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# AN OVERVIEW OF AIR POLLUTION AND ITS STATUTORY REGULATORY FRAMEWORK IN NIGERIA

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#### Abstract

Air pollution is one of the environmental challenges confronting Nigeria. Air is polluted when chemicals, particulate matter or biological material are emitted into the biosphere in a manner that affects the ecosystem. Being an environmental problem acknowledged by the Nigerian environmental policy, measures are undertaken to regulate it with a view to ameliorating the problem. Nigeria is however a federal state, with each sphere of the component unit constitutionally allowed to regulate environmental matters. This work therefore focuses on the regulatory efforts of the central federal government with the regulatory actions of components states falling outside its scope. This work principally examines the Constitution of the Federal Republic of Nigeria 1999 (as amended) (CFRN),

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the National Environmental Standards and Regulations Enforcement Agency Act 2007 (NESREA) and its subsidiary legislations that have the capacity to regulate various sources of air pollution. The work highlights the challenges of low regulatory enforcement of the regulations and recommends a specialized agency like the Indian model to regulate air pollution in view of its negative impact.

**Key words:** Air pollution, Nigeria, Regulatory framework, Laws and regulations.

#### 1.1. Introduction

Air pollution has been viewed as the situation where chemicals, particulate matter or other forms of biological materials that are harmful to both humans or animals or any form of living things are introduced into the environment in a proportion that they cause a change to the natural environment and possibly become harmful or cause inconveniences to living organisms; or even cause damage to the natural or even already built environment. The World Bank on its part views air pollution as the contamination of the outdoor environment by certain contaminants of gas, fumes or smoke such that the outdoor environment is altered to the point that it is clearly or has the potential to cause injury to humans, animals or other living things or even property which unduly distorts the comfortable enjoyment of life and property by interfering with it<sup>2</sup>. The only problem identified from the World Bank's definition is that it restricts air pollution to only an outdoor definition, excluding an indoor classification. This is not comprehensive enough as there can be air pollution even in indoor situations.

In Nigeria, there are primary and secondary causes of air pollution. While the primary causes represent the direct emission from the pollution sources to the environment, the secondary causes are caused by chemical reaction in the atmosphere. Some of the primary sources of air pollution in Nigeria range from Biomass combustion, bush burning, refuse (waste) burning, traffic emissions,

<sup>&</sup>lt;sup>1</sup>Tawari C.C., Aboweri J.F.N. 2012. Air Pollution in the Niger Delta area of Nigeria. *International Journal of Fisheries and Aquatic sciences*. 1.2:94-117

<sup>&</sup>lt;sup>2</sup>World Bank Group. 2018. Reducing Pollution: Understanding Poverty and Environment. Retrieved Sep. 22, 2018, www.worldbank.org/en/topic/brief/pollution.

industrial emissions, gas flaring, pipelines explosion burning<sup>3</sup> and pollution from energy sources like generators. Air pollution is further affected by weather patterns; wind and rain can transport polluted air from one place to the other and from the atmosphere to the earth respectively.<sup>4</sup> The most common primary air pollutants in Nigeria are carbon compounds, lead, nitrogen compounds, sulfur compounds and particulate matter. While secondary pollutants include ozone, sulfuric acid droplets, sulfates and nitrate aerosols. Air pollution, therefore, signifies the presence of these common pollutants in the air. When inhaled by humans and animals, these harmful substances can lead to serious diseases and pose a threat to life. The prevalence of these harmful pollutants in the atmosphere which is detrimental to health of people and animals would connote a polluted air.

### 1.2 Nigeria's regulatory attempt on air pollution

Nigeria has recognised the existence of air pollution and the need to aggressively tackle the problem in the Nigerian Policy on Environment<sup>5</sup>. The policy underscores the importance of the atmosphere for the continual survival of humans and other animals. It recognizes the vitality of air for respiration and photosynthetic processes<sup>6</sup> the policy recommends an aggressive research on effects of air pollution and the putting in place of standards to effectively monitor and ensure the enforcement against atmospheric pollution. The policy recognizes air pollution as a dominant form of pollution and blames industries as responsible for its high incidence in the 1980s and the 1990s. The policy however identifies new causes of air pollution as emanating from the upsurge of automobiles and commercial motorcycles and electric generators from our homes and offices while

<sup>&</sup>lt;sup>3</sup> Ana G.R. (2011). Air pollution in the Niger Delta Area: Scope, Challenges and Remedies. *Open Access Peer Review*. Retrieved June. 7, 2018, <a href="https://www.intechopen.com/books/the-impact-of-air-pollution-on-health...">https://www.intechopen.com/books/the-impact-of-air-pollution-on-health...</a>

<sup>&</sup>lt;sup>4</sup> Fagbemi S.A. (2020). Right To Clean and Unpolluted Air In Nigeria. *African Journal of Law and Human Rights* 4 (1)@63

<sup>&</sup>lt;sup>5</sup> The National policy on environment was first launched in 1989; it was later reviewed in 1991, 1999 and 2016.

<sup>&</sup>lt;sup>6</sup>The National policy on environment 2016 page 14

also observing that most of the functional industries still rely on diesel powered generators<sup>7</sup>. Gas flaring, the policy noted, continues unabated, because the deadline earlier set to stop the flare of gas by the government has never been implemented instead it has been shifted several times<sup>8</sup>.

Sources of laws for the regulation of air pollution are to be found in common laws, the Nigerian statutes, state laws, judicial decisions, international treaties and conventions and majorly delegated legislations in the form of regulations. Air quality control in Nigeria has taken roots right from the passage of the Federal Environmental Protection Agency (FEPA) Decree. In 1999 upon the handover of power from the military regime back to the civilian regime, the Federal Government created and established the Federal Ministry of Environment with the core mandate to tackle issues of industrial and urban pollution. The ministry has adopted a variety of measures and initiatives for clean energy. 'The clean energy initiative'9is one of such measures to ensure that the renewable energy sector develops sustainably. In 2007, the Federal Environmental Protection Agency (FEPA) Act was repealed and replaced with the National Environmental Standards and Regulations Enforcement Agency (NESREA) Act<sup>10</sup>. The NESREA Act gives the minister in charge of the environment in Nigeria the power to formulate regulations for the purposes of enforcement by the agency so that the full functions of the agency can be carried out under the NESREA Act. In a bid to curb air pollution the Minister has made several regulations aimed at reducing air pollution.

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<sup>&</sup>lt;sup>7</sup> The National policy on environment 2016 page 32

<sup>&</sup>lt;sup>8</sup> Ibid page 33

<sup>&</sup>lt;sup>9</sup> A programme of the Federal Ministry of Environment in fulfilment of its obligations to the UNFCCC as part of African strategy on voluntary emission reduction

<sup>&</sup>lt;sup>10</sup>National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007 No. 25

Nigeria operates a federal structure, 11 what this means is that power is devolved between the federal government and the components states. This was reemphasized by the court in the case of A.G. Lagos v A.G. Federation<sup>12</sup> that the state was not subject to the Federal Government and the Federal Government does not supervise the States. The Constitution is the main instrument that allocates this power. Power to legislate is allocated between the central government in matters provided for in the exclusive list<sup>13</sup> for which the Federal Government has exclusivity in legislation<sup>14</sup> and the concurrent list<sup>15</sup> for which both the States and the central government can legislate on 16. In Nigeria, since environmental protection is not expressly mentioned in the exclusive or concurrent lists in the Constitution<sup>17</sup>, both the Federal Government and its component unit States have legislated on environmental protection;<sup>18</sup> the various States have passed their environmental protection laws and similarly set up institutions for such protection which form their various framework laws to tackling environmental problems. Some of these state laws have provisions regulating the activities that cause air pollution.

At the international realm some major agreements have also been negotiated and ratified by nations with a bid to curb air pollution. The Geneva Convention on Long-Range Trans-boundary Air Pollution ("1979 LRTAP") was the first of the initiative specifically targeting air pollution. The overall objective of the convention is to protect human health and the general environment from pollution that is transmitted beyond the borders of a country. This convention is currently

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<sup>&</sup>lt;sup>11</sup>S. 2 (2) 1999 Constitution.

<sup>&</sup>lt;sup>12</sup> (2003)12 NWLR p 1

<sup>&</sup>lt;sup>13</sup> Part 1 of the second schedule to the 1999 Constitution

<sup>&</sup>lt;sup>14</sup> S. 4(2) Ibid

<sup>&</sup>lt;sup>15</sup> Part 11 to the second schedule of the 1999 Constitution

<sup>&</sup>lt;sup>16</sup> The states legislation must however give way where it conflicts with the federal legislation.

<sup>&</sup>lt;sup>17</sup>Fagbohun O.A. (2002). Reappraising the Nigerian Constitution for environmental management. *Ambrose Alli University Law Journal* .5: 24-47.

<sup>&</sup>lt;sup>18</sup> Ibrahim B.Y. (2006). The Framework of Environmental Law of Nigeria-A critical Analysis. *Ahmadu Bello University Journal of Private and Comparative Law*.1.2: 212-224.

not operational in Nigeria as the hurdle imposed by the Nigerian constitution<sup>19</sup> requires ratification and domestication by the National Assembly.

### 1.3 Constitutional safeguard for air pollution

The Nigeria's constitution unlike the Uganda and South African Constitutions offers little constitutional protection for environment generally and air pollution specifically. Section. 20 of the Constitution is the useful environmental provision that makes a bold a statement about the environment and it provides: "The state shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria" Section 20 incidentally falls in chapter two of the constitution and that chapter has been adjudged to be non-justiciable<sup>20</sup>. The Nigeria courts in giving interpretation to chapter two of the Constitution have held that the chapter which falls under directive principles and fundamental objectives of the state is not justiciable. In Morebishe v Lagos State House of Assembly. <sup>21</sup>The court held that the chapter is not justiciable though they are pillars of guide for the Government. Similarly, in Okogie v A.G. Lagos State.<sup>22</sup> The court held that the chapter was non-justiciable even though they remain as a guide to the Government. What this clearly means is that the provisions as contained in the chapter<sup>23</sup>do not confer any right upon any individual for which any individual will seek to enforce against the Government. This is quite unfortunate considering that some African countries like Uganda and South Africa have already made a clean and healthy environment a constitutional right that citizens can enforce against the Government and polluters. Besides the non-justiciability, the problem remains that the provision as contained in section 20 of the 1999 Constitution represents

<sup>&</sup>lt;sup>19</sup> S.12(1) of the 1999 constitution requiring ratification by the national assembly

<sup>&</sup>lt;sup>20</sup>S.6(6)(c) of the 1999 constitution.

<sup>&</sup>lt;sup>21</sup> (2000) 3 WRN 134

<sup>&</sup>lt;sup>22</sup> (1980) FNR 445

<sup>&</sup>lt;sup>23</sup> This chapter is broadly captioned Fundamental Objectives and Directive Principles of State Policy

a scanty attempt at constitutional environmentalism, this again when compared against the constitutional environmentalism of the Uganda Constitution.<sup>24</sup> However, this fundamental directive has formed a basis for the Federal government of Nigeria in pursuant therefore to enact framework and sectorial legislations that have the effect to protect the environment and by direct or indirect extension regulate air pollution.

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

The National Environmental Standards and Regulations Enforcement Agency (NESREA) which is an agency of the Federal Government is established by the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act of 2007.NESREA was established to replace the repealed Federal Environmental Protection Agency (FEPA) after it was perceived to have had its own shortcomings. The establishment of NESREA prompted Ladan<sup>25</sup> to observe that the establishment of the National Environmental Standards and Regulations Enforcement Agency was an important step in a purposive move to protect the environment, he noted that the establishment of NESREA was going to address the many outdated standards and regulations in environmental management which was the major reason for the non-compliance by the general public. Some other authors think that because the then Federal Ministry of Environment lacked the necessary legal framework to enforce environmental laws, there was a need to establish NESREA to cure that deficiency.<sup>26</sup> Therefore,

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<sup>&</sup>lt;sup>24</sup> The 1995 Constitution of Uganda for instance have bold provisions in its Fundamental Rights Chapter, making a right to a clean environment a fundamental Rights matter and places a duty on the State to actualise this right.

<sup>&</sup>lt;sup>25</sup>Ladan M.T.(2012) Review of NESREA Act 2007 And regulations 2009-2011: A new dawn In Environmental compliance and enforcement in Nigeria. *Law Environment and Development Journal* .8.1

<sup>&</sup>lt;sup>26</sup>Agbazue V.E, Anih E.K., Ngang B.U, (2017). The role of NESREA Act 2007 in ensuring Environmental awareness and compliance in Nigeria. *IQSR Journal of Applied Chemistry* Vol.10:9 pp32-37 at page 34.

NESREA is to protect and develop the environment, implement laws and regulations on the environment, set and maintain standards and guidelines, create environmental education and awareness and partner both national international partners for the preservation and sustenance of the natural environment.<sup>27</sup>

The functions of the Agency as ascribed by the Act are contained in S.7 of the Act creating NESREA and are principally to ensure enforcement of environmental regulations and standards. The agency by its functions is to ensure and enforce the compliance with all laws and standards on the environment. This enforcement extends to multilateral environmental agreements which Nigeria has subscribed to and which have or are to come in force in Nigeria. The agency's powers of enforcement extend to the ecosystem, biodiversity conservation, pollution generally and air pollution inclusive, the handling of chemicals and pesticides and hazardous chemicals. Beyond the agency's enforcement powers, part of the functions of the agency is to also ensure the licensing of activities by issuing permits as a means of ensuring environmental control. This function will include the power of imposing fines or suspending such licenses where there are breaches of the licensing terms and conditions. The agency is also to undertake the enlightenment of the public on environmental awareness and practices that cause harm to the public. In providing sound environmental education to the public, it is to also undertake scientific research and publish data that can be safely relied upon by environmental practitioners. All these functions are to be performed in exclusion of the oil and gas sectors of the economy.

One significant discovery from the functions of the Agency is the exclusion of the oil and gas sectors from the functions to be performed by the Agency. This is present in most of the listed functions above. The implication is that the Agency shall perform their functions except where it arises from or pertains to the country's oil and gas sector which is the mainstay of the public funds in Nigeria.

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<sup>&</sup>lt;sup>27</sup> ibid

However, the question that may be asked is that, whether the agency can exercise their functions in respect of international laws that pertain to the oil and gas sector? This is because a careful look at section 7(c) of the Act empowers the Agency to enforce the compliance of international agreements that pertain and relate to oil and gas sector. While oil and gas is consistently missing from other functions or expressly excluded as the case may be, in section 7(c) the phrase "oil and gas" is included. With the above provision, it is safe to say that NESREA can enforce the compliance of international environmental agreements that pertain to the oil and gas sector but cannot enforce those made nationally. It will seem so. However, it will be also instructive to take a look at how international agreements that are ratified by Nigeria have effect and operation in the country. Section 12(1) of the 1999 Constitution as amended provides that "no treaty between the federation and any other country shall have the force of law except to the extent to which any such treaty has been enacted into law by the National Assembly." The provision of this section of the constitution which is a ground norm is expressly clear and needs no further adumbration. The National Assembly of Nigeria will need to re-enact every treaty that Nigeria signs with any single country or a group of countries. It is the enactment of the National Assembly that will bestow the force of law to such an international treaty. No ratification automatically makes an international treaty effective in Nigeria as a law. Yet when international treaties are enacted by the National Assembly they cease to be just international law and become part of our corpus juris. It will therefore, in my perception, mean that NESREA cannot enforce any laws as far as the oil and Gas sector is concerned notwithstanding the non-mention in section 7C. However, Ladan<sup>28</sup> has argued that by ratification Nigeria has signified intention to comply and be bound by such treaty. He founded his argument under Article 26 B of the

<sup>&</sup>lt;sup>28</sup>Ladan M.T. (2012) Review of NESREA Act 2007 And regulations 2009-2011: A new dawn In Environmental compliance and enforcement in Nigeria. *Law Environment and Development Journal* .8.1

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Vienna Convention on the law of treaties, which provides that, "every treaty in force is binding upon parties to it and must be performed in good faith". He further rested his argument on the case of Mojekwu v Ejikeme<sup>29</sup> to justify his position. Ladan concludes with a call for amendment of section 7(c) to bring it in conformity with other subsections which intendment is to remove the purview of oil and gas from NESREA. This argument notwithstanding the reality is that NESREA does not currently enforce any laws or standards that affect the operations in the Nigeria's oil and gas industry.

Excluding the National Environmental Standards and Regulations Enforcement Agency (NESREA) from regulating the oil and gas sector has significant negative implications<sup>31</sup>. It weakens environmental governance, creating gaps in oversight and enforcement of critical standards. This exclusion fosters regulatory overlap, confusion, and reduced accountability, allowing harmful practices to persist. Communities face heightened risks of pollution, biodiversity loss, and health hazards due to unchecked industrial activities. Furthermore, it undermines Nigeria's commitment to sustainable development and international environmental obligations. Ultimately, excluding NESREA limits holistic regulation, prioritizing economic interests over environmental protection and human well-being.<sup>32</sup>

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<sup>&</sup>lt;sup>29</sup> (2002) 5 NWLR (pt657)at 402

<sup>&</sup>lt;sup>30</sup>Ladan M.T. (2012) Review of NESREA Act 2007 And regulations 2009-2011: A new dawn In Environmental compliance and enforcement in Nigeria. *Law Environment and Development Journal* .8.1

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<sup>&</sup>lt;sup>31</sup> Suleiman, R. M., Raimi, M. O., & Sawyerr, O. H. (2019). A deep dive into the review of national environmental standards and regulations enforcement agency (NESREA) act. Suleiman Romoke Monsurat, Raimi Morufu Olalekan and Sawyerr Henry Olawale (2019) A Deep Dive into the Review of National Environmental Standards and Regulations Enforcement Agency (NESREA) Act. International Research Journal of Applied Sciences. pISSN, 2663-5577.

<sup>&</sup>lt;sup>32</sup> Akinsola, A. O., Olayinka, O. F., & Majekodunmi, T. A. (2025). An Appraisal of the Environmental Protection Provisions in Petroleum Industry Act, 2021. *NIU Journal of Legal Studies*, *11*(1), 141-153.

### 1.5 NESREA and air pollution

This research is essentially focused on air pollution, it is therefore important to attempt the linkage between the agency and its relationship with air pollution. Air pollution is simply one form of pollution as distinguished from other forms generally. Being such, air pollution is an environmental problem within the environmental realm. The Agency is entrusted with the big responsibility to be exercised for the protection and conservation of the environment. Some of its functions as earlier itemized include the enforcement of compliance with laws, guidelines, policies and standards on environmental issues.<sup>33</sup> Such standards, legislations and guidelines to be enforced include pollution abatement. <sup>34</sup>Therefore these specific functions of the agency as itemized in Section 7 (a), (d), (f), (g), (h) have provisions bothering on air pollution. In performing such functions placed by law on the Agency, the Agency has powers to submit for the approval of the minister in charge of the environment, a proposal for the coming into being or for the review of the existing guidelines, regulations and standards on the environment that bother on air quality, atmospheric protection and ozone depleting substances.<sup>35</sup> The agency also has powers to collaborate with any relevant agency to establish programs for setting regulations to prevent, reduce, or eliminate air pollution amongst other forms of pollution.

Particularly on air quality and regulation, the Act has provisions in Section 20 empowering the agency to deal with the problem. It empowers it to set standards of minimum essential air quality and control the concentration of substances in the air. Thus, the Agency has power to determine the standards of air quality, to make regulations and specifications for the purposes of making the air safe with a view to promoting public health. It is to do this by determining the source of the

<sup>&</sup>lt;sup>33</sup> S. 7(a)of the National Environmental Standards And Regulations Enforcement Agency (Establishment) Act of 2007

<sup>&</sup>lt;sup>34</sup> S.7(d) ibid

<sup>35</sup> S.8(k) ibid

air pollutant and to make appropriate regulations and means to control the source of the pollution. The Act empowers the agency to use any appropriate measures to reduce emission to permissible levels in the atmosphere. While regulating and setting standards the agency may set up monitoring stations or appropriate technology to monitor and locate the sources from which atmospheric pollution are emitted.<sup>36</sup> The implication is that the act has identified air pollution as dangerous and has empowered the Agency to use all measures to set the standards and ensure that air pollutants do not exceed such standards. Any person or body cooperate that violates the regulations made pursuant to safeguarding the air quality commits an offence and is liable on conviction for persons to a fine which does not exceed N200,000 or to a term in prison not exceeding one year or to both. In addition the convict will pay a fine of N20,000 for each day the violation subsists.<sup>37</sup> If the violation is by a corporate body the conviction fine shall not exceed N2,000,000 and additional N50,000 daily for the continuous violation.

In view of the powers of the Agency to regulate air quality and the atmosphere, the agency has made several regulations that are relevant in regulating air quality. Such regulations will be analyzed hereunder.

### 1.5.1 National Environmental (Air Quality Control) Regulations, 2014.

The regulations are made pursuant to sections 20(1) and 34 of the NESREA Act which enables the Agency in that regards to make regulations for the enhancement and protection of Nigeria's air quality. The first issue with the regulations starts from the Act. While section 20 (1) enables the Agency to make regulations, surprisingly, section 34 of the Act on the other hand empowers the Minister in charge of the environment to also make regulations for the purposes of carrying out or giving full effects to the functions of the Agency under this Act. The law

<sup>&</sup>lt;sup>36</sup> S. 20(2) of the National Environmental Standards And Regulations Enforcement Agency (Establishment) Act of 2007

<sup>&</sup>lt;sup>37</sup> S.20(3) ibid

by so doing has placed on two individuals the responsibility of making regulations for the attainment of the broad vision and objectives of the law. Now, the question may be asked, where does the power to make regulations lie in view of the provisions of these two conflicting sections under the same law truly lie? This has created a confusion under the law and if this conflict is not properly managed, it sets the initial problem for the operation and implementation of the regulations. In practice however, most of the regulations in existence are made by the Hon Minister in charge of the responsibility of the environment.

The purpose of the air quality control regulations as made by the Hon Minister is to provide for and ensure the protection, and improvement of the nation's air quality with a view to ensure for the right to breathe clean air, use and benefit from natural resources that abound according to the principles of sustainable development and most importantly to be aware of the extent of potential hazardous activity or project, and to be served urgent notice of any significant rise in the level of pollution released into the atmosphere whether deliberately or by accident and to have the said area cleaned up. <sup>38</sup> Comprehensively, the purpose of the regulations is to ensure a clean air, provide information when clean air is compromised as well as clean the air from hazardous substances when they do occur. The regulations are to apply to mobile and stationary sources of air pollution as well as indoor and ambient air quality.

The provisions regulating stationary sources of air pollution prohibits the installation of new equipment within residential areas which are not given prior approval by the Agency. Such equipment in consideration are listed in schedule 1 of the regulations.<sup>39</sup>To determine residential zone recourse will be had to a gazette or in the absence of a gazette the regulations describe it to mean a distance of at

<sup>&</sup>lt;sup>38</sup> Regulation.1 of the National Environmental (Air Quality Control) Regulations, 2014

<sup>&</sup>lt;sup>39</sup>The equipment include: Any equipment, plant or facility used for the purpose of heating or generating power that is rated to consume—pulverised fuel; any solid fuel at 20kg or more per hour; or any liquid or gaseous matter at 10kg or more per hour.

least 100 meters to the nearest dwelling house within a housing estate. A person is bound to immediately report to the agency any accidental discharge of a contaminant (pollutants) into the air, and the law places that duty on the person responsible for the release or discharge. Also a person shall not discharge contaminants into the air in a quantity higher than the concentrations specified in schedules 3, 4 and 5. The regulations also prohibit the importation of fuel burning equipment of two strokes engine. A person operating an industry of which particulate matter are emitted, the concentration at any point in-stack, of particulate matter shall not exceed the standards specified in Schedules IV and V. A person shall install air pollution abatement technologies in existing facilities to protect the environment. The regulations further prohibit burning except permitted and have provided for EIA for all new projects and including expansions, submit Environmental Audit Report EAR for existing structures on a three year basis, and submit an Environmental management plan EMP<sup>42</sup>

Part 3 of the Regulations deal with regulating pollution from mobile sources. It requires that emissions that proceeds from the exhaust of vehicles shall be in accordance with the standards that are prescribed by the regulations that deal with both petrol and diesel engines. Part4 of the regulations deal with Control of indoor Air Pollution in Offices, Public Places and Homes. It sets the maximum concentration of indoor air pollutants in homes and offices to conform with limits as stated in schedules 6 and 7. It banned certain pesticides at home in accordance with National Environmental (Control of Hazardous Chemicals and Pesticides) Regulations, 2013 and Provides for inspection of homes on suspicion of indoor air quality pollution. Power generating sets shall not be positioned in a building in a manner that would cause health hazard to occupants. The air from its exhaust

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<sup>&</sup>lt;sup>40</sup> Must report the date and time, duration, composition, description and the steps taken to control and clean the release.

<sup>&</sup>lt;sup>41</sup>means a type of internal combustion engine which completes a power cycle in only one crankshaft revolution and with two strokes or up and down movements of the piston.

<sup>42</sup> Regulation 11 part 2 ibid

must be positioned to avoid it being drawn back into the building and does not cause nuisance to the occupants of other buildings.<sup>43</sup> Homes and offices with cooking facilities are to have exhaust chimneys while smoking is prohibited in public places except in designated areas.

A person engaged in quarrying, agrochemicals, renewable energy generating plants, and mining shall do so in accordance with existing regulations and laws and must not exceed the permissible limits contained therein. To deal with ambient air quality, all operators of industrial plants or facilities must submit to the Agency any information the Agency requires regarding its operations. A person whose business or activity releases emissions into ambient air must comply with the standards set in schedules 3 of the regulations. Such a person must comply with best practices as contained in schedule  $13^{44}$  any contaminant that is likely to cause adverse effect is not allowed. Such recommended best practices that can aid the control of air emissions include the use of cleanest fuel economically available. Natural gas being preferred to oil and coal in this regards as well as a selection of the best power generation technology.

The regulations prohibits the emission of odorous air contaminants with noxious and foul odour that its nuisance level reaches a threshold of concentration at which a proportion of the population (less than 5%) experiences annoyance for a small part of the time (less than 2%). The threshold of odour is set in schedule 12 of the regulations.

The compliance monitoring and enforcement for this regulation shall be vested in the Agency who shall have a right of entry into any premises and to inspect documents and materials. The power of the agency shall extend to inspecting any pollution or waste source as well as inspect any control device or any monitoring equipment, and perform or carry out emission testing. A person who has violated

<sup>&</sup>lt;sup>43</sup> Regulation 20 ibid

<sup>&</sup>lt;sup>44</sup>Recommended measures to prevent, minimize, and control air emissions from power plants

these regulations or environmental laws, standards or both shall be served enforcement notice by the Agency requesting him to remedy such violation. Where he fails to remedy by complying with a second enforcement notice (the question may be asked why a second time if the violation is perceived deadly) within a limited time, he can be suspended, or sealing of premises or any other punitive action. An enforcement notice served must comply and specify the issues that add up to the contravention or that are likely to give rise to the contravention and also the measures to be taken to cure the contravention or likely contravention. The time upon which the measures must be taken must also be reflected in the notice.<sup>45</sup>

Part 10 of the regulations creates offences for noncompliance with the regulations. A person who violates any of the provisions of these Regulations commits an offence and shall upon conviction, be liable to pay a fine of not less than One Hundred Thousand Naira (N100, 000) or to imprisonment for a term not less than 6 months or to both, such fine and imprisonment and an additional fine of not less than N10, 000 for every day the offence subsists.

Despite the existence of these regulations since 2014, the reality is that ambient air quality continues to be bad and is always above the recommended air quality standards as set by the Federal Ministry of Environment in consultation with NESREA. In Port Harcourt, Rivers state, for example there is still a periodic black haze and sooth enveloping the environment despite the existence of these standards. The Federal Ministry in charge of environment is unsure of the causes and only suggests that it might possibly be from incomplete combustion of carbons. <sup>46</sup> In the 10<sup>th</sup>stakeholders' annual general meeting organized by NESREA in Abuja in 2016, the agency was urged to begin the enforcement of air pollution

<sup>45</sup>Regulation 38 (b) of National Environmental (Air Quality Control) Regulations, 2013

<sup>&</sup>lt;sup>46</sup>Ogunba A. (2019). Menacing Air Pollution in Port Harcourt Retrieved September 11, 2019 www.punchng.com/menacing-air-pollution-in-PortHarcourt/

regulations; this was coming on the background that there was zero enforcement.<sup>47</sup>

## 1.5.2 National Environmental (Control of Bush, Forest Fire and Open Burning) Regulations, 2011

This regulations came into force on April 28, 2011 and made by the then Minister of Environment Mr John Odey. The regulations operate and apply to both persons and corporate persons who engage in open burning for purposes that relate to hunting, clearing farm lands, seized goods and exhibits by regulatory agencies, municipal wastes, dead animals, tyres<sup>48</sup>, etc. The regulations forbid the burning of bush/forest or any combustible material except with a permit from the agency. <sup>49</sup>It is only the agency that has the power to issue permits for the purposes of any open burning and such application for a permit is expected to be made at least 21 days to the day of burning and may be granted with special directions.<sup>50</sup> A person so granted permit shall pay the necessary fees and must comply with conditions in the permit. In addition, the permit holder must give notice of his intention to burn to the occupier of adjoining lands and the enforcement officer of the Agency in the area where the land is situated. The length of this notice must not be more than 21 days or less than 7 days.<sup>51</sup> The idea of giving notice to adjoining land owners is commendable as it gives the immediate victims of the emissions ample time to adapt or take necessary measures to avoid the health effects of such emissions. A person who is desirous of burning plant wastes shall

<sup>&</sup>lt;sup>47</sup>Okeke C. (2017). NESREA fails to monitor Air Quality on Major cities Retrieved September 11, 2019 from https://allafrica.com/stories/201709130041.html.

<sup>&</sup>lt;sup>48</sup> Regulation 2 Ibid

<sup>&</sup>lt;sup>49</sup> Regulation 3 (1)(2) Ibid

<sup>&</sup>lt;sup>50</sup> Regulation 5 of National Environmental (Control of Bush, Forest Fire and Open Burning) Regulations, 2011.

<sup>&</sup>lt;sup>51</sup>Regulation 7(3). Such notice could be verbal or written and can be served on an adult member more than 18 years found in the premises.

by application seek a permit to do so. Such a permit may be granted subject to certain conditions. In the event of any spread or escape of fire the permit holder shall notify the nearest fire service and thereafter the agency within 24 hours of the escape and the circumstances under which it occurred.<sup>52</sup> The Agency may refuse to grant a permit in accordance with the regulations or may revoke or cancel any permit if it is satisfied that the burning may become a source of danger by spreading or escaping from the intended land or any other condition.<sup>53</sup> Tractors, bulldozers and road graders are not to be used in a forest ecosystem. If he does, then a fire extinguisher must be carried and exhaust pipes must be fitted an efficient spark arrester.<sup>54</sup> Similarly, a bee smoker device shall not be operated except a fire extinguisher is provided and a ground of at least 3 meters from the place is sufficiently cleared. The use of explosives is also prohibited except adequate arrangements are made for fire prevention, control and fighting.<sup>55</sup> The regulations also prohibit the use of fireworks on land and open air except in limited situations<sup>56</sup> and also prohibit the burning of bush or forest for hunting of animals.57

The regulations demand that an occupier or owner of a land that experiences a bush or forest fires shall within 7 days of the occurrence notify the agency providing full particulars and details that pertain to the fire. The enforcement officer of a state is required to send to Abuja in the month of June every year particulars of losses caused in his area. The regulation creates offences and penalties and provides that anyone who fails to comply with a condition in a

<sup>&</sup>lt;sup>52</sup> Regulation 10 of National Environmental (Control of Bush, Forest Fire and Open Burning) Regulations,2011.

<sup>53</sup> Regulation 12

<sup>&</sup>lt;sup>54</sup>Regulation 14

<sup>55</sup> Regulation 17

<sup>&</sup>lt;sup>56</sup> All inflammables on ground within a reasonable distance must be removed, there must be an appropriate fire extinguisher where the fireworks is used.

<sup>&</sup>lt;sup>57</sup> Regulation 19 Ibid

permit issued or violates any of the provisions of these regulations shall be guilty of committing an offence. The punishment for individuals is N50,000 or a term not exceeding 3 months and while a corporate body is N1,000,000 and an additional 20,000 for every day the offence persists. The agency is given the power that enables her to enter a premises and seal same premises breaching the regulations.

The regulations went ahead to exempt the following persons from the ban on open burning. They are. Barbecue grills and outdoor cooking stoves, small cooking and camp fires, ceremonial or celebratory bonfires, open fires to control plant and animal diseases and open fire as necessary to control invasive plant and insect species. <sup>58</sup>

The enforcement of these regulations too has been very low. Government agencies like the National Drug Law Enforcement Agency, NDLEA, NAFDAC continue to be major culprits in violating these regulations without consequences. In the Niger Delta, the Military Joint task force on illegal refineries continue to apprehend and set ablaze illegal refineries that burn for weeks with impunity and without any permit from the agency to do so. The rural farmers are not even aware of the existence of these regulations anyway and continue to set ablaze large farmlands preparatory to farming as this is most effective way of clearing farmlands. The herdsmen on their part set ablaze large bushes in early dry season as a means for early regeneration of the fresh grasses to feed their cattle. In our abattoirs, the commonest practice is the use of tyres to burn the fur in the skins of animals slaughtered. This practice continues to generate thick black smoke of carbons, soot etc. into the atmosphere. Above all NESREA does not enforce the laws majorly due to capacity. NESREA offices are often situated in the capital

<sup>&</sup>lt;sup>58</sup>Regulation 22 Ibid

cities of states where they exist to the neglect of all other LGAs of the states. Again this regulation has very weak enforcement.

Our urban population continues to increase while that of the rural areas is decreasing this causes the problems of waste management in cities. Open burning of wastes and other farmlands contributes heavily to air pollution. In our urban areas, solid wastes are dumped in an unregulated fashion in open spaces causing high emission of odours and are often burnt in a bid to discard them. Often fires are ignited by even the authorities saddled with the responsibility to discard the wastes or even by other scavengers who troop there daily to sort scraps. There is no proper machinery in place to sort the wastes and recycle them. This is a common feature in our urban areas and in most dumpsites. At abattoirs and slaughter houses in our urban areas, it is a common sight to see tyres being used to burn the fur of the dead animals. This emits thick black smoke in to the atmosphere polluting heavily the air around. In the rural areas it is still common sight to see the burning of farmlands preparatory to crop production. All these activities are carried on as if they are unregulated: surprisingly regulations exist to cater for all these activities.

### 1.5.3 National Environmental (Control of Vehicular Emissions from Petrol and Diesel Engines) Regulations, 2011

These regulations were made by the Minister of Environment on the 28<sup>th</sup> day of April 2011. The essence of making the regulations is to improve and restore the clean quality of our air by setting standards that will ensure the protection of ambient and indoor air from pollutants that are harmful as well as ensure citizens have a right to access clean air. The regulations also aimed to ensure the improvement in the quality of automobiles that ply on our roads and by so doing improve health of Nigerians in the urban area especially where there is a high

incidence of air pollution from the number of automobiles that ply the road. <sup>59</sup>Part 1 of the regulations applies to new motor vehicles registered after 28<sup>th</sup> April 2011. A person shall not install or replace the engine of a motor vehicle with a petrol engine that emits pollutants in excess of the standard set in schedule 1 of the regulations.<sup>60</sup> While any new model motor vehicle shall be expected to comply with the set down emission standards of pollutants as shown in schedule 3 of the regulations, no assembler or manufacturer will assemble or import any petrol engine vehicle without a certified emission reduction technology for the control of emissions from such vehicles. Four strokes engines are to be used in place of two strokes engines.<sup>61</sup> The regulations apply to motor vehicles intended for use on the road having at least two wheels and does not apply to motor vehicles for racing purposes. For purposes of determining and verifying exhaust emission standards, the agency may require any assembler, manufacturer of importer to conduct necessary tests as provided for in schedule 4 of the regulations in the presence of any authorized officer. Where the agency has directed that these tests be carried out, such assembler, or importer shall submit periodically the results of such tests to the agency. Prior to the delivery of a new or used motor vehicle, the assembler or manufacturer shall issue a certificate to the owner stating that it has been properly inspected, tested and adjusted to meet the requirements of these regulations.<sup>62</sup> All motor vehicles whether idling or in motion shall not emit gaseous pollutants exceeding the emission standards sets out in schedules 1 and 3 of the regulations. No petrol engine should emit visible black smoke from the

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<sup>&</sup>lt;sup>59</sup> Regulation 1 of National Environmental (Control Of Vehicular Emissions From Petrol and Diesel Engines) Regulations, 2011

<sup>&</sup>lt;sup>60</sup> Schedule 1 sets the emission standards and limits for gaseous pollutants.

<sup>&</sup>lt;sup>61</sup>Regulations 3(5) of National Environmental (Control of Vehicular Emissions from Petrol and Diesel (Engines) Regulations, 2011. The regulations do not define what a four stroke or two stroke engine means.

<sup>&</sup>lt;sup>62</sup> Regulation 6 of National Environmental (Control Of Vehicular Emissions From Petrol and Diesel Engines) Regulations, 2011

exhaust pipe.<sup>63</sup>Emission tests are to be conducted in accordance with the procedure in schedule 4 and the result recorded in a test certificate that is prescribed for in the schedule 5 of the regulations. Such test is to be carried out at a licensed facility and all vehicles are to undergo such test once a year. New vehicles are to be exempted until after three years of operation in Nigeria.<sup>64</sup> The agency or any authorised officer may issue a prohibition order on a vehicle that fails an emission test and has contravened acceptable conditions. Such vehicle is to carry the prohibition order attached to the conspicuous part of the windscreen and such vehicle shall not be operated until its defect have been remedied to the satisfaction of the agency and then such order can be withdrawn.<sup>65</sup> Engines are to be put off in enclosed or partially enclosed parking areas and shall not be allowed to idle for more than 5 minutes. A fleet operator shall maintain an approved facility to carry out smoke tests in all his vehicles periodically or as when directed by the agency in writing.<sup>66</sup>

For vehicular emissions from diesel engines, the standards are set in schedule 7 and 8. To verify the exhaust emissions, the agency may require any assembler or manufacturer to conduct such necessary tests in the presence of an officer at a licensed facility. Emission certificate shall be issued after such test. To this end with effect from 28<sup>th</sup> April 2011 no assembler or manufacturer shall assemble or import any vehicle without a certified emission reduction technology for the control of emissions from such vehicles.<sup>67</sup> Prior to when a new motor vehicle is to be delivered to the owner, the manufacturer or assembler shall issue a certificate

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<sup>&</sup>lt;sup>63</sup> Regulation 8(2) of National Environmental (Control Of Vehicular Emissions From Petrol and Diesel Engines) Regulations, 2011

<sup>&</sup>lt;sup>64</sup> Regulation 9 of National Environmental (Control Of Vehicular Emissions From Petrol and Diesel Engines) Regulations, 2011

<sup>&</sup>lt;sup>65</sup> Regulation11 of National Environmental (Control Of Vehicular Emissions From Petrol and Diesel Engines) Regulations, 2011

<sup>&</sup>lt;sup>66</sup> Regulation 15 Ibid

<sup>&</sup>lt;sup>67</sup> Regulation 20 of National Environmental (Control Of Vehicular Emissions From Petrol and Diesel Engines) Regulations, 2011

stating that it meets the requirements of the regulations. The maximum concentration of smoke at or near the final point of emission from the exhaust into the atmosphere shall not exceed ringelmann No2 or (50 HSU on a smoke meter) for a continuous period of more than 10 seconds when observed.<sup>68</sup> The regulation prohibits the emission of visible black smoke from exhaust pipes of diesel engines as well which is a common sight in our roads. The maximum density of smoke permitted shall not exceed 50 HSU or its equivalent smoke units. Prohibition orders shall apply in similar fashions with that of a petrol engine already discussed above and a fleet operator shall carry out similar responsibilities as above.

The regulations create a penal section where any person that violates any of the provisions of the regulations is set to commit an offence upon conviction, the person shall be liable to pay a fine not exceeding fifty thousand naira (N50,000) or to serve a prison term not exceeding one year or to both. An additional one thousand naira fine is imposed for each day the offence subsists. Where the person is a body corporate, it shall on conviction pay a fine not exceeding 500,000 naira and in additional shall pay 20,000 naira for each day the offence subsists. <sup>69</sup>

The Vehicular enforcement regulations remain the least form of unenforced regulations. Even though by the content of the regulations its enforcement was meant to start in 2011, that is yet to commence. The NESREA has consistently shifted the date of the commencement of enforcement basically due to incapacity to enforce the regulations on their part. In a chat with the News Agency of Nigeria, the Gombe State Coordinator of NESREA gave a hint as far back as 2018 that enforcement has not commenced because the agency were still in discussions with some relevant partners to enforce the regulations. NESREA has developed the National Vehicular Emission Control Programme (NVECP) with a view to

<sup>&</sup>lt;sup>68</sup> Regulation22 Ibid

<sup>69</sup> Regulation 30 Ibid

<sup>&</sup>lt;sup>70</sup>Agency to Check Air Pollution via Emission Control Retrieved September 11 2019 from www. Pmnewsnigeria.com/2018/07/03/agency-to-check-air—pollution-viaemission-control/

implementing the Vehicular emission regulations but the programme hasn't been implemented yet<sup>71</sup>. The programme is meant to have centers where vehicles will be tested for emission compliance and it is meant to be a PPP arrangement. The agency herself does not currently have test centers and equipment and this has slowed the enforcement of the regulations.

### 1.6 The Federal Ministry of Environment

The Federal Ministry of Environment (FME) is one of the institutions saddled with the responsibility of protecting the environment in Nigeria. While the ministry is not a law making organ of a state it is an executive body saddled with the power to fashion out environmental policies, which are a vital instrument in combating problems in environmental management. The ministry was first created in 1999 by President Olusegun Obasanjo upon the return of Nigeria to a democratically elected government to carry out the effective management of all environmental matters.<sup>72</sup> The reason for the creation was also to ensure that a cabinet member representing the environment is a member of the Federal Executive Council since the then Director General of FEPA was not a cabinet member. In 2006 the Ministry of environment was later renamed as the Federal Ministry of Environment, Housing and Urban Development but was later returned to the name of FME in 2008 when housing and urban development was excised from it. The Ministry has its headquarters in the Federal capital territory center in Abuja with zonal offices and offices in every state of the federation. The Ministry is headed by a minister appointed and assigned by the President of the Federal Republic of Nigeria.

The main mandate of the ministry of environment is to ensure that the environmental objective listed in Section 20 of the 1999 constitution is attained.

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<sup>&</sup>lt;sup>71</sup> Emission control Programme will sanitise the environment. Retrieved September 14<sup>th</sup> 2019, https://www. Nesrea.gov.ng/emission-control-programme-will-sanitise-the-environment/
<sup>72</sup> 8<sup>th</sup> National Council on environment Report available at. https;//environment.gov.ng

The mandate as stated in the said section 20 provides that it shall be the responsibility of the state to protect and improve water, air, land, forest and wildlife of Nigeria. Other mandates include to ensure environmental protection, natural resources conservation and over all sustainable development of the country. The ministry is to undertake this mandate by formulating policies on environmental matters as well as carry out oversight functions over the statutory agencies that are domiciled within the environmental sector such as NESREA and NOSDRA amongst other parastatals. The ministry also has domiciled with it some other agencies and parastatals like the National Parks that are scattered over Kainji, Oyo, Chad, Cross River, Okimu, and Gashaka. Beyond the Parks, the Ministry also has domiciled with her some colleges of forestry and other research institutes like the forestry research institute in Ibadan and the colleges of forestry in Jos, and Afaka. Other agencies in the ministry are the National Agency for Great Green Wall and the National Biosafety Management Agency. Most of these agencies are statutory agency. the Federal Ministry of Environment on its own is not a statutory creation, what this means is that it is not the creation of any Act of the National Assembly and as such her functions and duties are not provided for by any law. However, the creation of the FME has a constitutional backing. The Constitution vests the power in the President of the country to create ministries for the purpose of carrying out any executive functions and to assign responsibility to undertake any business that may be carried out by Government to any minister.<sup>73</sup>

As stated earlier, even though the functions of the ministry are not provided for in any law, some laws establishing certain agencies in the environment cluster have arrogated responsibilities to the Minister in charge of the environment. With these, the minister and by extension the ministry has been given statutory recognition by those laws. The minister is the head of the ministry and he works with the assistance of the Permanent Secretary and other directors who head the various

<sup>73</sup> S.148 of CFRN 1999 as amended.

departments in the ministry. The Federal Ministry of Environment has in pursuit of its responsibility and mandate to formulate programmes for the protection and preservation of a clean and sustainable environment for Nigerians developed some initiatives to advance that goal. Part of the initiatives have been programmes like the Ogoni Clean-up, which is aimed at remedying the impacts of oil spillage on the Ogoni environment. Oil spillage in Ogoni is caused by both the legitimate and illegitimate oil exploration activities in the area. Other initiatives of the Federal Ministry of Environment are the great green wall programme which is aimed at land reclamation from the devastating impacts of desertification and land degradation from other anti-environmental practices that have had a harmful effect on the fertile agricultural natural land. The overall goal of the initiative is to assist communities to boost food production and to combat climate change. The other initiatives of the ministry are programs like the erosion and watershed management project and the clean energy initiative.

The Clean Energy Initiative has some impacts on air pollution because it is an initiative of the Federal Ministry of Environment that is designed to achieve the reduction of emissions that is from energy sources particularly those that are linked to fossil fuels. Principally what the initiative seeks to do is to achieve cleaner sources of energy so as to reduce the concentration of the GHGs in the environment. The long term goal of this initiative is to have everyone move towards a cleaner source of energy for the nation as well by so doing achieve the country's obligation as subscribed to under the UNFCCC. The FME seeks to achieve this by partnering with other government agencies and ministries as well as the different levels and tiers of government in the federation and the private sector as well as to develop renewable energy industries that produce environmentally friendly sources of energy. In furtherance of this objective, Nigeria has subscribed as a state party to the Climate and Clean Air Coalition (CCAC)<sup>74</sup>; the essence of the CCAC is to reduce climate pollutants which also are

<sup>&</sup>lt;sup>74</sup> This was done in April 2012

air pollutants like, carbon from diesel trucks, from generators and from oil and gas production. It is even extended to pollutants from domestic heating and agricultural production.

The clean energy initiative in my assessment has not achieved much result that is very visible to the majority of average Nigerians on the street. While it may be admitted that Nigeria has witnessed an increase in the use of solar energy as an alternative power supply to the fossil powered generators, the number is still very negligible and insignificant, may be due to the huge financial cost involved in the purchase of the solar power technology. However, realizing this, the Federal Ministry of Environment has some ongoing projects which are intended to achieve the big picture of the Clean Energy Initiative. Some of the programmes under the initiative are the National Clean Cooking Scheme (NCCS). The essence of this program is to change the narrative in cooking especially amongst rural women who use firewood and other fossil fuels as source of energy while cooking. The programe is intended to phase out the two items above by introducing the LPG stoves. The ministry has already piloted this programe in a few secondary schools and has caused the National Assembly to intervene by distributing the clean stoves to a selected pilot phase in Akwa Ibom State and Kwara State. The Federal Ministry of Environment has also under the initiative launched the Rural Energy Access Project (REAP) the REAP programme has the aim of electrifying the rural communities with solar panels that can light up the streets and households. This has already commenced but distribution at rural levels is still negligible as only about 600 households by their records have benefited from the programme. The Clean Energy Transport Scheme (CETS) is another programe of the Federal Ministry of Environment that is being undertaken in collaboration with the Indian Government but with the active collaboration of Tata Group in particular to develop an efficient mass transit scheme that will use natural gas to drive rather than the fossil fuel which is being used now and which accounts for high levels of emissions.

The FME is also responsible for giving approval and also refusing approval if any for the grant of an environmental impact Assessment certificate. The Federal Ministry of Environment is solely responsible for the commencement of the process, the carrying out of the audit and the eventual issuance of the EIA certificate where the process is successful. A summary of the procedure for the approval is to commence by registering the intended project with the FME. This is followed by the initial environmental examination of the project by staff of the Federal Ministry of Environment. Thereafter a thorough evaluation and analysis of the project is carried out. This analysis often includes a laboratory analysis of the sufficient gathering of data around the project. After this a public engagement with full participation of stakeholders is carried out. This process involves the public display of the draft for public inputs or critic. This is closely followed by the setting up of an independent panel of experts to assess the report which can approve or disapprove of the EIA. Where successful, a final EIA certificate is issued and thereafter a monitoring team is constituted to monitor the project for an impact mitigation measure in line with the EIA. The monitoring is done in consultation with the relevant State Ministry of Environment and the Local Government that the project is cited. Part of the monitoring is to assess whether the condition for the approval of the project are complied with

Through the effort of the FME and in a bid to carry all stake holders in the Environmental Sector along for an efficient policy formulation and implementation, the National Council on Environment (NCE) was created. The NCE represent the highest policy making body on the environment in Nigeria. It was created as a means of facilitating inter-governmental co-operation in the harmonization of policies and to ensure implementation amongst the tiers of government in Nigeria. It comprises of all actors in the environment sector; the Federal Ministry of Environment, the State Ministries, Federal Agencies, State Agencies, Academia, NGOs, Civil Societies etc, that have relevance to, and interest in the environment. The NCE recently held its 14<sup>th</sup> meeting in 2021

virtually, even though it was supposed to have held it in 2020. The 2020 meeting was postponed due to the outbreak and impact of Covid 19. The key highlights of the 14<sup>th</sup> NCE meeting are summarized below. The meeting recommended decarbonization as a means of mitigating climate change and also focused on the need of creating wealth from waste. It also recommended the need for a more robust legislation to drive policies and the need to strengthen states to enhance sustainable forest to serve as sinks for pollutants. The NCE also urged states to emulate the Federal Government on the clean cook stoves initiative and called for the revision of the national policy on environment. It also recommended that states be carried along in the implementation of FME programmes in the host states.

### 1.7 Conclusion and recommendations

The research considered very deeply the NESREA Act and found that the Act is the major national law that has a comprehensive framework to address almost all environmental issues in Nigeria except that the law excludes the agency from exercising power over the oil and gas sector of the Nigerian economy. It notes that the Act empowers the agency to set standards and make regulations and even enforce them on air pollution. Thus, the agency has power to determine the standards of air quality, to make regulations and specifications for the purposes of making the air safe with a view to promoting public health. It is to do this by determining the source of the air pollutant and to make appropriate regulations and means to control the source of the pollution. The Act empowers the agency to use any appropriate means to reduce emission to permissible levels in the atmosphere. While regulating and setting standards the agency may establish monitoring stations or adequate technology that monitors and locates the origins of atmospheric pollution. The Act, the

<sup>&</sup>lt;sup>75</sup> S. 20(2) of the National Environmental Standards And Regulations Enforcement Agency (Establishment) Act of 2007

agency has made regulations which are in force and have become the most precise but comprehensive law for each source of air pollutant.

In Africa generally and Nigeria in particular, a gap exists between the objective set out by the legislatures to enact environmental laws and the actual enforcement of the laws in the field. First and foremost, the voluntary compliance with environmental laws by the citizens is very low, this therefore requires the regulators to step up enforcement by using the various methods outlined to ensure voluntary or involuntary compliance. In Nigeria, usually, it is government departments and agencies or ministries that are saddled with the responsibility for enforcement. Sometimes the laws themselves name certain agencies to enforce same or the law simply creates such an agency and enables it to make necessary regulations and directions for enforcement.<sup>76</sup> As previously noted, the enforcement of the environmental laws in Nigeria has been weak. There is also very low awareness of environmental laws both in their contents and their proscriptions and prescriptions. Not many Nigerians know that the burning of municipal waste for instance is criminalized despite that the law has empowered the agency with different enforcement methods: the administrative method, the civil enforcement method and the criminal enforcement method. (Administrative methods include, licensing and suspending of licensing, warning letters for abatements. EIA approvals, environmental audits etc. Civil enforcement methods involves the use of courts or Alternative dispute options to secure injunctions, damages, shutting down etc.) Enforcement of regulations made by the agency remain low. The non-implementation of the laws and regulations made to combat air pollution is the major problem why the indices of air pollution are still high in Nigeria. NESREA takes all the pains to make regulations only to allow them lie in books without enforcement. This has led to the low awareness on the part of the public about the existence of regulations that are aimed at regulating air pollution. The states also do not even comply with their own laws. The statute

<sup>76</sup> This is akin to the NESSEA Act.

books will set up agencies that do not exist in reality. It is important that we begin the enforcement of the existing regulations and laws on air pollution so that we can join the rest of the world in efforts to beat air pollution The failure of enforcing the laws on the part of the institutions saddled with the responsibility especially NESREA is more from the lack of technological and human capacity to enforce the laws. This is traced deeper to lack of government political will to enforce the relevant laws through NESREA. Though the laws and regulations are scattered between the federal Government and the states, a proper collaborative efforts by their agencies to enforcement will reduce emissions of air pollutants.

It is thus recommended that continuing to have only one single regulating and enforcement agency for the whole country like in the case of NESREA in Nigeria at the moment will always result to weak enforcement of environmental regulations. This is because, as it is often said, a jack of all trade is a master of none. It is highly recommended that Nigeria develops a comprehensive air pollution Act, as it is the case in India. The Act will then create a focused agency that will principally make regulations where necessary for the regulation of air pollution alone and enforce all the laws that pertain to air pollution. In the alternative to creating a separate specialized enforcement agency, it is recommended in the interim that NESREA's enforcement be strengthened by enhancing their institutional capacity through adequate funding, advanced monitoring technology, and specialized training. Clearer jurisdictional authority and stronger collaboration with other regulatory agencies, especially with other tiers of Government will reduce overlaps, improve compliance, and ensure effective protection of the environment and public health from air pollution.