compliance with environmental laws regulations and standards by agencies institutions and organization.
- 9. Undertake coordinate, utilize and promote the expansion of research experiments, surveys and studies by public and private agencies, institutions, and organization concerning causes, effects, extents, prevention, reduction and elimination of pollution and such other matters related to environmental protection and natural resource conservation other than in the oil and gas sector as the agency may from time to time determine<sup>50</sup>. This provision gives NESREA the power to promote the expansion of research experiments, surveys and studies by public and private agencies on the effects and the method of prevention, reduction and elimination of waste in Nigeria. Since waste is one of the major causes of environmental degradation this survey, studies and research will provide a better way to deal with the problem of waste.
- 10. Enter into partnership agreement and contracts with public and private organizations and individuals to develop, utilize, coordinate and share environmental monitoring programmers, 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.<sup>51</sup> In line with these provisions NESREA entered into a partnership agreement with the National space research and development agency to fight environmental and trans-boundary crime in the country. The essence of the agreement is to deploy high remote sensing application that will identify premises or institutions violating waste management laws. This will help encourage waste management and improve

<sup>50</sup> Ibid section 8(m)

<sup>51</sup> Ibid section 8(n)

environmental sustainability and will also help in environmental data collection.<sup>52</sup> NESREA has signed an agreement with standard organization Nigeria and consumer protection council for the implementation of the Extended Producer Responsibility on materials particularly Plastic, used Tyres and E-waste the extended produce responsibility is a field of waste management designed to promote the integration of environmental cost associated with goods throughout their lifecycle into the market price of products.<sup>53</sup>

11. Charge fees for tests, investigation and other services performed by the agency<sup>54</sup>, 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.<sup>55</sup> and do such other things are necessary for the efficient performance of the functions of the agency<sup>56</sup>. Giving NESREA the power to charge fees without stipulating the amount to be charged can make them abuse that power by demanding high payment from some individuals or corporation before carrying out it's functions. It would be better for the agency to bear the cost of investigation, after which the evidence of the cost shall be shown to the individual or corporation investigated to be refunded to the agency.

<sup>&</sup>lt;sup>52</sup> NESREA partners with NASRDA at m.guradian.ng/property/nesrea-partners-nasrda accessed on 13/7/2016 at 8.36pm

<sup>&</sup>lt;sup>53</sup> NESREA collaborates with SON, CPC in Nigerian Law Intellectual Properties wacthinc. at nlipw.com/nesrea-collaborates-son-cpc-on-extended-producer-liability accesses 16-4=2018 at 7:52am

<sup>&</sup>lt;sup>54</sup>Ibidsection 8(q)

<sup>&</sup>lt;sup>55</sup>Ibid section 8 (r)

<sup>&</sup>lt;sup>56</sup> Ibid section 8(s)

## 3.5 Institutions conferred with similar power as NESREA on waste managemement

There are other agencies that have similar powers as NESREA when it comes to regulating waste management activities in Nigeria. These agencies are empowered to regulate waste management in some areas of the environment. Example of these agencies are:-

3.5.1 Department of Petroleum Resources (DPR):- Department of Petroleum Resources was created by the petroleum Act of 1969. The Act empowered the minister to create the department with the statutory responsibility of ensuring compliance to petroleum laws, regulations and guidelines on waste management in the petroleum industry. DPR started as a hydrocarbon section under the Ministry of Petroleum in 1970. It was subsequently changed to the department of petroleum resources. The department is empowered to regulate the import, storage and handling of waste in the industry. and to issue permit and license to regulate waste management. The department is also empowered to make regulation, standard and guidelines to control waste management activities in the petroleum industry. The department of petroleum resources wears dual cap as the regulator and the regulated. It regulates environmental activities in the oil and gas sector and is responsible for the development of Nigeria's petroleum resources on the other hand its activities is regulated by the Minister of Petroleum.

In the course of offshore oil and Gas exploration, harmful wastes which require conscientious handling and disposal are generated. These wastes are referred to as E&P waste and are usually contaminated with oil hydrocarbons, complex chemical compounds and metals of

<sup>&</sup>lt;sup>57</sup> Section 4 Petroleum Act

<sup>&</sup>lt;sup>58</sup> Section 3 Petroleum Act

<sup>&</sup>lt;sup>59</sup> Section 9(1) Petroleum Act

<sup>&</sup>lt;sup>60</sup>Olanrewanju. F, " Adequacy of the legal and regulatory framework for managing the environment in Nigeria"

varying toxicity. Sustainable oil and gas resources require appropriate management of the waste generated during offshore activities and to ensure that such waste are properly managed to minimize their potential to cause harm on the environment, the department issued Environmental Guidelines and Standard for Petroleum Industry in Nigeria (EGASPIN) in 1991. EGASPIN established guidelines, standards and procedures for environmental control of waste during Exploration and production operation. EGASPIN contains standard and procedures for evaluation and monitoring of the discharge of different types of E&P waste into the environment. article 3 and 4 of EGASPIN empowers DPR regulate waste from produced sand, deck drainage, produced water, drilling water and ensure that waste generated from such activities are managed and disposed in an environmental friendly manner. The department of petroleum resources is empowered to seal up premises, seize offending substance and impose fines in situation where there is environmental damage. E2

Looking at the waste management power of the department of petroleum resources, its powers is limited to the oil and gas sector. Even though the mandate of NESREA does not include the oil and gas sector, by 7c of the NESREA Act, NESREA is empowered to enforce compliance with international agreements, protocols, treaties and conventions on the environment. By this provision NESREA has power to regulate waste management in the international marine environment. This provision leads to an overlap of function between NESREA and DPR since both have enforcement powers on the international marine environment.

<sup>&</sup>lt;sup>61</sup>Anwuli .I.O, "Environmental Regulation of offshore(E&P) waste management in Nigeria" in Law environment and development journal Vol. 7(2) 2011

<sup>&</sup>lt;sup>62</sup>OghoghoMakinde," environmental policies and it's enforcement in International Comparative legal guide to Environment and climate change 13<sup>th</sup> Edition 2016 at www.aluko-oyebode.com

3.5.2 State environmental protection agency:-state have taken cue from the practice at the federal level and created agencies that will regulate waste management for the protection of the state environment. In protecting the state environment, states exercise similar waste management powers as NESREA. Example of a state agency with similar powers as NESREA is the Lagos State Waste Management Agency the Lagos state waste management agency formerly known as Lagos state refuse disposal Board at inception was established in 1997 by Edict No 9 of 1997. It is the regulatory agency that enforce compliance with waste management laws in Lagos state and it is empowered to enforce sanitation laws, regulations and guidelines on individuals, corporate bodies, organizations and all other categories of persons that fail to obey the environmental sanitation laws of Lagos state.<sup>63</sup>

By virtue of the provision of the Lagos state environmental management protection law 2017, LAWMA is to empowered to enforce compliance with laid down government policies and standards on waste management, issue abatement Notice, issue permit or license before embarking on waste management activities. Another state environmental agency with similar power as NESREA is the Kano state Refuse Management and Sanitation Board of Kano state created by the Refuse Management and Sanitation Board Law responsible for the disposal and management of refuse/waste and other matters connected therewith. The Board is responsible for the overall task of waste management in the State. It is important to note that the functions of the Board are not only restricted to waste management, it includes sanitation of the State particularly streets in the urban areas through sweeping and cleaning and ensuring a clean and conducive environment.

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<sup>&</sup>lt;sup>63</sup> Recent Environmental , waste and effluent laws and regulations at <u>www.oseroghoassociates.com</u> accessed 13/05/2018 at 9:03pm

<sup>&</sup>lt;sup>64</sup> Section 3 Lagos state environmental management protection law 2017

<sup>&</sup>lt;sup>65</sup>Law No. 7. of 2003 Law of Kano State 2003.

The existence of these agencies particularly state agencies have helped reduces the workload of NESREA on waste management in Nigeria. A Cooperation between these agencies will help Nigeria attain a sustainable environment free from the dangerous effect of waste.

# 3.6 Collaborative power of NESREA and Other Agencies on waste management

Environmental protection cannot be achieved without adequate enforcement of environmental regulation. To achieve a sustainable environmental management the NESREA Act empowers NESREA to cooperate where necessary with other government agencies to achieve a sustainable environment, this is provided for in section 29 of the Act which provide thus

"In the exercise of its enforcement powers, NESREA shall co-operate with other government agencies for the removal of pollutant excluding oil and gas related ones discharged into the environment and shall enforce application of best clean-uptechnology currently available and implement the best management practices as appropriate". 66

In giving effect to this provision, NESREA has partnered with some agencies particularly law enforcement agencies for the implementation of best management practice on waste management in Nigeria. These agencies are

**3.6.1 Nigerian custom service**- the Nigeria custom service is the steward of the nation's trade and border management which prevent and suppress smuggling. The Nigeria Custom services has collaborative function with NESREA to enforce compliance with environmental with environmental law in the areas of illegal trade in endangered species, the importation of toxic

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<sup>&</sup>lt;sup>66</sup>Section 29 NESREA Act

hazardous substances and electronic waste into the Country.<sup>67</sup> In the exercise of its collaborative functions, the officials of the Nigerian custom service in 2013 during operation enigma phase 1 exercise (an Interpol coordinated program targeting illegal trade in e-waste) discovered 3 containers containing electronic waste. After inspection by NESREA inspectors the containers were successfully sent back to their ports of origin<sup>68</sup>. Also on the 11<sup>th</sup> day of July 2014, NESREA with the collaboration of the Nigerian Custom services intercepted an e-waste vessel(vessel Louis 5) from Malaysia and Repatriated same vessel of E-waste to its country of Origin. And on the 10<sup>th</sup> January 2013 the vessel MV marivia from the United Kingdom was intercepted by the Nigerian Custom services and repatriated back to its country.<sup>69</sup>

3.6.2 National Agency for Food and Drugs Administration and Control(NAFDAC)- NAFDAC is a Federal Agency under the Federal Ministry of Health that is responsible for regulating and controlling the manufacture, importation, exportation, advert, distribution, sale and use of foods, drugs, cosmetics, medical devices, chemical and packaged water<sup>70</sup>.NESREA in exercising its enforcement powers has collaborated with NAFDAC to identify chemical and drugs whose waste are detrimental to the environment so that the importation of these chemicals makes a person liable for violating environmental regulations. NESREA collaborated with NAFDAC to ensure the proper dumping and disposal of unwholesome and illicit drugs and chemicals in an approved disposal site or sanitary landfill, failure to do so makes a person liable.. This is to protect the safety of persons and aesthetics.

<sup>&</sup>lt;sup>67</sup>www.customs.gov.ng/About/function.php accessed 1/12/2016 10:30am

<sup>68</sup> www.nesrea.gov.ng/news/ewaste.php accessed 10:30am 20th August 2016

<sup>°</sup>ibid

<sup>&</sup>lt;sup>70</sup>www.en.m.wikipedia.org/wiki/national-agency-for-food-and-dugs-administration-control accessed 11:15am 20th August 2016

- 3.6.3 Nigerian Police Force- the Nigerian police force is the principal law enforcement agency in Nigeria. Section 23 of the police Act empowers the police to arrest offenders, detect crime and prevent the commission of offence. In order to ensure more meaningful environmental compliance, monitoring and enforcement, NESREA partners with the Nigerian police force to enforce compliance with environmental laws through arrest of violators of environmental law, and prevention of environmental pollution through seizure of the property or vehicles used in the violation.
- 3.6.4 Standard Organization of Nigeria (SON) the standard organization of Nigeria is the sole statutory body that is vested with the responsibility of regulating ad standardizing the quality of all products in Nigeria. it was established by the Standard Organization of Nigeria Act<sup>71</sup>. The mandate of the organization includes preparation of standard relating to products, measurement, materials processes and services. NESREA has partnered SON to ensure that the extended producer responsibility is implemented in Nigeria by ensuring that products produce or imported into the country are environmentally friendly products. The extended producer responsibility is a concept that promotes total life cycle environmental improvements of products systems by extending the responsibilities to manufacturers of the product to various parts of the products life cycle.<sup>72</sup>

#### 3.7 Conclusion

<sup>'1</sup> Cap s9 L

Lawrence .A , "Enforcement of Environmental Law and waste management industry development" in a paper presented at the Wamason 2<sup>nd</sup> International Summit lagos 22<sup>nd</sup>-24<sup>th</sup> April 2015.

The NESREA Act has given NESREA wide range of powers to use in the exercise of its functions. NESREA is to use these powers to protect the environment, enforce laws and regulations on the environment, maintain environmental standard, create environmental awareness among the public and engage in partnership with other agencies to protect the environment.

This chapter has successfully discussed the nature and scope of NESREA, through to discussing the objective of NESREA, identifying the power and functions of NESREA and the collaborative effort of NESREA with other enforcement agencies in Nigeria.

#### CHAPTER FOUR

# ROLE OF THE NATIONAL ENVIRONMENTAL STANDARD ENFORCEMENT REGULATION AGENCY(NESREA) ACT 2007 IN THE MANAGEMENT OF WASTE IN NIGERIA

#### 4.0 Introduction

This chapter will analyze the relevant provisions of the Act dealing with waste management, the enforcement powers of NESREA, and identify the enforcement powers to be used by NESREA to enforce compliance with the provisions of the Act on waste management. The chapter will also look at the challenges of NESREA in enforcing waste management provisions of the Act and the socio-economic and environmental impact of acceptable standards of waste management. These will enable an understanding of the provisions of the Act regulating waste management and how these provisions are enforced.

# 4.1 Analysis of the Relevant Provision of the NESREA Act on Waste Management in Nigeria

The discharge of waste in large quantities by industries, factories, organizations and individuals has caused a lot of problems on the environment ranging from pollution to land degradation, climate change and desertification. The NESREA Act has taken Measures towards ensuring waste management. This measures taken are contained in some provisions of the Act. For instance section 24 of the NESREA Act which mandates NESREA to create and review effluent limitations for new and existing point sources where it provide thus

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<sup>&</sup>lt;sup>1</sup> Emmanuel O, Helen A, Economic base approach to environmental regulation as a panacea to effective environmental management in Nigeria in journal of law, policy and globalization Vol. 42 2015

The agency shall on the commencement of this Act establish effluent limitations for new point source which shall require application of the best control technology available and the implementation of the best management practice.

### Subsection 2 of section 24 provide thus

The agency shall on the commencement of this Act review effluent limitations for existing point sources which shall require the application of the best management practice.

By this provision limitations are to be created for new point sources<sup>2</sup> and reviewed for existing point sources to regulate the amount of effluent<sup>3</sup> discharged into the environment. A company that is to discharge effluent is required by this provision to limit the amount to be discharged must be limited through the use of best control technology and management practice. Failure to limit the amount of effluent to be discharged makes it an offence which upon conviction makes a person liable to imprisonment to imprisonment for a term not exceeding two years or fine not exceeding Two Hundred Thousand Naira (200,000). For a corporation it shall be liable to pay fine not exceeding One Million Naira Only (1,000,000).

The majority of wastes generated are from companies. The liability for corporation as stated under this provision is not sufficient enough because it will not deter corporations from violating these effluent limitations requirement. Where the owner of the company is imprisoned and the company made to pay fine, it will go a long way to force corporations to comply with these effluent limitations.

Another provision on waste management is Section 25 of the Act which provide thus

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<sup>&</sup>lt;sup>2</sup> Point sources are any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, well, container, vessel or other floating craft from which pollutants are or may be discharged

<sup>&</sup>lt;sup>3</sup> Effluents are chemicals physical or biological or other constituent which are discharged from point sources into the waters in Nigeria

NESREA may make regulation for the purpose of protecting public health and promotion of sound environmental sanitation.

Environmental sanitation is the practice of effecting healthful and hygienic conditions in the environment to promote public health and welfare, improve the quality of life and ensure a sustainable environment through adequate waste management.<sup>4</sup> Therefore Waste management is a constituent of environmental sanitation as environmental sanitation cannot be achieved without adequate waste management.

In executing this provision, two regulations were created on waste management the National Environmental (Sanitation and waste Control) Regulation 2009 and the National Electronic and Electrical Regulation. The National environmental (sanitation and waste control) regulation provide broad legal standards for the sustainable and environmentally friendly collection, handling, treatment, processing and disposal of various categories of waste including litter, effluents, sewage, sludge, solid and semisolid, hazardous and medical healthcare wastes emanating from residential, commercial and institutional facilities.<sup>5</sup> The purpose of this regulation is the adoption of sustainable and environmentally friendly practice in environmental sanitation and waste management to minimize pollution.<sup>6</sup> The regulation makes it mandatory for all owners or occupiers of premises to reduce, reuse and recycle waste to minimize pollution, segregate waste at source, ensure safe disposal, undertake resource recovery and adoptthe imbibe cleaner production principles to conserve raw materials and energy<sup>7</sup>. The Regulation also makes

<sup>&</sup>lt;sup>4</sup> Policy guidelines on solid waste management 2005 by FMEnv at www. Tsaftarmuhalli.blogspot.co.ke/2011/12/policy-guideline-on-solid-waste-management-html?m=1

<sup>&</sup>lt;sup>5</sup>Amokaye O.G: "Municipal Solid waste" in Environmental Law and Practice in Nigeria, MIJ publishers Ltd 2014 pp

<sup>&</sup>lt;sup>6</sup> Lawrence .A, "Enforcement of environmental law and waste management industry development", in a paper presented at the WAMASON international summit, 22<sup>nd</sup>-26<sup>th</sup> April 2016.

<sup>&</sup>lt;sup>7</sup> Section 24

emphasis on the implementation of the Extended Producers Responsibility Programme with priority on the following products- Plastic Materials, Used Tyres and E-waste.

The National Environmental (Electrical/Electronic Sector) Regulations. The regulation regulates the importation, handling and disposal of e-waste across the county. It prohibit the importation of end-of-life, unusable or unserviceable electrical and electronic equipment into the country and mandate every owner of a facility or operator or technician to adopt the 5 R in the management of electronic waste which are reduce, repair, recover, recycle and reuse.

These regulations mentioned above makes it mandatory for individuals to reduce, reuse and recycle waste and to undertake resource recovery. By adopting these waste management techniques cost of supply of raw materials will be reduced since waste materials will be reused or recycled for another purpose. Failure to comply with the provisions of these regulations made pursuant to subsection 1 of section 25 makes a person guilty of an offence which upon conviction will be liable to imprisonment or payment of fine as prescribed by the regulation.

Section 27(1)of the Act makes it an offence for an individual or corporate entity to discharge hazardous substances into the environment where it provide thus

The discharge in such harmful quantities of any hazardous substance into the air or upon the land and the waters of Nigeria or at the adjoining shoreline is prohibited except where such discharge is permitted or authorized under any law in force in Nigeria.

<sup>&</sup>lt;sup>8</sup>Magaret O.F: "Legal development in environmental Law" in IUCN Academy of Environmental Law Journal issue 2012 (1)

<sup>&</sup>lt;sup>9</sup>Olarenwanju F: "An overview of Nigeria Regulatory Approach to E-waste management" in a paper presented at the Eko E-waste submit on the Regulation and management of E-waste in Nigeria 24<sup>TH</sup> -25<sup>TH</sup> February 2011

Hazardous substances are the source of hazardous waste, and these hazardous substances are usually chemicals, drugs, medical devices e.t.c. This provision prohibits the discharge in large quantities of hazardous substance in any part of Nigeria except where such discharge is permitted under any law in Nigeria. An understanding of this provisions shows that it does not completely prohibit the discharge of hazardous substance, rather it prohibits discharge of hazardous substance in large quantities which makes the provision faulty because the discharge of hazardous substance on the environment is not supposed to be permitted.

The above provisions shows that to ensure adherence to waste management practice under the Act and its regulations, the Act make it an offence for any person or corporation who fail to comply with the provision of the Act on waste management. This goes to show that the NESREA Act uses criminal sanctions to ensure compliance with the provisions of the Act. Civil actions cannot be instituted by a private individual who has suffered from the failure of a person or corporation to manage waste in accordance with the requirement of the Act.

#### 4.2 Enforcement Powers of NESREA

Enforcement is the set of action that government or agencies take to correct or halt behavior that fails to comply with environmental management requirement. It seeks to ensure that the ambitious goals of the NESREA Act is realized.<sup>10</sup> The NESREA Act has given NESREA its agency wide range of enforcement powers where the provisions of the Act are contravened or violated. These powers range from power to impose fines, cancel permits and shut down

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<sup>&</sup>lt;sup>10</sup>Ladan M T; "Legal Issues in Environmental Sanitation and waste management in Nigeria- Role of environmental Court" in a paper presented at a 3 day national seminar for Magistrate on environmental and sanitation laws in Nigeria 5<sup>th</sup> -8<sup>th</sup> October 2015

offending facilities among others.<sup>11</sup> Section 30 of the NESREA Act provides for the enforcement powers of NESREA these powers granted NESREA are

➤ Inspection and Searches- inspection and searches is one of the powers granted NESREA under section 30 (1) (a) of the Act which provide thus

an officer of the agency in the course of duty at any time and on production of his certificate of designation if so required enter and search with a warrant issued by a court any premises for the purpose of conducting inspection, searching and taking samples for analysis which he reasonably believes carries out activities or store goods which contravene environmental standard.

By this provision an officer of NESREA is empowered to enter any premises with a warrant for the purpose of conducting inspection and searches where he believes the provision of the Act has been violated. During inspection and searches authorized officers are empowered to request for any item, appliance or device used in relation to environmental degradation. Inspection and searches is the most important enforcement methodologies the purpose of which is to ensure that waste management laws applicable to individuals, industries and companies are obeyed. It also helps to know who has violated the Act in order to be able to take legal actions against the person.<sup>12</sup>

> Seizure and detention:- seizure involves seizing any material used to pollute the environment. section 30 (1) (c) of the NESREA Act empowers an officer of the agency to

<sup>&</sup>lt;sup>11</sup>Oghogo M: "environmental enforcement in Nigeria" in International Comparative legal guide to environment and climate change law 2016 13<sup>th</sup> edition at www.ICLG.co.uk

<sup>&</sup>lt;sup>12</sup> Hakeem I, Joseph O. rethinking environmental law enforcement in Nigeria in Beijing law review December 2014 Vol. 5 p308

seize and detain any article or substance by means of or in relation to which he reasonably believes any provision of the Act has been contravened. Seizure is usually in the public interest in order to forestall further pollution by putting the offending facility, item or substance out of circulation. <sup>13</sup>Articles that may be seized and detained by the Act include vehicles, containers, vessels, and land used in the pollution of the environment.

Suspension, sealing or close down:- sealing or close down involves the sealing or close down of an area or site which is being directly or indirectly used for the purpose of dumping or depositing any harmful waste. The NESREA Act empowers an officer of the agency to obtain an order of court to suspend activities, seal or close down premises, including land, vehicle, tent vessel, floating craft or other structure whatsoever used for the pollution of the environment.<sup>14</sup>

Other powers of NESREA not expressly stated in section 30 of the NESREA Act are:-

Permits and license:- permits and license serve as the most effective measures of enforcement of environmental laws. NESREA issues Permits and license to company or persons after registering with the Agency as permission to carry out certain activities.

15 These permits and license are used as monitoring devices to regulate the activities that are potential generators of waste. The issuance of a permit or license carries with it an understanding that the holder will forfeit same upon breach of provision of any law or he conditions stipulated on the grant of permit. Example of instances where permit or license are granted is where a person wants to run a waste management facility of facility

<sup>15</sup> Section 7(g) NESREA Act

<sup>&</sup>lt;sup>13</sup> Margaret .O.F; Overview of recent legal and policy initiative facilitated by NESREA in I.U.C.N Academy of Environmental Law e-journal vol.1 2012

<sup>&</sup>lt;sup>14</sup> Section 30(1) (g)

<sup>&</sup>lt;sup>16</sup>Bukola .A; in International comparative legal guide to Environmental Law 2006 at <u>www.ICLG</u>.co.uk

that could discharge waste, permission is granted to that person in the form of permit or license on ground that such facility will be operated in a manner that will not be detrimental to the environment.

- ➤ Sanctions:- the several provisions of the NESREA Act prescribes sanction against violators of the provisions of the Act. This sanction could be in the form of fine or imprisonment. Such fines ranges from 50k-200k in case of an individual and 200,000 to 5,000,000 in case of a body corporate. While in the case of imprisonment it ranges from 6 months to 2years imprisonment.¹¹ Example of one of such provision is section 27(3) of the NESREA Act which provides that any body found guilty of violating the provision of section 27 shall be liable to a fine not exceeding 1.000.000 or imprisonment for a term not exceeding 5 years. Sanctions usually serve as deterrence to would be violators of environmental laws.
- ➤ **Prosecution:**-any officer of the agency may with the consent of the Attorney General of the federation conduct criminal proceedings in respect of offences under this Act or regulation made under this Act<sup>18</sup>, and in such proceeding for an offence under this Act or any regulation made under it, the provisions of the criminal procedure Act depending on the venue, the criminal procedure code shall with such modification as the circumstances may require, apply in respect of such matter to the same extent as they apply to the trial of offences. <sup>19</sup> Offences which could be prosecuted an officer of the agency are the intentional disposal of waste without management, failure to comply with notices, breach of license

<sup>&</sup>lt;sup>17</sup> Emmanuel .O, Helen. A ;" economic based approach to environmental regulation as a panacea to effective environmental management in Nigeria" in Journal of law policy and globalization Vol. 42 2015 at <a href="https://www.iiste.org">www.iiste.org</a> 8-16 <sup>18</sup> Section 32(3) NESREA Act

<sup>&</sup>lt;sup>19</sup> Section 32(4)

and permit by waste managers, and contravention of prohibitions. In the process of prosecution the officer of the agency is to proof his case beyond reasonable doubt and shall tender documents particularly photograph as proof of offence.<sup>20</sup> Even though the NESREA Act empowers the officer of the agency to prosecute waste offenders, this power is not absolute. Permission have to be sought by NESREA from the Attorney General before prosecuting a waste management case.

- Regulation by association/union:- Regulation by association, is the process where associations or unions enforce compliance with waste management through drafting of standards with the consent of NESREA that would regulate the activities of members of this association. During regulation by Association NESREA negotiate with this association to create standards to be enforced by the association. The association regulates these activities on behalf of NESREA by ensuring that the members of the association comply with the entire waste management standard created by the Association through frequent inspection of the premises or facility. An example of self regulation by Association is the Regulation by association of waste managers of Nigeria, this association may draft standards that will be enforceable by the Association to be complied with by waste management facilities and failure to comply with this standard will lead to suspension of license or permit by NESREA.
- > Self-Regulation:- Self regulation is the process whereby an organization is asked or volunteers to monitor its own adherence to legal, ethical or safety standards, rather than have an outside or independent agency such as a government institution monitor and

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<sup>&</sup>lt;sup>20</sup>Fagbohun O.A: "Strategies in the prosecution of environmental cases" in a presentation made at the Nigerian Institute of Advanced Legal Studies Akoka. 20<sup>th</sup>-22<sup>nd</sup> March 2013

enforce such standards. Self-regulation is the delegation of public policy tasks to the private actors in an institutional form with the objective being the regulation of waste. <sup>21</sup>NESREA undertakes the enforced self-regulation a form of regulation that involves negotiation between NESREA and individual firms to produce regulations in line with the Act that will regulate waste management. The purpose of self-regulation is to enable firm propose its own regulatory standards to avoid harsher standards imposed by the state. However where a firm or industry fails to enforce this regulation it created NESREA can enforced such standards on the firm.

## 4.3 Challenges of NESREA on waste management in Nigeria

In the exercise of its functions to regulate waste and ensure it's management, NESREA is faced with many challenges that have affected it's ability to effectively regulate waste in Nigeria. Some of the challenges identified by some authors are Information shortcoming, <sup>22</sup> Lack of Funds, <sup>23</sup>Threats from powerful individuals, <sup>24</sup>Corruption and bad governance, Lack of Modern technology, <sup>25</sup> Political Instability. <sup>26</sup> The challenges identified during the course of these study are:-

- > Inadequate awareness of the public on waste management offences under the Act
- ➤ Inadequate funds to investigate and identify waste offenders

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<sup>&</sup>lt;sup>21</sup> Ong. R: Self regulation at www.opnaccess.leidenuniv.n>handle accessed 16-05-2018 10:22am

<sup>&</sup>lt;sup>22</sup>Amokaye O.G: Environmental Pollution and challenges of environmental governance in Nigeria in British Journal of Art and social sciences Vol.10:1 2012

<sup>&</sup>lt;sup>23</sup> Hakeem I, Joseph O.T: Rethinking Environmental Enforcement in Nigeria in Beijing Law Review 2014 Vol. 5 p 318 <sup>24</sup>Nnamdi I: Safe disposal of Municipal waste in Nigeria: perspective to a right based approach in AfeBabalola University Journal of Sustainable development, law and policy 2014 vol 3:1

<sup>&</sup>lt;sup>25</sup> Miranda A: NESREA on E-Waste in Nigeria in a paper presented at the 3<sup>rd</sup> annual meeting of global E-waste management network, san Francisco U.S.A 15<sup>th</sup>-19<sup>th</sup>july 2013

<sup>&</sup>lt;sup>26</sup>Adegoroye A.: the challenges of Environmental Enforcement in Africa: the Nigeria Experience a paper presented at the 3<sup>rd</sup> International Conference on Environmental Enforcement Bamako 13<sup>th</sup>-15<sup>th</sup> September 1997

- > Difficulty in prosecuting waste management cases since permission has to be sought from the office of the Attorney General before prosecuting a waste offender
- Inadequacy of sanctions to waste offenders because the Act only prescribe imprisonment of payment of fine without insisting on clean up or restoration of the environment to its previous state before the waste offence
- ➤ Difficulty in accessing dumpsite because most dumpsite are situated in remote places which could not be accessible to NESREA.
- Lack of fund to detect, investigate and arrest waste offenders.

These challenges faced by NESREA have made it difficult for NESREA to exercise its enforcement powers on waste offenders in Nigeria. The effect of which is the impossibility of the Act to achieve a sustainable environment with effective waste management practice.

## 4.4Socio economic and environmental impact of acceptable standard of waste management.

The waste sector and its individual operations have the potential to contribute in a numerous ways to a green economy. An acceptable standard of waste management have a lot of impact in an economy, these impacts could be in the form of economic, social or environmental impact.<sup>27</sup>

- a. Social Impact:- the social impact of an acceptable standard of waste management in the economy is in the form of the following:-
  - Reduced medical cost through Improved human health and safety for instance where waste collected and properly managed or contained in an area away from the public

<sup>&</sup>lt;sup>27</sup> Rachel .W: "sustainable Solid Waste Management and the Green economy at <u>www.ISWA.org</u> accessed 20<sup>th</sup> may 2017

can bring health and safety benefits, a decrease in rats and mosquitos which are vectors of diseases such as leptospirosis, malaria, dengue fever respectively.<sup>28</sup>

- ➤ Poverty alleviation through the creation of job in the reuse and recycling industry bringing about less unemployment
- ➤ Improved working conditions through provision of safe working condition or waste managers who are usually exposed to the hazards associated with waste especially hazardous waste.<sup>29</sup>
- ➤ Improved public amenity with the absence of odour, the absence of a general rundown of public spaces with litters.
- b. Economic Impact- where waste is managed in an acceptable manner it brings about economic gains and savings through the following
  - ➤ Saving cost through the use of the waste prevention measures i.e the cost of managing waste will be reduced or saved where the waste is prevented.<sup>30</sup>
  - ➤ Availability of secondary raw materials through recycling to be used by industries during production
  - ➤ Availability of land to be used for agriculture and other economic gains and also the availability of fertilizers from composting of residual waste.

<sup>&</sup>lt;sup>28</sup> Waste management : unrealized environmental and Economic benefits for chicagoland at <a href="www.delta-institute.org>delta>uploads">www.delta-institute.org>delta>uploads</a> accessed 17/5/2018 at 12:23pm

<sup>&</sup>lt;sup>29</sup>Jumba M: Benefits of proper solid waste management presentation made at UkandaKwale County, Kenya 20/1/2014

<sup>&</sup>lt;sup>30</sup> Benefits of waste recycling to the economy at <u>www.infoguidenigeria.com/waste-recycling-benefits/</u> accessed 17/05/2018 at 12:05pm

- c. Environmental Impact- there is environmental benefit associated with an acceptable standard of waste management, these benefits are<sup>31</sup>
  - Environmental protection through the preservations of biodiversity, water quality, air quality and land quality for the benefit of future generations.
  - A reduction in the release of Green house gases which will go a long way in saving the public from climate change
  - Reduce demand on Natural resources and the associated environmental impact of the extraction, harvesting and processing of those resources
  - Conservation of natural resources and fossil fuels.

#### 4.5 Conclusion

The NESREA Act 2007 in order to ensure effective waste management in Nigeria provided for criminal sanctions upon any person or corporation who fail to manage waste in an environmentally sound manner. These sanctions are in the form of imprisonment or payment of fine. Strict implementations of this sanctions will help achieve a sustainable environment and ensure effective waste management.

This chapter discussed the role of the NESREA Act on waste management in Nigeria by analyzing the relevant provisions of the Act on waste management in Nigeria. The chapter identified the enforcement mechanism provided by the Act to be used by NESREA during

<sup>&</sup>lt;sup>31</sup> The environmental , social and economic benefits of waste prevention at <a href="https://www.wrap.org.uk/content/environmental-social-and-economic-benefit-of-waste-preventionaccessed">www.wrap.org.uk/content/environmental-social-and-economic-benefit-of-waste-preventionaccessed</a> 17/05/2018 at 12:14pm

enforcing compliance with the provisions of the Act and the challenges faced by NESREA while enforcing compliance with the provisions of the Act.

#### CHAPTER FIVE

### SUMMARY, OBSERVATION, RECOMMENDATION AND CONCLUSION

#### 5.1Summary

This chapter summarizes the previous chapters with the view of providing observation and recommendations to the problems identified.

The study conducted an examination of the NESREA Act 2007 on waste management in Nigeria, having concluded the research, below is a summary of what was done throughout the research work.

Chapter one of this work dealt with the general introduction to the entire work. It consists of subtopics which were considered to set the ball rolling. The subtopics are; the background to the study, objectives of the study, statement of the problem, scope of the study, methodology and literature review.

Chapter two of this work gave a conceptual clarification of terms employed in the research by looking at the meaning of waste and waste management. In doing that numerous definitions from books andlegislations were provided. The chapter also looked at the different categories of wastes and the different waste management methods were identified.

The chapter equally discussed the meaning of environmental standard and the legal framework for the regulation of waste in Nigeria where the Harmful Waste Act and the Mineral and Mining Act were discussed. The study showed that waste has a general acceptable definition but is usually defined as any material or substance that is no longer wanted or that is disposed

of or discarded. It was also discovered that the NESREA Act did not provide a definition of waste that will be referred to while defining waste in Nigeria.

Chapter three of this work discussed the Nature and scope of NESREA by discussing, the establishment, structure, objective, powers and functions of NESREA under the NESREA Act. The main function of NESREA is enforcing compliance with environmental laws, legislations, standard and international instruments. The study discovered that during enforcing compliance with the provisions of the Act NESREA collaborates with some enforcement agencies like Nigerian Custom Service and the Nigerian Police Force to ensure compliance with the provisions of the Act.

Chapter four of this work focused on the Role of the NESREA Act 2007 in the management of waste in Nigeria. In this chapter analysis was made of the relevant section of the Act dealing with environmental standard of waste management particularly sections 24, 25 and 27 of the NESREA Act 2007. The chapter identified the enforcement powers of NESREA on waste management among which are the power to search, arrest and sanction a violator. The chapter also focused on the challenges of waste management with the major challenge being the lack of funds and the inaccessibility of dumpsite and socio-economic and environmental impact of acceptable standard of waste management in Nigeria.

Chapter five finally bring the study to an end by discussing the observations, findings and recommendations.

# 5.2 Observations (Findings)

After examining the NESREA Act on waste management, the following findings were made

- The NESREA Act in order to ensure effective waste management in Nigeria, made it an offence for any person or corporation to fail to manage waste in an environmental manner and created criminal sanctions of imprisonment or payment of fine on such waste offenders. This sanctions deter individuals and corporations from committing waste offences and adopting a sustainable waste management practice. However restoration is not included among the sanctions provided for by the Act which when included would have also helped immensely in encouraging waste management.
- The NESREA Act empowers NESREA to enforce compliance with the requirement of the Act through the use, searches, permits and licensing, sealing, suspension, prosecution of waste offenders.
- ➤ The challenges faced by NESREA for instance, lack of awareness, inaccessibility of dumpsite, lack of funds to investigate and detect waste offenders and the inability to prosecute waste management cases has made it difficult to for the agency to enforce compliance with the provisions of the Act on waste management.
- ➤ The power to prosecute waste offenders is not absolute as recourse has to be made to the office of the attorney for the Agency to prosecute an action.
- The Act does not provide for the institution of civil action by a person who suffer from the failure of a person or corporation to manage waste. These slows the aim of achieving sustainable environment because with civil actions, a person could

bring an action for compensation or damages, where NESREA fail to do so which will help encourage effective waste management among the citizens.

#### **5.3 Recommendations**

From the findings made above the following is recommended

- The NESREA Act should be amended to include restoration of the environment by a violator where damage has been made to the environment. This will improve adherence to best waste management practice by waste managers, reason being that where an offender or violator who causes damage to the environment is sanctioned to restore the environment to its original state before the damage, it will force such an offender to exercise care in the future while carrying out waste management activities.
- Government should make sufficient provisions of funds to NESREA to enable it fulfill the aim of the Act on ensuring adequate and effective waste management. With the availability of sufficient funds, NESREA will be able to effectively execute its enforcement powers in Nigeria
- The Act should be amended to make provision for the issuance of a Fiat to NESREA by the Attorney General, giving NESREA power to prosecute all waste management offence without having to seek permission from the Attorney General for every case to be prosecuted. This will motivate NESREA to prosecute waste offences and promote environmental compliance among the citizens.

The Act should be amended to include public participation in environmental management by involving communities, private and public organizations in environmental management. This is because public participation is important in enforcement of environmental laws since involving the public in problem solving will play a valuable role in promoting environmental compliance.

#### **5.4 Conclusion**

Having realized that the environment supplies us with all our resources, and that it forms the basis for our developmental advancement, it becomes necessary that the problem of waste affecting the Nigerian environment be addressed and brought to an end. It is safe to say that each generation is entitled to use the environment to their satisfaction therefore waste should not be dealt with in a manner that will affect the interests of future generations. It is worthy to note that Preservation of the environment is not only for the benefit of the future generation it is also for the benefit of the present generation since it will preserve the fertility of land and land resources and increase in generation of revenue to the government. To achieve the goal of preserving the environment there is need for every individual to be conscious of its surrounding environment and ensure that waste around your vicinity is properly managed and disposed without having to wait for the waste management agencies.

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