

# HAZARDOUS WASTES CONTROL IN NIGERIA: A LEGAL ANALYSIS

by

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## ABSTRACT

Wastes whether in solid or in any form are generated by the activities of man. Hazardous wastes as the name applies are not only inimical to human health but to the ecosystem and the entire human environment because of its pollutant nature. The unchecked activities of man has severally led to the degradation of human environment at all levels of human activities both domestic, industrial, etc, hence the need to fashion out regulatory regime to check and police the human activities occasioning the discharge of hazardous wastes into the environment. This work therefore examines the control and management of hazardous wastes in Nigeria through legal instruments in order to know whether Nigeria has actually had sufficient legal vigour to combat the menace of hazardous wastes. This work considers of course not all legal instruments on control of hazardous wastes particularly as it affect Africa. This work x-rays major sources of hazardous waste in Nigeria. This work furthermore, spotlights inter alia, the collection of hazardous wastes; the treatment of hazardous wastes and the disposal of hazardous wastes in Nigeria via legal instrumentalities. It lings on Federal and not State's legal instruments.

**KEYWORDS:** Hazardous wastes generation, sources of hazardous wastes, collection and disposal of hazardous wastes, national statutory regulations on hazardous wastes control, international treaties on hazardous wastes control

## 1. INTRODUCTION

Wastes in Nigeria are generated from different sources such as domestic waste and industrial waste. Both industrial and domestic waste could be hazardous depending on their components, characteristics and mode of discharge. Waste could also be liquid or solid with harmful or hazardous components thereby constituting great and immeasurable threats to human health and occasioning environmental degradation. It is not gainsaying that the above position is the resultant effect of the activities of man in both corporate and private capacities, with the view of making ends meet, and achieving not just economic but social, cultural and political sustainability.

Environmental awareness on hazardous waste in Nigeria was never brought to the fore in Nigeria until 1988. In 1988, Nigerian officials discovered eight hundred open drums, containing eight million pounds of unprotected industrial and nuclear waste, in a local resident's backyard. An Italian exporter, without disclosing the contents of the drums, had rented the lot from the owner for \$100 a month. By the time the barrels were discovered, they had already leaked into an adjacent river. Some of the barrels were dumped by residents and used to store drinking water. The waste plagued the local population; residents suffered chemical burns, paralysis, premature births, and fatalities.<sup>1</sup>

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<sup>1</sup> Andrew Webster-Main. 'Keeping Africa Out of the Global Backyard: A Comparative Study of the Basel and Bamako Conventions' [2002] (26)(1) *Environs*, 65.

However, with the dumping of toxic waste in Koko, in Delta State, and with the public outcry that followed, concern about the protection of the Nigerian environment became an issue of national discuss. The government of the federation responded by enacting the Harmful Waste (Special Criminal Provision) Act<sup>2</sup>, the Federal Environmental Protection Act (FEPA) which is now repealed and replaced with the National Environmental Standards Regulations Enforcement Agency (NESREA) Act 2007,<sup>3</sup> and the Environmental Impact Assessment Act<sup>4</sup>, all in the same year 1988. The period before this time has become popularly referred to as the "pre-environmental era"<sup>4</sup>. Note that the above legislations were not targeted at oil and gas pollution but at general environmental protection in Nigeria including the scourges of hazardous wastes.

Thus, laws and regulations are being made in order to manage and control the said activities of man and also, to ensure the mitigation of their effects, considering the environmental and health implications, as environmental issues defy boundaries. Therefore, Nigeria has, through her various institutions made legislations and regulations pursuant there to, in order to tackle the menace of environmental pollution and or degradation occasioned by hazardous waste which in all intent and purpose is a global phenomenon.

## 2. THE CONCEPT OF WASTE VIS-A-VIS HAZARDOUS/TOXIC WASTES

The term waste is a difficult term to define. To compound the problem of definition, neither the NESREA Act nor the Harmful wastes (special criminal provision) Act, the two substantive federal laws in Nigeria that seek to regulate wastes generation and Management in Nigeria define the term<sup>5</sup>. The Courts in Nigeria have also not defined the term<sup>6</sup>.

However, the Nuclear Safety and Radiation Protection law 1995<sup>7</sup> define waste as: (a) any substance which constitutes 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 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 provide for in this decree is discharged, discarded or otherwise deal with as if it were waste shall for the purpose of this decree be presumed to be waste until the contrary is proved<sup>8</sup>.

Also, in the case of *Long v. Brooke*<sup>9</sup> there was an appeal by a Defendant who had been convicted of depositing waste contrary to S.3 of the Control of Pollution Act of the United Kingdom, 1974. He was the occupier of a disused quarry, the sheer slopes had been re-graded and he wished to cover the surface with soil which he could afford. He was approached by Wimpey Ltd, who had substantial quantities of sub-soil they wished to dispose of from a nearby site. They paid the Defendant £20.50 per load which covered the cost of spreading the tipped top soil with a bulldozer but no more. In dismissing the appeal, the Crown Court held that one man's waste may be another man's valuable material. On its true construction the control of

<sup>2</sup> Cap H.I, LFN 2004.

<sup>3</sup> Cap164, LFN 2007 FEPA Act used to be Cap 131 LFN 1990 as amended by the Environmental Protection Agency Decree No. 59 of 1992.

<sup>4</sup> Cap E12, LFN 2004.

<sup>4</sup> O. Fagbohun, *The law of Oil and Environmental Restoration* (Lagos; Odada Publishers, 2010) p. 188.

<sup>5</sup> A.K Usman, *Environmental Protection Law and Practice* (Ibadan Ababa Press Ltd, 2012) p. 92.

<sup>6</sup> Ibid.

<sup>7</sup> Cap N 142, LFN 2004.

<sup>8</sup> Usman (n5) 92-93.

<sup>9</sup> 1980 Criminal Law Rep. 109.

pollution Act defines wastes from the point of view of the person discharging the material, as Wimpey had disposed of the material as 'waste'; the Appellant required a disposal licence and the fact that as occupier of the land he had used for the discarded material did not prevent its constituting a waste under S.30 of the Act.

Again, in *Nottingham Shire Country Council v. Berridge Incinerators* the Court held *inter alia*:

*It is of course, a truism that one man's raw waste is another man's raw material, the fact that a price is paid by the collector of the material to its originator, is no doubt relevant, but I do not regard it as crucial. If I have an old fire place to dispose to a passing rag and bone man, its character as waste is not affected by whether or not I can persuade the latter to pay me 50p for it. In my judgment, the correct approach is to regard the material from the point of view of the person who produced it. Is it something which is produced as a product or even a by-product of his business or is it something to be disposed of as useless?*<sup>10</sup>

As posited above in Nigeria, the term 'waste' simple *ceteris paribus* is not defined in any statute, but the Harmful Waste (Special Criminal Provisions etc.) Act under section 15 defined harmful waste as follows:

*Harmful waste means any injurious poisonous, toxic or noxious substance and, in particular, includes nuclear waste emitting any radioactive substance if the waste is in such quantity, whether with any other 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 harmful waste.*<sup>11</sup>

From the context of the definition of harmful waste by the Harmful Waste (Special Criminal Provisions etc.) Act, these wastes need not be harmful. It is sufficient if they generate a risk of death or injury either right away or in the future.<sup>12</sup>

The National Guidelines and Standards for Environmental Pollution Control in Nigeria define hazardous wastes as a by-product of society that can pose a substantial or potential hazard to human health or the environment when it is improperly disposed.<sup>13</sup> The United Nations Environmental Programme (UNEP) in December, 1985, gave a working definition of the term hazardous waste as follows:

*Hazardous wastes means waste (solid, sludge, liquids and containerized gases) other than radioactive (and infectious) wastes which, by reason of their chemical activity or toxic, explosive, corrosive or other characteristics, cause danger or likely will cause danger to health or the environment, whether alone or when coming in contact with other wastes...*<sup>14</sup>

<sup>10</sup> (unreported) QBD of 14<sup>th</sup> April 1981.

<sup>11</sup> Ehioghelua, Environmental Protection Law (Warri, New Pages Law Publishing Co., 2007) pp. 88-89; See Cap. H1, Laws of the Federation of Nigeria (LFN) 2004; See also V. E. Kalu, Toxic Wastes and the Nigerian Environment: An Appraisal.

<sup>12</sup> See Uchegbu, A, Transboundary Movement of Hazardous Wastes in International Law" In Omotola, J A (ed) Environmental Laws and Compensation in Nigeria, Lagos University Press, 1990, 206.

<sup>13</sup> 2b National definition of hazardous waste - Basel Convention <[www.basel.int](http://www.basel.int)>natreporting >compl> accessed 11 April 2019.

<sup>14</sup> R. Rastone et al "The Safe Disposal of Hazardous Waste" World Bank Technical Paper No. 983, Washington D.C. 1989.

Simply defined, a hazardous waste is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment. Hazardous waste is generated from many sources, ranging from industrial manufacturing process wastes to batteries and may come in many forms, including liquids, solids gases, and sludges.<sup>15</sup>

### 3. MAJOR SOURCES OF HAZARDOUS WASTES IN NIGERIA

Most hazardous wastes are produced from a wide range of sector mainly in the manufacturing of products for consumption or further industrial application. These include and not limited to: Agricultural land and agro industry, domestic/household, mines and mineral processing sites, health care facilities, commercial sites, institutional, industrial, solid waste disposal sites, contaminated sites, building materials and activities that involve radioactive elements. Table 1 shows the widespread distribution of hazardous wastes. Many sectors of the economy are victims of hazardous wastes production whether directly or /and indirectly. Some industries lack the capacity and capability to properly handle these wastes; they resort to indiscriminate disposal as the only way to avoid costs and procedures associated with proper management.

**Table 1: Some Major Hazardous Wastes Sources**

Sector	Source	Hazardous Waste
Industrial Hazardous Wastes	Petroleum fuels and gas flaring	Liquid petroleum hydro- carbons soot and carbon monoxide, acid rain, impurities like phenol and cyanides in the waste stream, and sludge flushed from the storage tanks.
Mines and Mineral Processing, Electricity Generating Companies	Uranium mining and processing	Lead, sulphur, arsenic, mercury, cyanide, spent reactor rods, beryllium, cadmium and brominates flame-retardants.
Health Care Centres/ Medical Wastes	Hospitals, clinics and medical laboratory	Pathological wastes, infectious needles, contaminated blood, chemotherapeutic agents, lab cultures, expired and contaminated vaccines and drugs, unused radiotherapy liquid, anaesthetic gas, corrosive, genotoxic waste.
Agricultural Land and Agro-Industry	Farms	Pesticides, fertilizers, and hazardous veterinary product wastes.
Commercial Waste	Gasoline stations, dry cleaners and automobile repair and servicing shops (workshops), airports, municipal parks, Electrical transformers	Waste oils, hydraulic fluids, halogenated solvents, polychlorinated Biphenyls.
Small Scale Industry	Metal treating(electro-plating, etching, anodizing, galvanizing),	Acids, heavy metals Solvents, acids, silver Cadmium, mineral

<sup>15</sup> Learn the Basics of Hazardous Waste <<https://www.epa.gov/hw/learn-basis-hazardous-waste>> accessed 11 April 2019.

	Photofinishing Textile processing Printing Leather tanning	acids Solvents, inks and dyes Solvents, chromium.
Large Scale industry	Bauxite processing Oil refining Petrochemical manufacture Chemical/pharmaceutical manufacture Chlorine production	Red muds Spent catalysts Oily wastes Tarry residues, solvent  Mercury.
Building and Roofing Industries	Building and roofing materials	Materials made of asbestos and copper
Household Hazardous Waste	Residential Homes	Paints, cleaners, oils, batteries, pesticides, stains, varnishes, solvents, and other materials or products containing volatile chemicals that can catch fire, react or explode, or that are corrosive or toxic.

Source<sup>16</sup>

#### 4. STATUTORY REGULATIONS ON HAZARDOUS WASTES IN NIGERIA

There are several statutory regulations on hazardous waste in Nigeria such as the NESREA, the Harmful Waste (Special Criminal Provision etc) Act, the Criminal Code, the Constitution of the Federal Republic of Nigeria, etc.

##### National Environmental Standard and Regulation Enforcement Agency (NESREA) Act 2007<sup>17</sup>

The National Environmental Standards and Regulation Enforcement Agency (NESREA) Act 2007 repealed the Federal Environmental Protection Agency (FEPA) Act. NESREA Act is saddled with the responsibility of enforcing environmental laws, regulations and standards in deterring people, industries and organizations from polluting and degrading the environment.<sup>18</sup> It is made up of laws and regulations geared at the protection and sustainable development of the environment and its natural resources.

Section 7 provides the Agency with the power to enforce compliance with laws, guidelines, policies and standard on environmental matters local and international, environmental sanitation, pollution prevention and control through monitory and regulatory measures.<sup>19</sup>

<sup>16</sup> Modified from; C.C. Amadi, O.C. Okeke and D.C. Amadi. 'Hazardous Waste Management: A Review Of Principles And Methods' [2017] (3)(8) *International Journal of Advanced Academic Research, Sciences, Technology & Engineering*, pp. 2-3; Hazardous Waste in Nigeria: Problems and Challenges-SciTech Africa <<https://scitechafrika.com>>2017/07/04> accessed 11 April 2019; What is Medical Waste? Medical Waste Definition, Types, Examples, and More <<https://medprodisposal.com>>MedicalWasteDisposal> accessed 11 April 2019; Household Hazardous Waste-Defined Term [https://definedterm.com/household\\_hazardous\\_waste](https://definedterm.com/household_hazardous_waste) accessed 11 April 2019; <sup>16</sup>United Nations Environmental Protection Agency (EPA), Household Hazardous Waste (HHW) <https://www.epa.gov/hw/household-hazardous-waste-hhw> accessed 11 April 2019.

<sup>17</sup> (n3) Cap F164 LFN, 2007.

<sup>18</sup> (n3) NESREA <<http://www.nesrea.ng/about-us/>> accessed 28 November 2017.

<sup>19</sup> *Ibid*, S. 7.

Section 8(1) (k) empowers the Agency to make and review regulations on air and water quality, effluent limitations, control of harmful substance and other forms of environmental pollution and sanitation.<sup>20</sup> Section 27 provides that the discharge of hazardous substance into the environment without lawful authority is prohibited. This offence is punishable under sub-section (2) and (3) of section 27 with a fine not exceeding ₦1, 000.000 (one million Naira) and an imprisonment term of five years<sup>21</sup> for a company, there is an additional fine of ₦50.000 for every day the offence persists.

Note that NESREA Act and Regulations constitutes a new dawn because in both purpose and content, they address the preponderance of obsolete environmental regulations, standards and enforcement mechanisms, with which have resulted over the years because of non-compliance with environmental law.<sup>22</sup>

### **Harmful Waste (Special Criminal Provisions) Act<sup>23</sup>**

Due to the toxic waste saga in Koko, Delta State in 1988, the federal Government was challenged to enact the above legislation to deal with hazardous and toxic wastes. Section 1 provides that it is unlawful to purchase, sell, offer for sale, import, transport, transit, deposit or store any harmful waste.<sup>24</sup> A person commits an offence if he does the act or omits to do the act for the purpose of enabling, aiding, counselling, procuring, abetting a person to committing the offence. The Act prohibits any person without lawful authority from carrying, dumping or depositing harmful waste in the air, land or waters of Nigeria.

Section 6 of the Act provides that offenders shall be sentenced to life imprisonment and also will forfeit land or anything used to commit the offence.<sup>25</sup> Section 7 provides punishment for any conniving, consenting or negligent officer where the offence is committed by a company.<sup>26</sup> Section 3 provides that when two or more persons form a common intention to persecute an unlawful purpose in conjunction with one another and in the prosecution of that purpose a crime is committed, each of those persons shall be deemed to have committed the crime.<sup>27</sup>

Section 4 (1) provides that when a person counsels another to commit a crime under this Act, and a crime is actually committed after such counsel by the person to whom the counsel was given, it is immaterial that the crime:

- (a) Actually committed is the same as the one counselled or a different one; or
- (b) Is committed in that way counselled or in a different way; provided that in either case, the facts constituting the crime actually committed are a probable consequence of carrying out the counsel.

Sub-section (2) of this section provides that a person who gives any counsel as specified in sub-section (1) of this section shall be deemed to have counselled the other person to commit the crime actually committed by him.<sup>28</sup>

<sup>20</sup> Ibid, S. 8.

<sup>21</sup> S. 27(2), (3).

<sup>22</sup> M.T. Liodan. 'Review of NESREA Act 2007 and Regulation in 2009-2011: A New Dawn in Environmental Compliance and Enforcement in Nigeria' [2012] (8) *Law, Environment and Development Journal*, 121.

<sup>23</sup> (n1) Cap H1 LFN, 2004.

<sup>24</sup> Ibid, S. 1.

<sup>25</sup> Ibid, S. 6.

<sup>26</sup> Ibid, S. 7.

<sup>27</sup> Ibid, S. 3.

<sup>28</sup> Ibid, S. 4 (1), (2).

Section 5 provides that any person who assists another who has, to his knowledge, committed a crime under this Act, in order to enable him to escape punishment shall be deemed to be an accessory after the fact to the crime.<sup>29</sup> Section 6 of the Act deals with penalties for committing any of the offences as follows: Any person found guilty of a crime under section 1-5 of this Act shall on conviction be sentenced to imprisonment for life and in addition:

- (a) Any carrier, including air craft, vehicle, containers and any other thing whatsoever used in the transportation or importation of the harmful waste; and
- (b) Any land on which harmful waste was deposited or dumped, shall be forfeited to and vest in the Federal Military Government without further assurance other than this Act.<sup>30</sup>

Section 7 of the Act deals with crimes by body corporate, it provides that when a crime under this Act has been committed by a body corporate and it is proved that it was committed with the consent or connivance of or is attributable to any neglect on the part of:

- (a) A director, manager, secretary or any other similar officer of the body corporate; or
- (b) Any other person purporting to act in the capacity of a director, manager, secretary or other similar officer, he as well as the body corporate, shall be liable to be proceeded against and punished accordingly.<sup>31</sup>

Section 9 of the Act excluded any form of immunity in which case any person whether or not a foreign envoy can be found guilty under the Act. However, it seems quite clear that the provisions of s.9 of the Act cannot be invoked or enforced as Diplomatic Immunities have their origins from international conventions and treaties like the Vienna Convention on Diplomatic Relations of 1961<sup>32</sup> which has force of law in Nigeria by virtue of s.12(1) of the 1999 constitution. The provisions of the Diplomatic Immunities and Privileges Act<sup>33</sup> which provides that all diplomatic agents enumerated in the Vienna Convention on Diplomatic Relations 1961 enjoy immunity from criminal proceedings and they are obliged to give evidence in proceedings as witnesses. In *Ishola v His Excellency, the British High Commissioner to Nigeria*,<sup>34</sup> the Supreme Court held that an action commenced against the British High Commissioner to Nigeria was incompetent, null and void, by invoking the provisions of s.1 of the Diplomatic Immunities and Privileges Act.

Apart from the criminal liability imposed under the law, section 12 of the Act makes ample provision for civil liability as follows:

*Where any damage has been caused by any harmful waste which has been deposited or dumped on any land or territorial water or contiguous zone or Exclusive Economic zone of Nigeria or its inland waterways, any person who deposited, dumped or imported the harmful wastes or caused the harmful waste to be deposited; dumped or imported shall be liable for the damage except where the damage: (a) was due wholly to the fault of the person who suffered it; or (b) was suffered by a person who voluntarily accepted the risk thereof.*<sup>35</sup>

<sup>29</sup> Ibid, S. 5

<sup>30</sup> Ibid, S. 6 (a) (b)

<sup>31</sup> Ibid, S. 7

<sup>32</sup> Ehiughelua (n11) 98, 99.

<sup>33</sup> Ibid, 99.

<sup>34</sup> (1980)8-11 SC 100; Abacha v. Fawehinmi (2000) 1 LHR 31; Agbakoba v. Director of SSS (1994) 6 NWLR (Pt. 351) 475.

<sup>35</sup> (n2) S.12.

**Criminal Code Act<sup>36</sup>**

Providing for the prevention of public health hazards and for environmental protection, the Act makes it an offence to foul the water of any spring, stream, well, tank or any reservoir or place so as to make less fit for the purpose it is ordinarily used.<sup>37</sup> Similarly, under the act, it is an offence to use noxious substance to vitiate the atmosphere.<sup>38</sup>

**Constitution of the Federal Republic of Nigeria, 1999<sup>39</sup>**

In recognizing the need for improving and protecting the environment against the discharge of hazardous waste and its consequences to the environment and human health, the constitution makes it an objective of the Nigerian State to improve and protect the air, land, water, forest and wildlife of Nigeria.<sup>40</sup> Similarly, section 12 of the constitution provides for the implementation of international treaties (impliedly including environmental treaties) which have been ratified by the National Assembly.<sup>41</sup>

As heart warming as this provision may appear, it has been described as having serious defects. One defect is the fact that the wording of the section is very broad. More importantly, the relevant provision falls under Chapter II of the Constitution, which is non-justiciable; consequently the provision lacks judicial enforcement. It is further criticized on the ground that the provision attempts a "middle-ground between two extremes formulated by a system that is not desirous of initiating any serious environmental change the thrust of which may disturb its economic direction and strategies." Thus, the legal watershed heralded by Section 20 has disappointingly resulted in a legal mirage.<sup>42</sup>

**National Environmental (Sanitation and Wastes Control) Regulations, 2009**

This Regulation was made pursuant to NESREA. The purpose of these regulations is the adoption of sustainable and environment friendly practices in environmental sanitation and waste management to minimize pollution.<sup>43</sup> Regulation 3(1), (2) and (3) provides that no person is to discard, throw or drop any litter or any similar refuse anywhere except in designated litter bins and that no owner, operator, occupant or person in care, management or control of premises is to allow the release of litter into the environment, and furthermore, that no occupant or passenger of any vehicle is to throw or drop any litter into the streets, roads, highways, public spaces and other undesignated places.<sup>44</sup> Regulations 44 provides that no person shall engage in any activity likely to generate any hazardous wastes as defined in these relations without a permit issued by the Agency.<sup>45</sup>

Regulation 35(1) provides that effluent from a housing estate, hotel, commercial facility, wastes management facility, hospital, abattoir or livestock farm shall not be discharged or

<sup>36</sup>Cap C 38 LFN, 2004.

<sup>37</sup>Ibid, S. 245.

<sup>38</sup>Ibid, Ss. 247 and 248.

<sup>39</sup>Cap C 23 LFN 2004.

<sup>40</sup>Ibid, S. 20.

<sup>41</sup>Ibid, S. 12.

<sup>42</sup>Babade James Ayobayo, 'The Koko Incident: The Law of the sea and Environmental Protection' (2014) LL.M Seminar Paper on Law of the Sea, Faculty of Law, University of Lagos, pp. 20-21; See Fagbohun, Olanrewaju. 'Reappraising the Nigerian Constitution for Environmental Management' [2002] (1)(1) *AAU Law Journal*, pp. 44.

<sup>43</sup>Reg. 2 National Environmental (Sanitation and Wastes Control) Regulations 2009.

<sup>44</sup>Ibid, Reg. 4(1)(2)(3).

<sup>45</sup>Ibid, Reg. 44.



cause to be discharged into the public drain or natural environment without a permit from the Agency.<sup>46</sup> Regulations 71-93 provide for the offence under this regulation whereas regulations 94-104 provide for the penalties under this regulation. Reg 71(a) specifically provides that it shall be an offence for an owner or occupant in care of premises or in control or management of a business to release or cause litter to be released into the environment,<sup>47</sup> while regulation 94 provides that any person who violates regulation 71(a) to it shall be guilty of an offence and shall on conviction be liable to a fine of 20,000 or imprisonment for six (6) months or both such fine and imprisonment.<sup>48</sup> It is however observed in this work, that Reg. 3(1), (2) (3) is grossly honoured in breach than in compliance all over Nigeria.

## 5. COLLECTION, TREATMENT AND DISPOSAL OF HAZARDOUS WASTES IN NIGERIA

### Collection of Hazardous Wastes

There is a dearth in federal and state laws on hazardous wastes collection be they toxic or radioactive.<sup>49</sup> Indeed, of all federal statutes, only the Pollution Abatement in Industries and facilities generating wastes Regulation made a direct provision on wastes collection as a legal process within wastes management.<sup>50</sup> Reg. 11 (1) of the said regulations provides that the collection... of wastes shall be the responsibility of the industry or facility generating the wastes.

Section 7 (c) of NESREA Act provides that the Agency shall have power to enforce compliance with the provisions of international agreement...on the environment including hazardous wastes...<sup>51</sup> Other legal provisions that bear a semblance of seeking to regulate the collection of hazardous wastes are section 30-32 and 40-46 of the Nuclear Safety and Radiation Protection law. Subject to obtaining a license under S.18 of the Nuclear Safety and Radiation Protection Law, section 30-32 of this law seek to regulate the exploration, excavation, mining and milling of ores containing radioactive materials.<sup>52</sup> The license regime for the collection of radioactive waste established by S. 30 read in conjunction with S. 18 of the Act requires excavation, mining and milling of ores containing radioactive wastes to be subject to the appropriate code of practices laid down by the Nigerian Nuclear Regulatory Authority.<sup>53</sup>

The transport of hazardous wastes by air, water and land involves the collection of such wastes. Section 40(2) of the Nuclear Safety and Radiation Protection Law, apart from subjecting the transportation of radioactive wastes to the provisions of the Act, among other conditions requires the granting of license by the Nuclear Regulatory Authority before nuclear wastes can be transported, subjects such transportation to the general regulations for the transportations of dangerous goods. It should, however, be noted that where a person dealing with waste qualifies merely as a waste broker, that is someone who arranges for the transport

<sup>46</sup>Ibid, Reg. 35(1).

<sup>47</sup>Ibid, Reg. 71 (a).

<sup>48</sup>Ibid.

<sup>49</sup>Usman (n5) 106.

<sup>50</sup>Ibid.

<sup>51</sup>Ibid, 106, 107.

<sup>52</sup>(n 39) Ss. 30-32.

<sup>53</sup>Usman (n5) 108.

of waste, he may not necessarily require a waste management license because he may not actually handle the waste himself.<sup>54</sup>

A consignor, carrier and consignee of radioactive waste shall have a valid license from the Authority and notify it well in advance prior to the delivery, transport and receipt of such wastes.<sup>55</sup> Similarly a person packaging radioactive wastes is required to do so according to laid down procedures in the code of practices.<sup>56</sup> Such a person is financially and otherwise liable for all incidents during the transportation or storage in transit of the said radioactive wastes.<sup>57</sup> It is here submitted that the "otherwise" liability of such a person will include the cost of restoring the environment to its original state.<sup>58</sup> A person who breaches any of the above provisions will on conviction be liable to a fine of not less than ₦100, 000 or not more than ₦3million or to imprisonment of not less than 2 years or not more than 10 years or both such fine and imprisonment.<sup>59</sup> In addition, the Act provides that the authority may cancel, revoke or suspend any registration, exemption or license that might have been effected or granted to the person.<sup>60</sup>

Where the offence has been committed by a body corporate and it is proved to have been committed with the consent, connivance or is attributable to any act or default on the part of any person or persons in apparent control of the body corporate, such person as well as the body corporate shall be deemed to have committed the offence and shall be liable to be proceeded against and punished accordingly.<sup>61</sup>

### Treatment of Hazardous Wastes

Waste treatment is the act of processing extremely toxic wastes to a less deleterious character for purposes of discharging into the environment or for purposes of use as a raw material. For the purpose of achieving the hazardous wastes treatment regime established by the Regulations 1(1) of the Effluent Limitation Regulations, the Regulation stipulates that each industry shall install antipollution equipment for detoxification of effluent and chemical discharges emanating from the industry.<sup>62</sup> Failure to comply with the provisions of these regulations on effluent treatments is an offence that is punishable under s. 24(4) or 5 of the NESREA Act. Natural persons are punished under s. 24(4) of the Act which stipulates a fine of ₦200, 000. 00 or a term of imprisonment not exceeding 2 years or both fine and imprisonment.<sup>63</sup> Corporations and firms are punished under s. 24(5). It provides that where an offence under subsection 3 of this section is committed by a body corporate, it shall on conviction, be liable to a fine not exceeding ₦100, 000 and an additional ₦50,000 for everyday the offence subsists.<sup>64</sup>

Furthermore, Regulation 18 of the National Environmental (Chemicals, Pharmaceuticals, Soap and Detergent Manufacturing Industries) Regulations made pursuant to NESREA Act provides that facilities that discharge effluent into the environment shall treat the effluent to the

<sup>54</sup> J. Thornton, L.A Owen, *Environmental Law* (1<sup>st</sup> edn London, Sweet & Maxwell, 1997) p. 197.

<sup>55</sup> (n 7) S. 42.

<sup>56</sup> *Ibid.*

<sup>57</sup> *Ibid.*

<sup>58</sup> *Ibid.*, S. 43 (2).

<sup>59</sup> *Ibid.*

<sup>60</sup> *Ibid.*, S. 45(2).

<sup>61</sup> *Ibid.*

<sup>62</sup> Reg. 1 (1) Effluent Limitation Regulation 1991.

<sup>63</sup> (n 3) S. 24 (4).

<sup>64</sup> *Ibid.*, S. 24 (5).

permissible level as specified in schedule I to ensure assimilation by the receiving medium, and that every facility shall carry out effective treatment, all the time that the plant of unit is operating; ensure the environmentally sound management of sludge containing heavy metals or other toxics and dispose same in a landfill or designated disposal site approved by the Agency.<sup>65</sup> It also provides that wastes that contain toxic organics shall be subjected to thermal treatment to effectively destroy or remove over 99.99% of toxic organics.<sup>66</sup>

### **Disposal of Hazardous Wastes**

Disposal of hazardous wastes means getting rid of such wastes. The disposal of wastes can either be through dumping in water bodies, landfill, and incineration at sea or on land, reclamation and recycling. Disposal of hazardous wastes is the end process of hazardous wastes management, through which process hazardous wastes collected, stored or treated will finally be laid to rest. It is a very important link in the chain of hazardous wastes management. The Pollution Abatement in Industries and Facilities Generating Wastes Regulation on its part provides in Reg. 16 (1) that solid wastes generated by an industrial or facility... shall be disposed of in an environmentally safe manner.<sup>67</sup> Reg. 16(2) provides that no industrial solid wastes shall be disposed of in any municipal landfill.<sup>68</sup>

Whereas the National Environmental (Chemicals, Pharmaceuticals, Soap and Detergent Manufacturing Industries) Regulations, 2009 provides that no facility shall discharge effluent into land, into water-course or into a water body unless the facility ensures that the parameters of the effluent do not exceed the permissible limits specified in schedule I to these regulations,<sup>69</sup> and that no facility shall discharge or cause to be discharged any effluent into a water system used or earmarked as source of portable water supply.<sup>70</sup> Under this regulations disposal of hazardous waste on water is prohibited without prior treatment, and land filling is permitted according to guidelines approved by the Agency.<sup>71</sup> It further provides that generators of hazardous waste for land filling must provide notification of such to the Agency and that generators of such treated waste, subject to the Land Disposed Requirements, must provide notification of such to the Agency.<sup>72</sup> The Regulation also provides that sludge disposed of into land shall be classified and none of its components shall exceed the prescribed limit specified in schedule 11 to these Regulations.<sup>73</sup>

## **6. INTERNATIONAL TREATIES ON THE CONTROL OF HAZARDOUS WASTES**

Nigeria has also adopted either by ratification, acceptance, and approval or accessions various international treaties on hazardous waste control. These international treaties are as discussed below.

<sup>65</sup>NECPSDMIR 2009, Reg. 18(1), (2) (a) (b).

<sup>66</sup>(n 3) Reg. 18 (3).

<sup>67</sup>Reg. 16(1) Solid and Hazardous Wastes Regulations 1991.

<sup>68</sup>Ibid, Reg. 16(2).

<sup>69</sup>Reg. 17(1) NECPSDMIR 2009.

<sup>70</sup>Ibid.

<sup>71</sup>Ibid, Reg. 17(4) and (5).

<sup>72</sup>Ibid, Reg. 17(6) and (7).

<sup>73</sup>Ibid, Reg. 19(2).

### Convention on the Control of Transboundary Movement of Hazardous Materials and Their Disposal<sup>74</sup> (Basel Convention)

The Basel Convention of 1989, which entered into force in 1992, is the primary international agreement for the regulation of hazardous waste. Prior to this treaty, the international regulation in this area consisted of non-binding soft-law. For example, in 1987 UNEP gathered a group of experts to develop an agreement for the “environmentally sound management of hazardous waste,” which came to be known as the Cairo Guidelines.<sup>75</sup> The Cairo Guidelines were designed to address specific concerns regarding the export of hazardous waste, focusing on principles to regulate the trans-boundary movement of hazardous waste. They were also meant to assist developing countries in the implementation of appropriate disposal systems for the treatment of hazardous waste. Even though these guidelines were not considered binding international law, global concerns regarding hazardous waste “sparked a desire to create a more binding agreement” and these previous agreements served as the foundation for the Basel Convention negotiations.<sup>76</sup>

The objectives of which are to set up obligations for state parties with a view to:

- (a) Reducing transboundary movement of wastes subjects to the Basel Convention to a minimum consistent with the environmentally sound and efficient management of such wastes.
- (b) Minimizing the amount and toxicity of hazardous wastes generated and ensuring their environmentally sound management (including disposal and recovery operations) as close as possible to the source of generation.
- (c) Assisting developing countries in environmentally sound management of the hazardous and other wastes, which they generate. The convention was adopted on 22<sup>nd</sup> March, 1989 at Basel, Switzerland and entered into force on 5<sup>th</sup> May, 1992.<sup>77</sup>

The Basel Convention works more like a trade regime – in that it seeks to control the movement of hazardous waste “through a system of prior informed consent, strict notification, and tracking requirements.” Under the Convention, the movement of hazardous waste is only permitted where the exporting country does not have the capacity to dispose of the material “in an environmentally sound and efficient manner,” or the waste is required in the importing country as a raw material for recycling or recovery.<sup>78</sup> If prior informed consent is not received by the exporting country from each state involved, or if consent is obtained through “falsification, misrepresentation, or fraud” the movement of hazardous waste is considered illegal trafficking under the Convention.<sup>79</sup>

The Basel convention addresses issues relating to the movement of hazardous wastes across national frontiers. The convention defines wastes as ‘substances or objects which are disposed

<sup>74</sup>(Basel Convention). It was adopted in Basel Switzerland on 22 March 1989 and entered 5 May 1992.

<sup>75</sup>Matiangai V.S. Sirleaf, Criminalization of Trafficking in Hazardous Waste in Africa, p. 10. <[www.african-courtresearch.com/2016/07/](http://www.african-courtresearch.com/2016/07/)> accessed 13 April 2019.

<sup>76</sup>Laura A. W. Pratt. ‘Decreasing Dirty Dumping? A Reevaluation of Toxic Waste Colonialism and the Global Management of Transboundary Hazardous Waste’ [2011] (35) *WM. & Mary Env'tl. L. & Pol'y Rev.*, pp. 581-623:594; See 86 United Nations Environment Programme, Rep. of the Governing Council, 14th Sess., June 8–19, 1987, U.N. GAOR, 42nd Sess., Supp. No. 25, A/42/25, at annex I, Dec. 14/30 (1987); See also U.N.E.P., Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Waste, Dec. 14/30, Jun. 17, 1987, reprinted in 1 Basic Documents of International Environmental Law: The Important Declarations 148–56 (Harald Hohmann, ed. 1992).

<sup>77</sup>C.O Ajuzie, Our Common Environment: *Understanding the Environment, Law and Policy*, (Lagos, University of Lagos Press 2012) p. 152.

<sup>78</sup>(n 74), art. 4(9).

<sup>79</sup>Sirleaf (n 75), p. 10.

of or are intended to be disposed of or are required to be disposed by the provisions of national Law.<sup>80</sup> Management is defined as "the collection, transport and disposal of hazardous wastes or other wastes, including after-care of disposal sites,"<sup>81</sup> while transboundary movement is defined to mean any movement of hazardous wastes from an area within the national jurisdiction of a state to a place outside its national jurisdiction.<sup>82</sup> The Convention requires States Parties to adopt a number of urgent measures aimed at combating the transboundary movement of hazardous wastes. Parties are required to prohibit the importation of hazardous wastes or other wastes for disposal but such parties shall inform other parties of their decision in accordance with Article 13.<sup>83</sup> Parties shall not permit the export of hazardous wastes to the parties that have prohibited the import of such wastes.<sup>84</sup>

Each State Party to the Convention is required to ensure that the generation of hazardous wastes and other wastes within its national territory is reduced to a minimum, taking into consideration social, technological and economic aspect.<sup>85</sup> It is similarly required of each Party to provide adequate disposal facilities for the environmentally sound management of hazardous wastes and other wastes.<sup>86</sup> In the management of hazardous wastes or other wastes within its national jurisdiction, States are required to adopt measures aimed at preventing pollution arising out of hazardous wastes and other wastes, and where such pollution occurs, to take steps to minimize their impact on human health as well as the environment.<sup>87</sup> States are obligated to ensure that the transboundary movement of hazardous wastes and other wastes is reduced to a minimum and carried out in sound and environmentally harmless manner.<sup>88</sup>

As has been briefly noted earlier, one of the key provisions of the Basel Convention is Prior Informed Consent.<sup>89</sup> The Basel Convention allows transboundary movement of hazardous waste, but requires that it must be carried out in accordance with the Convention's regulatory regime of prior informed consent. Thus, "Parties shall prohibit or shall not permit the export of hazardous wastes and other wastes if the State of import does not consent in writing to the specific import, in the case where that State of import has not prohibited the import of such wastes."<sup>90</sup> Exporters must notify receiving countries of intended hazardous waste shipments. The notification must specify all the countries through which the waste will travel.<sup>91</sup> The receiving nation has a number of options: it may accept the offer, reject it, solicit additional information, or accept the request with stipulated conditions.<sup>92</sup> In any case, the exporting nation must not ship the waste until it gets consent and a disposal contract that provides for "environmentally sound management" of the wastes.<sup>93</sup> A state party may not import or export wastes with non party states unless a separate disposal agreement that satisfies the

<sup>80</sup> (n 74), art 2(1).

<sup>81</sup> *Ibid*, art 2(2).

<sup>82</sup> *Ibid*.

<sup>83</sup> *Ibid*, art 4(1) (a).

<sup>84</sup> *Ibid*, art 4(1) (b).

<sup>85</sup> *Ibid*, art 4(2) (a).

<sup>86</sup> *Ibid*, art 4(2) (b).

<sup>87</sup> *Ibid*, art 4(2) (c).

<sup>88</sup> *Ibid*, art 4(2) (d).

<sup>89</sup> For the discussion on Prior Informed Consent, See generally, Andrew Webster-Main. 'Keeping Africa out of the Global Backyard: A Comparative Study of The Basel and Bamako Conventions' [2002] (26)(1) *Environ*, pp. 71-72.

<sup>90</sup> (n 74), art. 4, para. 1(c).

<sup>91</sup> *Ibid*, art. 6, para. 1.

<sup>92</sup> *Ibid*, art. 6, para. 2.

<sup>93</sup> *Ibid*, art. 6, para. 3.

environmentally sound management standard has been established.<sup>94</sup> A violation of any of these provisions requires the exporting State to recover its wastes from the receiving country.<sup>95</sup> On the liability provisions of the Basel Convention, articles 8 and 9 of the Convention impose duties on State Parties to retrieve exported waste that is in violation of an importation contract and to penalize illegal traffic in hazardous waste. While these provisions have been praised for being considerably more far-reaching than those found in most other environmental treaties, they mandate unilateral national action or implementation of legislation; they do not erect a liability regime under the Convention itself.<sup>96</sup>

It is noted that the Conference of Parties (COP) established under Article 15(5) lacks the strong co-ordination, supervision and monitoring capabilities expected of an implementation agency or body hence it is worrisome how the convention will achieve its objective without a strong enforcement mechanism. The Koko incident in Nigeria that occurred in 1988 where toxic wastes were exported from outside the country and dumped in Koko town in Delta State, Nigeria may be replicated several times across the globe from one country to the other without detection and punishment unless there is a strong and efficient enforcement agency. Although the incident predates the Basel Convention, however, the convention wouldn't have made any reasonable impact in ensuring it does not happen had it been in existence before the incident, considering its weaknesses enunciated above in Article 15(5) of the Conference of the Parties.

### The Lome IV Convention

As many developed nations began to realize the Basel Convention would fail to protect their interests adequately, some of these nations decided to form their own multilateral treaties banning the importation of hazardous waste into their territory. In 1990, the African Caribbean, and Pacific States (ACP States) and the European Economic Community (EEC) signed the Lome IV Convention.<sup>97</sup> The Lome IV Convention bans all hazardous waste exports from the European Economic Community (ECC) States to the African Caribbean, and Pacific States (ACP) States<sup>98</sup> and prohibits ACP states from accepting hazardous waste imports from any other nations<sup>99</sup> outside the European Community. According to one commentator, these two requirements make the Lome IV Convention the most sweeping international ban on the hazardous waste trade to date.<sup>100</sup>

The Lomé IV Convention actually interacts with the Basel Convention and is considered a supplement to it, prohibiting the export of hazardous wastes from the European Community to ACP States. The ACP States, in return for this concession, agreed not to accept waste import from any other State outside the European Community. The agreement also contains a chapter specifically on protection of the environment and conservation of natural resources. The agreement uses strong language to condemn international corporations involved in hazardous waste dumping activities in Africa; furthermore, these actions are even labelled as criminal, and the agreement demands prompt remediation of contaminated areas.<sup>101</sup>

<sup>94</sup>Ibid, art. 4, para. 5.

<sup>95</sup>Ibid, art. 8.

<sup>96</sup>Andrew Webster-Main, p. 73; (n 74), arts. 8 & 9.

<sup>97</sup>The Fourth African, Caribbean, and Pacific States and European Economic Community Convention of Lome opened for signatures in March 22, 1990 (hereinafter Lome IV, Convention).

<sup>98</sup>Ibid.

<sup>99</sup>Ibid.

<sup>100</sup>DJ Abrams. 'Regulating the International Hazardous Waste Trade: A Proposed Global Solution' [1990] (28) *Colum. J. TRANSNAT'L L.*, p. 840.

<sup>101</sup>Pratt (n76), p. 604; See Lome IV Convention, art. 39, para 1; See also Hugh J. Marbury. 'Hazardous Waste Exportation: The Global Manifestation of Environmental Racism' [1995] (28) *VAND. J. TRANSNAT'L L.*, pp. 251, 267.

Some commentators viewed this outright ban of exports from the EEC to ACP States as an indication that industrialized nations were beginning to distinguish hazardous waste exports to developing nations from those to industrialized nations.<sup>102</sup> The position of the Lome IV Convention suggests a departure from stance taken by many industrialized nations at the Basel Convention's first conference of the parties. Disagreement over the appropriate extent of the ban on hazardous waste delayed the implementation of the Basel until May 5, 1995.<sup>103</sup>

In contrast, under the Lome IV Convention, the complete ban of hazardous waste exports to ACP states became effective immediately, notwithstanding the fact that the rest of the convention had yet to take effect.<sup>104</sup> The revolution aspect of the Lome IV Convention is its complete ban on hazardous waste to ACP states,<sup>105</sup> regardless of whether the waste originates in ECC member states. The importance of hazardous waste exporting to African nations is illustrated by the fact that in 1988, the Nigerian government threatened hazardous waste importers with death by firing squad.<sup>106</sup> When the industrialized states refused to agree to a total ban on hazardous waste exporting, the African states recognized that they would have to take initiative to protect themselves. The leaders of African states, in particular, have continued to stress the importance of banning all imports of hazardous waste.<sup>107</sup>

The Lomé IV Convention expired in February 2000, and the European Community and seventy-nine ACP countries entered into a new treaty known as the Cotonou Agreement. Cotonou actually departs from the hazardous waste trade ban and instead encourages "cooperation on environmental protection and sustainable utilisation and management of natural resources...taking into account issues relating to the transport and disposal of hazardous wastes." Without the total ban, the agreement is considered much weaker; still, Cotonou recognizes the existence of disproportionate risks in developing countries and desires to protect against inappropriate hazardous waste shipments to these countries.<sup>108</sup>

### **The Bamako Convention**

The OAU Council of Ministers passed a Resolution on Dumping of Nuclear and Industrial Waste in Africa 1989. The Resolution was drafted in the wake of the aforementioned hazardous waste-dumping fiasco in Koko, Nigeria and after 15,000 tons of toxic incinerator ash was found in Guinea in 1988. This Resolution, calling for a ban on dumping, declared that dumping hazardous wastes in Africa was a "crime against Africa and the African people." This resolution served as the framework for the Bamako Convention.<sup>109</sup>

<sup>102</sup> Abrams (n100).

<sup>103</sup> The fact that all thirty-nine of the African nations at the Basel Convention refused to sign the treaty made its ratification by the requisite twenty nations more difficult to attain and delayed the Basel Convention from entering into force.

<sup>104</sup> The rest of the Lome IV Convention was a ten-year trade and aid pact between the EC and the ACP states. The ban on hazardous waste exporting was made effective immediately because the parties to the convention recognized that several months would pass before the entire treaty could officially enter into force.

<sup>105</sup> Some European community officials wondered if a complete ban on hazardous waste exports to ACP States under the Lome IV Convention ran counter to the international free trade rules set forth in the General Agreement on Trade and Tariff talks.

<sup>106</sup> After learning that hazardous wastes from Italy had been dumped in a Nigerian Port, Duro Onabule, a Spokesman for the government, threatened the importers with a firing squad and declared "There will be no mercy on this issue". Phillio Shabcoff, *Irate and Afraid Poor Nations fight Efforts to Use Them as Toxic Dumps*, N.Y. Time, July 1988, at C4.

<sup>107</sup> Only Africa and Central America have banned all hazardous waste imports to their respective regions.

<sup>108</sup> Pratt (n76). pp. 604-605.

<sup>109</sup> Webster-Main (n89), p. 84; Organization of African Unity: Council of Ministers Resolution on Dumping of Nuclear and Industrial Waste in Africa, May 23, 1989, reprinted in 28 I.L.M. 568 (1989).

The OAU created the Bamako Convention in 1991 as a response to perceived shortcomings of the Basel Convention.<sup>110</sup> Declaring that the hazardous waste trade constituted "a crime against Africa and the African people," African leaders believed that Basel's regulatory regime would merely legitimize a practice they found unacceptable.<sup>111</sup> Under the Basel Convention, cash-poor states could potentially be lured to ignore the disastrous consequences of the hazardous waste trade in the face of tremendous economic incentives.<sup>112</sup> African leaders were concerned that if such economic incentives proved too enticing, Africa would become a dumping ground for hazardous waste from industrialized countries.<sup>111</sup>

The Organization of African Unity (OAU) (now AU) believed that the Basel Convention failed to protect adequately the continent of Africa, citing the treaty's lack a complete ban on the transboundary movement of hazardous waste.<sup>112</sup> In addition, the OAU believed that Basel Convention guidelines could be evaded too easily because no effective system existed for the administration of the treaty.<sup>113</sup> In other words, OAU member States were dissatisfied with the Basel Convention, which does not explicitly ban the export of hazardous waste. Instead, the Basel Convention has a limited ban on exports and imports of hazardous waste to and from non-parties to the Convention.<sup>114</sup> Out of these concerns, the OAU developed the Bamako Convention,<sup>115</sup> which bans all imports of hazardous waste into Africa and restricts the movement of waste already in Africa.<sup>116</sup>

The Bamako Convention was designed to provide greater protection to African states than the Basel Convention. Although the preambles to both the Basel and Bamako Conventions are similar,<sup>117</sup> several important differences between the two agreements made the Bamako Convention broader.<sup>118</sup> First and most importantly, the Bamako Convention completely bans all hazardous waste imports into Africa,<sup>119</sup> including, the importation of waste for use in recycling, a frequently used loophole in the Basel Convention.<sup>120</sup> Article 2 of the Bamako Convention defines hazardous waste more broadly than the Basel Convention, thereby allowing the regulation of more types of wastes.<sup>121</sup> The Bamako Convention also creates a limited ban on the transfer of hazardous waste within and among the African States.<sup>122</sup> Taken together, these provisions allow hazardous waste to be exported from and transferred among African nations, but prohibit all imports from outside the OAU.<sup>123</sup>

<sup>110</sup>Webster-Main (n89), p. 80.

<sup>111</sup>Ibid, pp. 80-81; See Fred L. Morrison and WM. Carroll Muffet, *Hazardous Waste, in Inter- National, Regional, and National Environmental Law* (Fred L. Morrison and Rudiger Wolfrum, eds., 2000), pp. 409, 418.

<sup>112</sup>R.H. Shearer. 'Comparative Analysis of the Basel and Bamako Convention on Hazardous Waste' [1993] (23) *Envil. Law Journal*, p. 151.

<sup>113</sup>Ibid.

<sup>114</sup>Sirleaf (n75), p. 11.

<sup>115</sup>Bamako Conention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa opened for signature Jan. 29, 1991, 30 I.L.M 773 (1991) (hereinafter: Bamako Convention).

<sup>116</sup>Shearer (112) 143.

<sup>117</sup>Both Conventions call for a reduction of quantity and hazard potential of wastes generator, preserve the sovereignty of states to completely ban the import of wastes, call for the disposal of waste at the locus of generation where environmentally sound.

<sup>118</sup>Sheare (n112) Vol. 23, 153.

<sup>119</sup>Bamako Convention (n115) art 4(1).

<sup>120</sup>Ibid.

<sup>121</sup>Shearer (n112) 155. The Bamako Convention also includes the regulation of radioactive wastes, which the Basel Convention failed to include directly.

<sup>122</sup>Shearer (n112) 163.

<sup>123</sup>Bamako Convention (n115) arts 4(1) (3) (n) (i)-(ii).



Second, in response to fears that the administrative framework of the Basel Convention is ineffective, an article of the Bamako Convention that requires each Member State to designate competent authorities, a focal point, and a dumpwatch<sup>124</sup> is not clearly defined in the treaty;<sup>125</sup> however its apparent purpose is to monitor the dumping of hazardous waste.<sup>126</sup> The Bamako Convention imposes a duty on States to take legal, administrative, and other measures to prohibit the import of any hazardous wastes into their territories. Moreover, the Convention stipulates that any importation of hazardous waste into Africa "shall be deemed illegal and a criminal act."<sup>127</sup> Art. 9 provision of the Bamako Convention is also, stronger than that of Basel. Art. 9 provides that wastes deemed to be illegal should be returned to the state of origin in every case. It also places a stronger emphasis on states' duties to adopt relevant criminal legislation.<sup>128</sup> The Bamako Convention also imposes, "strict, unlimited liability as well as joint and several liability on hazardous waste generators."<sup>129</sup>

Third, the Basel Convention does not provide for any enforcement mechanisms for illegal trafficking. Instead, it provides that parties should adopt domestic legislation for the prevention and punishment of trafficking in hazardous waste. Since the OAU resolution in 1988, African States have considered the trafficking in hazardous waste to be a "criminal act". This view was encapsulated in the Bamako Convention provision that States should adopt national laws to impose criminal penalties "on all persons who have planned, committed, or assisted" in the illegal trafficking in hazardous waste. These penalties were to be "sufficiently high to both punish and deter such conduct."<sup>130</sup>

Fourth, Article 4 of the Bamako Convention specifically prohibits the dumping of hazardous waste at sea or in internal waters; a prohibition conspicuously absent from the Basel Convention<sup>104</sup>. This provision is designed to prevent incidents such as that of the Khian Sea, in which most of a load of hazardous waste was lost in the Indian Ocean.<sup>105</sup>

The focus of the Bamako Convention, however, is not on exports of hazardous wastes from Africa; rather, it is meant to halt imports into the continent. The Bamako Convention was created in order to address the growing dual problems of industrial nations using Africa as a dumping ground and of Africa's continuing incapacity to adequately handle such waste. The Bamako Convention's imposition of the Basel Convention's prior informed consent rule vis-a-vis movement of hazardous wastes between its state parties thus allows African States that have the capacity to safely dispose of hazardous waste to accept it from their African neighbours. Moreover; the Bamako Convention does not restrict African States from exporting hazardous waste to non-OAU countries. The Bamako Convention's ban, therefore, does not function to limit an African State's choice to export hazardous waste it cannot dispose of properly. Rather, its aim is to protect Africa from becoming a dumping ground for the hazardous waste of an industrialized country.<sup>131</sup>

<sup>124</sup>Ibid, art. 5.

<sup>125</sup>J. Brooke, Waste Dumpers Turning to West Africa, N.Y. TIMES, July 17, 1988 Part 1.

<sup>126</sup>Basel Convention (n74) art. 5; Bamako Convention (n115) art 5.

<sup>127</sup>Sirleaf (n75), p. 11.

<sup>128</sup>Park, Rozelia S. 'An Examination of International Environmental Racism Through the Lens of Transboundary Movement of Hazardous Wastes' [1998] (5)(2) *Indiana Journal of Global Legal Studies*, p. 698.

<sup>129</sup>Sirleaf (n75), p. 11.

<sup>130</sup>Ibid, p. 14.

<sup>104</sup>(n115) art. 4(2).

<sup>105</sup>J. Sawyer, Haiti Seeks Removal of U.S. Waste, St. Louis POST-DISPATCH, May 12, 1991 at 1A.

<sup>131</sup>Webster-Main (n89), pp. 83-84.

The chief benefit to the imposition of a total ban is that it decreases the possibility that generators will pass their environmental responsibilities onto countries which lack the environmental technology, regulatory infrastructure, or training and experience necessary to ensure that the waste management adequately protects human health and the environment.<sup>79</sup> A ban therefore reduces fears that receiving countries will dismiss potential risks in order to obtain the income, technological benefits, and employment opportunities associated with waste importation.<sup>132</sup>

Significantly, the adoption of the Bamako Convention by OAU in 1991 created a regional ban on the importation of all hazardous waste into Africa and limits the transfer of hazardous waste within Africa.<sup>133</sup> The existence of the Bamako Convention speaks to the ability of the Organization of African Unity (OAU) now African Union (AU) nations, which include some of the poorest nations in the world, to form a cohesive position to ban a potentially lucrative trade, for the sake of environmental and public health.<sup>134</sup>

## 7. CONCLUSION

It is germane to posit that Nigeria has viable legal instruments to control the generation and discharged of hazardous wastes in Nigeria, for the purpose of having a healthy environment. Legislation such as NESREA Act 2007 and Regulations made pursuant to it has provisions that are indeed fit to control and manage the discharge of hazardous wastes, particularly section 27 which prohibited the unlawful discharge of hazardous waste in Nigeria. All the laws on hazardous wastes in Nigeria cited in this work have in them provisions for punishments and responsibilities for both corporations and individuals, which if properly adhered to, will help in successful management and control of hazardous wastes in Nigeria. Therefore, the problem of hazardous wastes discharge in Nigeria is not the law but enforcement. It is enforcement of laws in any legal regime that can give meaning and credence to the purpose and objectives of such laws; hence a strict enforcement of laws on hazardous wastes in Nigeria will stem the tide of hazardous wastes discharge and its consequences in Nigeria.

It is our suggestion in this work that Nigerian government should formulate laws to monitor and regulate the transportation of hazardous wastes into the country from another jurisdiction and also, abide by international treaties on control of hazardous wastes she is a party to in line with section 12 of the Constitution of Nigeria, 1999, as amend. It is hoped that such laws will prevent the reoccurrence of Koko incident in any part of the country. Had Nigeria such legal instrument with strong enforcement mechanism before the Koko incident of 1988, perhaps such incident would have been averted notwithstanding the weakness of Basel Convention indicated in its Article 15(5), assuming the convention entered into force before 1988. However, the Bamako Convention has given hope to Africa including Nigeria, on the management and control of transboundary movement of hazardous waste in view of its avalanche provisions in harmony with environmental best practice in contradistinction with the Basel Convention which did not favour Africa considering its lapses.

<sup>132</sup>Webster-Main (n89), p. 84; See Theodore Waugh. 'Where Do We Go From Here: Legal Controls and Future Strategies for Addressing the Transportation of Hazardous Wastes Across International Borders' [2000] (11) *FORDHAM ENVL. LAW J.*, 521.

<sup>133</sup>See Sirleaf (n75), p. 11.

<sup>134</sup>Rozelia (n128), p. 677.