

## THE LEGAL IMPERATIVES FOR REGULATING NOISE POLLUTION IN NIGERIA IN THE QUEST FOR SUSTAINABLE DEVELOPMENT: LESSONS FROM INDIA

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### **ABSTRACT:**

*A World Health Organization report to UN Environment Conference noted that of all environmental problems, noise is the easiest to control yet there is much noise everywhere! Every exposure to loud noise adversely affects human health. In Nigeria, there is no specific law on environmental noise pollution. The principal rule on noise regulation also has major defects and weak implementation. There is need for some legal actions to regulate the increasing inordinate noise levels to attain Sustainable Development (SD), hence, the motivation for this paper to proffer legal strategies to effectively control noise pollution and attain SD. The paper examines the regulation of noise pollution in Nigeria and finds that noise can adversely affect the quality of life of persons and the attainment of SD. Therefore, drawing lessons from India, the paper proffers legal imperatives to effectively regulate noise pollution to attain good standard of living and SD in Nigeria.*

**KEYWORDS: Sustainable Development, Noise, Pollution**

### **1. Introduction:**

Our environment is such that it has become difficult to escape noise. One of the veritable sources of environmental pollution is noise pollution. Noise is no less a pollutant than the toxic chemicals in the environment. As a result of increasing mechanization, the use of increasingly voluminous and complicated machinery, equipment and the stepping up of the pace of production, the noise is becoming an increasingly widespread and serious source of discomfort and danger.

Although there is no specific universal agreement as to how much noise people can tolerate or at what the noise threshold is, the number of interest keen on strict enforcement of noise pollution regulations in various places may be indicative of the fact that we probably have reached the limits of acceptable threshold.

While there may be gaps in our knowledge, existing evidence clearly points the way to increasing emphasis on reducing the exposure to environmental noise. Similar WHO guidelines for community noise recommended less than 30 A-weighted decibels (dB(A)) in bedrooms during the night for a sleep of good quality; less than 35 dB(A) in classrooms to allow good teaching and learning conditions, and for night noise less than 40 dB(A) of annual average ( $L_{night}$ ) outside of bedrooms to prevent adverse health effects from night noise. It has equally been submitted that a generally acceptable road traffic noise level  $L_D$  for residential areas should be less than 55 dB(A) and for night,  $L_N$  should not be greater than 50 dB(A). An area with environmental noise level less than 55 dB (A) is usually considered as a comfortable environment with little or no annoyance so that no negative physical and mental influence will be caused to essential activities such as working, leisure and sleeping. In addition, according to a European Union (EU) publication, about 40% of the population in EU countries is exposed to road traffic noise at levels exceeding 55 db(A); 20% is exposed to levels exceeding 65 dB(A) during the daytime; and more than 30% is exposed to levels exceeding 55 dB(A) at night. These have various negative health effects on the citizens and

indirectly impinge on the attainment of sustainable development (SD).

The term SD has become a global cliché to describe man's attempt to control and reverse the negative consequences of his domination of the earth. It has to do with positively exploiting the environment for the good of mankind and taking steps to preserve the same environment for future use. Thus, as noise impairs health, it impacts adversely on the attainment of SD. Noise pollution must therefore be controlled or managed to mitigate its harm on persons and the society using diverse schema including legal instruments.

International legal regimes and convention are instituted to encourage State Parties to establish national laws or regulations for the prevention and control of, and protection against, occupational hazards in the working environment due to air pollution. Similarly, in Nigeria, the regulation of noise is constitutionally provided for under section 20 where the government is encouraged to ensure the protection of the environment. There are regulations at the Federal level and some states to manage noise pollutions. However, there is no single comprehensive law on the subject. At best there are scattered regulations on the control of noise pollution by some agencies of government.

Despite the efforts of government to regulate noise pollution, environmental noise continues to increase in magnitude and intensity commensurate with population growth, urbanization and use of equipment. The various guidelines were observed more in the breach and coupled with inefficiency of the statutory body for enforcing and implementing the regulatory laws, not much has been achieved in terms of managing the pollution from noise. Meanwhile, according to many studies in Nigeria, the noise levels in major cities in Nigeria are well above the permissible limits (Sunday Olayinka Oyedepo). The excessive noise levels, attributable to sources such as car stereo systems, motorcycles, airplanes, traffic, transportation, construction activities, power saws, snow blowers, and electrical home appliances among others, continue to be detrimental to the health and performance of the citizens and rub off negatively on attainment of SD. There is need to proffer legal measures to improve the situation.

This paper examines the legal challenges militating against the regulation of noise pollution in Nigeria, examines the Indian jurisprudence on the noise regulation in the environment and the strategies to effectively control noise pollution and attain SD. These two countries have certain similarities that make this comparative study interesting. Firstly, they share similar political histories being former British colonies. Secondly, and more importantly, both countries have similar Constitutional provisions on the protection of the environment contained in the Fundamental Objectives and Directive Principles assumed to be unenforceable against the State. Thirdly, the two countries are emerging economies that generally display a low level of environmental rights based on the reasoning that recognition of environmental concerns is antithetical to development. In other words, both countries are expected to have similar levels of environmental rights recognition. Fourthly, these countries have a relatively dense population.

Although both Nigeria and India do not have substantive provisions in their Constitutions that recognize the right to a healthy environment, Nigeria has domesticated the African Charter on Human and Peoples' Rights which expressly recognizes the substantive right while India has read such rights into the Constitution.

The paper, therefore, provides relevant definition of terms highlights the international legal framework for noise control and examines the situation in Nigeria. Thereafter, issues and challenges as well as strategies are discussed. The paper draws from the experience of India to conclude and make salient recommendations regarding legal imperatives for Nigeria to effectively control noise pollution and attain SD.

## **2. Definition of terms:**

The three key words are SD, Noise and Pollution.

***Sustainable Development (SD):***

Although the international community presently sees SD as a framework for improving the standard of life (Bodansky Daniel, Jutta Brunnee and Ellen Hey (eds) ), several attempts have been made to define the term and to ensure that there is a balance between environmental interests and the economic and developmental interests of a country. (The World Fund for Nature (WWFN) Report, 1993) and the International Union for Conservation of Nature (IUCN). This need to maintain a balance was emphasized by the International Court of Justice in the case of Gabcikovo-Nagymaros project (Hungary v Slovakia) with nature. (Gabcikovo-Nagymaros project). Notwithstanding the above efforts, the meaning, content and principles of sustainable development remain unsettled in international law ( Hueting R,1990). However, one of the most popular definition of SD is that contained in the Brundtland Report.( Hueting R, 1990).

The Brundtland Report defines SD as, "...development that meets the needs of the present without compromising the ability of future generations to meet their own needs...". (Towards Sustainable Development). This definition which has become more universally accepted, redefined the concept of development to include the attainment of basic needs for all people, the improvement of opportunity for better life and maximizing present human interest without depriving future generation of the same (The World Commission). Indeed, the main characteristics of SD as stated in the European Union's Fifth Environmental Action Programme are:

- a. To maintain the overall quality of life
- b. To maintain continuing access to natural and built resources
- c. To avoid lasting environmental damage.

Thus the components of SD can be exploited meaningfully by people provided their well-being and good living standard are guaranteed. The [United Nations Conference on SD](#) (UNCSD), also known as Rio 2012 was aimed at reconciling the economic and environmental goals of the global community. The elimination or reduction in noise pollution therefore, is one way of enhancing the achievement of this objective.

***Noise:***

Noise has been defined as any sound undesired by the recipient; it is also number of tonal components disagreeable to man and more or less intolerable to him because of the discomfort, fatigue, disturbance and in some cases, pain that it causes (second European Community Action Programme on the Environment 1977-1981). In other words noise means any unwanted and annoying sound that is intrinsically objectionable to human beings or which can have or is likely to have an adverse effect on human health or the environment (Section 18 of the Noise Standards Regulations, 2009a). Noise therefore is a form of pollution.

***Pollution:***

Pollution is the process of making land, water, air or other parts of the environment dirty and unsafe or unsuitable to use (Alina Bradford).This can be achieved by introducing a contaminant into a natural environment, although the contaminant doesn't need to be tangible. For example light, sound and temperature can be considered pollutants when introduced artificially into an environment. Noise pollution happens when the sound coming from planes, industry or other sources reaches harmful levels.

It has been submitted in some quarters that while environmental quality is an essential element of the development process, in practice, there is considerable tension between economic and environmental objectives as a result of certain factors like noise pollution (Subash Kumar v. State of Bihar AIR 1991)

### **3. Sources of Noise Pollution:**

One of the major pollutants that can affect the quality of life of an individual and general environmental damage is noise pollution. Noise is a prominent feature of the environment and can be broadly classified into two, namely; Environmental noise and Occupational noise.

Some of the sources of Environmental noise are car stereo systems, motorcycles, airplanes, traffic, construction activities, power saws, snow blowers, electrical home appliances and churches. (Omubo-Pepple, V.B, Briggs-Kamara M.A, and Tamunobereton-ari, I, 2010). Others include buzzing of generators, honking of car and truck horns and sirens from endless convoys of government officials, high-toned music blared from shops along busy streets as well as speakers mounted on church and mosque's roof-tops. Environmental noise also includes a combination of different kinds of noise from the environment (Stockholm Report), for example aircraft, motor vehicles, trains, noise from public address systems, religious worship institutions, generating sets, amongst others.( Akinbulire, T.O, Oluseyi PO, Awosope, C.O.A and. Okoro, O.I ). The occupational noise has to do with noise that is produced at the workplace-the industries like machineries and factory equipment.

### **4. Health Effects of Noise Pollution:**

Globally, noise represents a serious public health problem. It disrupts the tranquility of the environment and negatively affects human health. This should also be the case in Nigeria. Noise can lead to hearing loss, sleep disruption, cardiovascular disease, social handicaps, reduced productivity, impaired teaching and learning, absenteeism, increased drug use, and accidents (Lisa Goines and others, 2007). Noise like chronic stress, adversely affects general health and well-being. It can impair the ability to enjoy one's property and leisure time and increases the frequency of antisocial behavior. It adversely affects future generations by degrading residential, social, and learning environments with corresponding economic losses (Lisa Goines and others).

An important document demonstrating that noise is not only a nuisance, but also an important factor affecting physical health is the World Health Organization's(WHOa) 'Burden of disease from environmental noise (WHOa ; Alina Bradford); the WHO's 'Night Noise Guidelines' (WHO b)and the 'Good practice guide on noise exposure and potential health effects from the European Environment Agency (EEA) . A widely accepted scientific fact is that living in black acoustic zones, where the equivalent sound level is higher than 65 dB(A) put an urban population in a high risk status for numerous subjective effects of noise, including psychological, sleep and behavioral disorder(Sunday Olayinka Oyedepo). The WHO quantitative tool for assessing noise-related health impacts estimated that the health impact of environmental noise in western Europe could be up to 1.6 million healthy life years lost annually through ill health, disability or early death (World Health Organization Regional Office for Europe).

Medical tests suggest that noise affects the nervous and hormonal systems, which in turn disrupts the stability of the healthy human organism. Every exposure to loud noise destroys some cells, but prolonged exposure damages a larger amount of cells, and ultimately collapses the organ of corti, which causes hearing impairment or deafness particularly among children from about 85 dB. In addition doctors and scientists have now medically confirmed that noise disturbs the biological organisms and their respective functions of the humans. Fire crackers and other excessive and continuous explosives become physically painful giving rise to neurosis, mental illness, cardiovascular diseases,(WHOc ; Berglund B, Lindvall T, Schwela, D, Goh, KT 1999) stomach ulcers and respiratory disorders reducing human life ( Kaur K, 2007 ). In particular, cardiovascular disturbances from 65 dB activates the nervous and hormonal responses, leading to temporary increase in blood pressure and heart rate while disturbances in mental health accelerate the development of latent mental disorders and up to 80 dB associated with increase in aggressive behavior (Goines Lisa and others).

Psychiatrists and psychologists have recently observed that noise has certain relation with physical health causing tension resulting in problems such as speech interference, annoyance, fatigue, sleep interference and emotional distress. Noise levels in industries causes interference in efficiency and communication and raises possibilities of accidents.( Lal's Commentary ). For instance, impaired task performance, at school and at work places, increases error and decreases motivation for reading attention, problem solving and memory and is most strongly affected by noise.

The U.S. Environmental Protection Agency authored a pamphlet in 1978 (Noise Abatement and Control 1974) that suggested a correlation between low-birth weight babies (using the World Health Organization definition of less than 2,500 g (~5.5 lb) and high sound levels, and also correlations in abnormally high rates of birth defects, where expectant mothers are exposed to elevated sound levels, such as typical airport environs.

Noise also has effects on animals and other living things. For instance, it is said that birds avoid migrating to places where noise level is above 100 Db (Hakeem Ijaiya, <sup>2014</sup> ) while mammals, fishes and even birds may also suffer miscarriage (Lal's Commentary ) In proof of the correlation between noise pollution and health, socio acoustic survey was conducted among 520 individuals (age <30 years) in Delhi city. The survey reviewed that greater than 50% of the people are disturbed from road traffic and horn noise and 17% are annoyed due to air craft noise (Garg N, Sharma O, and Maji S, 2011).

#### **5. Noise Levels in Cities in Nigeria:**

In Nigeria several studies have shown that the growth in industrialization and population are directly related to increase in noise level (Sunday Olayinka Oyedepo ); that in metropolitan cities the noise level in most areas exceed the specified standard limits (Ugwuanyi, J.U, Ahemen, I, and Agbendeh ; Ighoroje A.D.A, Marchie, C and N wobodo E.D, 2004 ). A study by Ugwuanyi conducted in Makurdi Nigeria found that the noise pollution level in the city was about 3-10 dB above the recommended upper limit of 82 dB(A). The results of the studies of major cities in Delta state by Anomohanran and Osemeikhian (Anomohanran O, Iwegbue CMA , Oghenerhoro IO, and Egbai, 'I.J.C , 2008 ) show that the average day time noise level for Warri exceeded the WHO permissible limit of 90 dB. All other locations have an average noise level lower than WHO limit but within the range of 75-85 dB. The peak noise level for the day time exceeded the WHO permissible limit for all the towns except at Abraka with a peak of 76.2 dB. Oyedepo (Sunday Olayinka Oyedepo ) in a more recent study also confirmed that the level of noise in most parts of Ilorin is higher than the permissible level provided in Tables I-IX of the First Schedule to the Regulation ( Noise Standards Regulations 2009b).

What can be distilled from the above discussion is that there is a correlation between noise pollution and sustainable living. In other words that the higher the level of noise pollution , the more the chances that victims will suffer more severe health challenges which impacts on their standards of life. Notwithstanding this increasing trend of noise pollution and the adverse health implications, very little attention is paid to the control of noise pollution in Nigeria and there is also lack of data on the relationship between noise pollution and health.

#### **6. International regime for the control of noise pollution:**

The Convention concerning the Protection of Workers against Occupational Hazards in the Working Environment Due to Air Pollution, Noise and Vibration in its article 4 provides that state parties are encouraged to establish National laws or regulations that shall prescribe measures to be taken for the prevention and control of, and protection against, occupational hazards in the working environment due to air pollution, noise and vibration. In addition, the Occupational Safety and Health Agency (OSHA) has set the danger level of 95 decibels (dB) and above for 4 or more hours per day as likely to induce permanent

hearing impairment (Kaur,K). The WHO has proposed the time base guideline for LAeq for 16 h daytime and 8 h night time, and the environmental noise level of 70 dB (A) LAeq, 24 h for industrial, commercial, shopping and traffic areas, indoors and outdoors areas to prevent impairments (Birgitta, B,1999).

### **7. Noise pollution under the Indian laws.**

The Penal Code (India) is the major enactment in the field of criminal law. Under Chapter XIV of the Code there are certain sections dealing with offences affecting public health, safety, convenience, decency and morals which have a direct bearing on noise control. For example, section 268 provides that a person is guilty of public nuisance who does any act or is guilty of any illegal omission which causes any common injury, danger or annoyance to the public or to the people in general who dwell or occupy property in the vicinity, or which must necessarily cause injury, obstruction, danger or annoyance to persons who may have occasion to use any public right. Under section 278, whoever voluntarily vitiates the atmosphere in any place so as to make it noxious to the health of person in general, dwelling or causing on business in the neighborhood or passing along a public way, shall be punished with fine not exceeding five hundred rupees. However, where the offence is not punishable under this code, the punishment shall be a fine not exceeding two hundred rupees. In addition, the Criminal Procedure Code, 1973, Chapter X (Sections 133-146) prohibits the use of microphones and loudspeakers, which disturb old and informs students' infants and others in the name of religions activities. On its part, the Motor Vehicles Act, 1939 prohibits the use of certain types of horns and at certain places like Hospital, Schools etc. The Noise Pollution (Regulation and Control) Rules 2000 provides also empowers the State Government to categorize the areas into industrial, commercial, residential or silence areas/zones for the purpose of implementation of noise standards for different areas. As with several other local enactments State governments are also competent to enact rules for the control of noise pollution within their states. Which mandates its members to develop noise maps and action plans to monitor noise regularly along with Geographic Information System (GIS) mappings using a validated noise model. Recently, India launched its first national air quality index as a further means of monitoring its rate of air pollution.

As a way of further reducing traffic noise, Delhi adopted land-use planning and management strategy like placing as much distance and non compactable activities like parking bays and open areas between source and receiver (Garg and others).

Furthermore, the shape, orientation and location of building and arrangement of internal spaces can be professionally chosen to reduce potential noise, problems. European studies (Morgan, P.A, Nelson, P. M and Steven, H) have also shown that the difference in noise level between quietest and noisiest tire/road surface combination was 9dB (A) for cars and vans, and 7dB (A) for trucks. The study further confirmed that porous asphalt has the potential for reduction of vehicle noise by 5-8dB,poro-elastic pavements that combine porous structures with a soft aggregate showed reduction for normal tyres (10-12dB) and studded tyres (13-15dB) (Amundsun A.H, Klaeboe R, A ).

With respect to the kind of insulation and absorption properties of materials, laboratory experiments serve as benchmarks for selecting best acoustical materials for achieving a desired noise reduction. Presently, in India the straightening facades of dwellings, use of high sound isolative windows and doors, proper treatment of ceiling, and re orientation of interior spaces in a dwelling have proved to be the best measure for acoustic comfort. A validated road traffic noise model integrated with GIS interface is essential for noise prediction forecast and management. Although various kind of noise barrier are available for road traffic noise abatement, the choice of a suitable barrier compactable for a particular road network will depend on structural aesthetic, economical, constraints, acoustic, attenuation, compatibility with environment, installation, maintenance safety. Vegetation can also be used as an aesthetically and relatively inexpensive means of reducing noise. Notable experiments conducted under Indian conditions proved the effectiveness

of vegetation for reducing noise (Santra, SC and others). A minimum of 2.5m wide dense shrubs followed by medium height trees are effective in offering 2-5dB(A) noise reduction from traffic noise in residential areas. Indeed Delhi has an uninterrupted history of official patronage to maintain its horticultural diversity since time of imperial days (Garg and others). Like India, Nigeria also has provisions on noise regulation scattered in various pieces of regulation.

#### **8. Legal and institutional framework for the regulation of noise pollution in Nigeria:**

(1) *Policy:* With respect to policy Nigeria has the National policy on the Environment of 1988 section 3.12 of which provides that programmes will be established to ;

- (i) set up standards including acoustic guarantees;
- (ii) prescribe permissible noise level in noise prone industries and construction sites and to ensure the installation of noise dampers on noise equipment;
- (iii) Prescribe guidelines for the control of neighborhood noise especially with respect to construction sites, market and meeting places.
- (iv) Ensure compliance with stipulated standards by conducting periodic audit checks.
- (v) set up quiet zones especially within game parks, reserves and recreational centres;

(2) *Legal:* Under Common Law an aggrieved person can bring an action in Tort for damages suffered from nuisance from an offensive noise and also injunction to stop any further emission of that noise (Luxmoore J; Tebite vs. Marine). The common law remedy through court action does not provide a comprehensive and reliable solution to noise pollution in Nigeria as a result of some inherent socio economic factors like the frustration of forensic battles in Nigeria where the adversary system of justice system is operated, the traditional inclination of Nigerians to avoid legal confrontation with neighbors or other people and the high cost of legal fees (Oyelade OS).

The regulation of noise in Nigeria is constitutionally provided for under section 20 where the government is encouraged to ensure the protection of the environment. Apart from the constitution, the first major attempt by the Federal government to regulate and control the levels and impact of noise in Nigeria was through the establishment of the levels/standards by the Federal Environmental Protection Agency (FEPA) to which an employee may be subjected to. The Federal Environmental and Protection Agency (FEPA) recommended that daily noise exposure for workers in the industry should not exceed 90 decibels (dB [A]) daily for 8 hour working period. The FEPA guideline is National Environmental Protection (Pollution Abatement in Industries and Facilities Generating Wastes) Regulations and Noise Pollution of 1991. The rule among other things enjoined the creation of designated industrial layouts separate from residential areas and to create buffer zones separating industrial areas from residential areas (FEPA guideline). In addition to this there is also the National Guidelines and Standards for Environmental Pollution Control in Nigeria of 1991 meant to monitor and control industrial and urban pollution.

However, these guidelines were observed more in the breach and coupled with inefficiency of the statutory body for enforcing and implementing the regulatory laws not much was achieved in terms of managing the pollution from noise.

Before the establishment of the Noise regulation by NESREA, (Noise Standards Regulations, 2009b) there is the Factories Act (1990 Law). This Act is concerned with noise in factories. It is a major failing of the Act that it does not specify any standards and care to be taken by a factory owner in respect of noise emission.

This lacuna was filled by NESREA through its framework provision in noise pollution (Noise levels). By its section 22 (1) the NESREA Act undertook to;

- 1) Identify major noise sources, noise criteria and noise control technology and
- 2) Make resolutions on noise, emission, control, abatement as may be necessary to preserve and maintain public health or welfare.

Section 22(2) is to the effect that the agency shall enforce compliance with existing regulations and recommend programmes to control noise originating from industrial commercial, domestic, recreational sports, transportation etc.

In compliance with section 22(2) of NESREA, the Agency established the NENSC as the principal regulation on noise pollution. This regulation seeks to ensure a healthy environment by regulating the noise levels, prescribing the maximum permissible noise levels of a facility or activity to which a person may be exposed (NESREA Act 2007 ); providing for the control of noise and, giving effect to the legislation.

Regulation 3 makes it an offence to emit noise in excess of the permissible level. For residential buildings the level should not exceed 50db (daytime) and 35db (night 10pm -6am) while noise level from factory or workshop should not exceed 70db daytime and 60db night. Daily noise exposure to the workers should not exceed 85db for an 8hour working period. Regulation 5 prohibits the generation of certain kinds of noise by reference to place and time. The kinds of noise include;

- a) Yelling, laughing, clapping, hooting, pounding, singing and whistling.
- b) Selling or advertising by shouting, ouster or amplified sound.
- c) Operating any equipment in connection with construction.
- d) Detonating fireworks or explosive devices not used in construction.
- e) Operating any auditory signaling device including ringing of bells, gongs and the blowing of horns, sirens, whistles production, reproduction or amplification of sound.

## **9. Issues and challenges with regulation of noise pollution in Nigeria**

*(i) Legislation.* Unlike in India, there is currently no specific law on the management of noise pollution in Nigeria causing States and enforcement agents to adopt ad hoc measures to fill the gap. The Factories Act is concerned with noise in the work place only. It is obsolete and does not specify any standards and care to be taken by a factory owner in respect of noise emission. The regulations by FEPA and NESREA since not creations of the legislatures are not laws and thus only of persuasive import. The regulations are also scattered and subsumed in several other enactments. For example, Part III of the regulation provides for the application, issuance and revocation of Noise Permit but the procedure for such application and the revocation is specified in another regulation the National Environmental (Permitting and Licensing System) Regulations, 2009. This therefore makes the regulation an incomplete document as recourse necessarily should be had to another document the Permitting and licensing system regulation 2009. The lack of a comprehensive law to deal with the above issues is a challenge for Nigeria.

*(ii) Regulation.* Regulation 5 of the NENSC on noise pollution prohibits the generation of certain kinds of noise by reference to place and time. Exceptions to regulation 5 are contained in sub paragraphs 3 and 4. For exceptions under paragraph 3 permit is required unlike the exceptions under paragraph 4. A combined



reading of the exceptions show that almost every type of noise with the exception of noise from notorious night party is exempted thus rendering the regulation ineffectual. The challenge here is the indiscriminate use of exceptions to render the regulation ineffective.

**(iii) Sanction.** Regulation 17 of NENSC provides for a fine of N50, 000 or imprisonment up to one year or both fine and imprisonment for violation of the noise regulation. There is also additional fine of N5, 000 for individual offender for every day the offence persists, for corporate body the penalty is N500, 000 and additional fine of N10, 000 for every day the offence subsists. These paltry fines do not serve as deterrent measures since most individuals and corporate bodies can easily afford them and so continue to emit noise.

**(iv) Enforcement.** The various enforcement agencies rarely work as a team and sometimes are at cross purposes. The discretionary nature of the permit-granting regulation 5(3) provides a lacuna for much activity to go on without any permit leading to corruption. This is compounded by deep rooted culture of non-compliance to laws and regulations on the part of the citizenry. Recourse to the judiciary has also not been of much help. In the case of Moore v. Nnado (Moore v. Nnado) the plaintiff sued the defendant alleging among others, that the defendant caused him nuisance through excessive noise in his adjoining palm wine bar by playing his stereogram unreasonably loud and late into the night. He averred that he had to seal up his louver windows with sheets of plywood, spending a greater part of his time in the backyard of his house because of the noise. The court held that the defendant's misfeasance was actionable. Also, in M.K.O Abiola v. F.O. Ijoma (Abiola v. F.O. Ijoma) the plaintiff was able to prove that not only does noise from the clucking of the chickens and the odour of their droppings disturb his rest and peace, but rodents generated by the poultry do migrate from the defendant's poultry into plaintiff's residence. The court held that in any organised society annoyance in the form of unacceptable noise levels from the activities of neighbors must continue to enjoy the court's intervention. This is in contradistinction with the situation in India where the judiciary has had several opportunities to expand the frontiers of the various laws and regulations including interpreting the fundamental right to life and personal liberty guaranteed under Article 21 of the constitution to include the right to enjoy unpolluted air, water and a wholesome environment. The challenge therefore is ineffective law enforcement (Gloria Orié).

**(v).Awareness and Data.** Unlike India, there is generally lower awareness of the nexus between the level of noise pollution and the possible health implication on the populace and the fact that such ill health affects the quality of life. There is also lack of awareness of the impact of noise pollution on humankind and the environment resulting in the absence of informed decisions and behaviours. Availability of data will enable policy makers to make informed decisions and effective regulations. Therefore, creating the necessary awareness and building the relevant data is a task that the government at all levels and other stakeholders such as town planners, architects and environmental engineers, Civil Society Organizations and the private sector must contend with

## 10. Strategies for effective regulation of noise in Nigeria:

**(i) Legislation:** There is need to have a single specific comprehensive law on noise pollution. This can be achieved by reviewing and harmonizing the various laws and regulations. The National Assembly and state Assembly should also pass a bill making it mandatory for respective governments to enact similar laws to combat noise pollution in Nigeria.

**(ii) Regulation:** Regarding the indiscriminate use of the exceptions which rendered the regulation ineffective, the strategy is to reverse the trend. Exception should be granted only when it is in the public interest to do so and for specific time and period.

**(iii)Sanction:** The use of the option of fine and paltry sum trivializes the seriousness of the problem of

noise pollution. As a deterrent measure fine for first offenders should be increased by 200% while second offenders should have no option of fine.

**(iv) Enforcement:** To make enforcement more effective the law enforcement agencies must work as a team through better inter agency coordination. In addition, the citizenry should be enlightened through public education to ensure a culture of compliance. Furthermore, as in India the judiciary should be encouraged to be more proactive to expand the frontiers of environmental litigation such that the fundamental right provisions will include the right to a noise free environment.

**(v) Awareness and Data:** There is need for serious and massive enlightenment awareness campaign to educate the populace on the health implications of noise pollution. Such awareness will also make the people to appreciate the nexus between noise pollution and sustainable living. This can be achieved through TV, radio, newsreels and cinema halls. In this regard one commends the government of Lagos state for declaring 17<sup>th</sup> of October (with effect from 2014) no horn day in Lagos State a good awareness strategy by the government but much more is needed. Additionally, availability of data mostly through research and development will enable policy makers to make informed decisions and effective regulations. This is the case with India which recently launched its first national air quality index as a further means of monitoring its rate of air pollution.

## **11. Conclusion:**

Globally, noise represents a serious public health problem. This is also the case in Nigeria. Despite the evidence about the many medical, social, and economic effects of noise, the Nigerian society, seem oblivious to the obvious fact that our cities are becoming increasingly more polluted with noise and the urgent need to appreciate the nexus between noise and health. Besides, there are issues with the relevant noise control regulations and enforcement of same.

This paper examined the correlation between noise pollution and SD and the effect of noise pollution in the attainment of SD. It also reviewed the regulations for the management of noise pollution in Nigeria and compared same with the position in India. While noting that average peak time noise level in most major cities in Nigeria is higher than the permissible limits, the paper finds that noise has the potential to adversely affect the quality of life of persons and the attainment of SD. It also found that like India, our laws and regulations need review and harmonization. However, the paper noted that the government should encourage research and development to acquire data bank to be used in policies and laws. The Indian judiciary unlike Nigeria's is equally disposed to a liberal interpretation of the right to a healthy environment as essential ingredient of the right to life. Clearly, because laws can change behaviours in ways that benefit society as a whole, the paper concludes that effective management of noise pollution in Nigeria using legal imperatives is indispensable to the attainment of good standard of living and SD in Nigeria. It therefore, made some salient recommendations to that effect.

## **12. Recommendations:**

- (i). The various laws should be harmonized to establish a single comprehensive law to control occupational and environmental noise pollution.
- (ii). The various regulations should be harmonized and the National and state Assemblies should pass a bill making it mandatory for all states and local government of the federation to enact law/edits on noise.
- (iii) The NENSC regulation particularly articles 3,5 and 17 should be amended to make the regulation more effective and enforceable. The provision for exercise of discretion with regards to regulation 5

- (3) should be removed to avoid abuse. Option of fine should be limited to only first offenders. Fine should be increased by 200% to serve as deterrent.
- (iv) Government and other stakeholders should embark on massive public education and enlightenment campaign through TV, radio, newsreels and cinema hall amongst others.
- (v) Government should encourage research and development to acquire data bank to be used in policies and laws.
- (vi) The law enforcement agencies should work as a team through better inter-agency coordination.
- (vii) The judiciary should be more proactive to expand the frontiers of environmental litigation such that the fundamental right provisions will include the right to a noise-free environment.

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