Fusion of Traditional and Modern Environmental Protection Models and Laws in Nigeria: A Case Study of Lagos and Akwa Ibom States Environmental Protection and Waste Management Laws

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Abstract
The paper focused on fusion of traditional and modern environmental models and laws in Nigeria: a needful climate for investment. The paper observed that Nigeria is enveloped with solid waste in the drains, open spaces fronting public and private property, business offices, restaurant, food-is-ready etc. with attendant public health challenges. The paper found that the relevant legal and regulatory frameworks currently in place have proved inadequate to curb abuses to the human and natural environment in Nigeria. Also, the paper noted that modern environmental model like Sustainability Science does not recognize local knowledge in its quest to bring all stakeholders, disciplines and professions together beyond the usual stereo-type social science exclusivity, in order to find a more sustainable solution to emerging environmental challenges like solid waste management in cities and rural areas. The paper therefore recommended, among other things, the fusion of both traditional and modern environmental models and laws in Nigeria, with a view to rekindling environmental protection equity and stewardship between the government and local people whose activities impinge against good and friendly use of the environment.

Keywords: Environment, Traditional and Modern Models, Sustainability Science, Local Knowledge

Introduction
Traditional environmental protection model is based on and relates to local knowledge of indigenous people and rural people in Nigeria and other countries of the world. Local knowledge of environmental protection has remained a “living law” (Cotterrel, 2009) of traditional society the world over. This living law which is customary law is not only an inheritance but it is also inheritable from generation to generations in the traditional settings. Nevertheless, education, religion and agricultural science of the West have influenced to a greater extent the local knowledge in several ways (both positively and negatively) but have not been able to erase it since the living law is arguably immutable. It is against this background that international community has felt a need to emphasise in almost all the (IELs) International and Environmental Laws and treaties that the principles contained in such IELs and treaties should not only be implemented by member States in their national laws but they should also involve local people in policy formulation and implementation. The utility of this is that since the local people in the majority of cases are mostly affected by environmental
degradation, therefore, it is morally right to carry them along in terms of identifying their culture, needs and challenges and in seeking to make policies which will address such identified concerns without negating the philosophy behind good practices. In this connection, modern environmental protection model which emphasises sustainable utilisation of environmental resources for the progress and health of the present and future generations can be successful and deepened if local knowledge of environmental protection is integrated deliberately into the new sustainability science model of environmental protection.

This paper examined the problems of traditional and modern solid waste management practices and also appraises the impact of Lagos and Akwa Ibom States Wastes Management Laws as case study. This work will also examine the impacts of road designs and drainage regulations in Nigeria on solid waste management in rural and urban areas in Nigeria. Finally, this paper will make recommendation, which may be premised on the principles of environmental responsibility, buy back arrangement (just like the recall process whereby chemical and plant industry reward individuals who return empty used plastic containers) and sanctioning in the form of fines in order to curb environmental impunity and thereby enthrone a clean and healthy environment and also create investment climate in waste to wealth culture in Nigeria just like in Sweden (Bakare, 2016).

Fusion of Traditional and Modern Solid Waste Management in Nigeria

In the olden days, waste which has severally been defined as unused or discarded materials except with improvements for further use, was relatively low and disposal of such waste or refuse did not pose any significant challenge to both the environment and human health (Chukwuemeka, Ugwu and Igwegbe, 2012). The rate of growth in population of the people, economic activities and packaged food and consumption generally was low vis-à-vis enough available land for waste disposal (Butu and Mschelia, 2014). According to oral interview and transect, people in rural areas traditionally practice solid waste management in form of manure, burying and burning methods. For example, the rural people also use cow dung and goat manure to plaster their mud houses and as manure instead of allowing it to litter the environment. They also dispose weeds and grasses from their farms by burying them farm beds and ridges and heap them on farm boundaries and around trees on the farmland. It is said that prior to the enactment of the first Township Ordinance in Nigeria, issues of physical planning were handled based on the existing traditional governance structure while the colonial masters only built roads meant for the evacuation of their export crops out of Nigeria. Local or village roads were created and maintained by village people and youth or age groups (Okorodudu-Fubara, 2000). Also, drainages were provided in cities where the colonial masters dwelled while the village roads had roadside pits dug by the local people for rain water collection. There was absent of provision stores, “Food Is Ready” (i.e. roadside food vendors), mechanic workshops among other solid waste generating sources in the traditional society. The major means of transportation was bicycles and wooden but non-mechanically propelled trucks at the time. The available bicycle repairer workshops did not generate damaging solid waste in the environment.

Nevertheless, streets in the communities across Nigerian rural areas were regularly maintained by the women and youth groups. Also, fines of different forms were imposed on defaulters of sanitation exercise. It was usually fun and a rallying point for the people in their
communities. However, as a result of western education, sons and daughters of the local people started moving out of their traditional villages to cities for studies, acquisition of skills and employment opportunities. This, undoubtedly, led to urbanisation with attendant negative consequences on the once coherent custom and culture, which bonded the local people. The cities which hitherto harboured a relatively low number of residents eventually exploded in population of people by reason of rural-urban migration. As a result of this development, the existing facilities and infrastructure in cities across states and FCT became overstretched particularly due to poor maintenance culture in the country with attendant environmental protection challenges. From the colonial days where Township Ordinance and the Nigerian Town and Country Planning Ordinance with emphasis on public health and safety concerns and up and till now, issues relating to solid waste management have not been given the attention they deserve at all levels of government.

The State became the sole authority to evacuate solid waste and other waste stream in the country because waste generation is occasioned by the State’s industrialisation and economic policies. Again, the pre-commercialisation and privatisation policies of the then government in Nigeria created in the citizen the sense of “government does everything philosophy”. (Attah, 2016) This gave birth to absent of good neighbourliness in cities and a breakdown in the highly cherished sense of communal bonding among the local people of the traditional African setting. A fortiori, most Nigerian citizens residing in cities have now regrettably formed the habit of dumping their wastes of all streams in drainages, open spaces, street sides and unauthorised dump-sites without minding the corresponding health implications on them and the environment. The systematic failure of sectoral policies on environmental protection on the part of government and its agencies saddled with environmental protection matters have induced impunity on the part of the citizenry. However, States and the FCT in Nigeria have since put in place their own environmental protection laws and ministries and boards, as the case may be, besides the NESREA Act and its regulations, to ensure compliance with environmental protection culture. In spite of these frameworks, solid wastes in particular, in States and FCT are littered indiscriminately on road sides, drainages, open spaces, unapproved dump-sites among other places. The menace of solid waste is reported to have reached 3.2 million tons annually in Nigeria. (Akindutre and Alebiosu, 2014) The States and FCT have applied or committed fewer resources to this challenge. It is worrisome that in the 21st century, most states do not see the need to embrace integrated solid waste management not however in its present forms which still places the States as the sole driver of the entire process in the face of paucity of funds to the States in Nigeria. Moreover, report has it that lack of adequate funding and excessive population, lack of trained professionals or waste managers, lack of effective monitoring and control, government does everything have been identified as factors militating against the success of modern solid waste management in States and FCT in Nigeria (Attah, 2016).

From the discussion above on the role of traditional and modern environmental protection models relating to solid waste management in Nigeria, this work found out that there is a disconnect between States environmental protection laws, regulations, policy and regulatory bodies and the local people and local knowledge in solid waste management policy formulation and implementation across the States in Nigeria. The modern environmental
protection laws, regulations and policy need to incorporate local knowledge of environmental protection responsibility on the one hand and the current sanctioning or penalties provisions and buy back principle currently adopted in extended producer responsibility (EPR) in the EEE and UEEE arrangements in Nigeria. The inclusion of such initiatives or mechanisms will ultimately create and promote a share not only public private partnership (PPP) but will also make the citizenry part of the entire solid waste management value chain in all the States in Nigeria, with the result that all waste will become wealth and human and the environment in Nigeria will become clean and healthy.

Lagos Waste Management and Authority Law (Lawma)²
This law has twenty-nine sections with one schedule only. This law establishes an “Authority” called ‘the Waste Management Authority’ and saddled it with specific environmental functions. ³ The Authority’s functions are supervised by a Governing Board established under this law.⁴ The membership of this Governing hereinafter called “the Board”⁵ includes three local government chairmen each drawn from the existing three senatorial districts in Lagos. Assessment of the functions ascribed to this Authority reveals not only the objective of this law to protect the environment in Lagos State but it also reveals a prima facie case of a statutory revolution of a sort against the constitutional provision to wit: the function of refuse disposal is conferred on the Local Government Councils in Nigeria.⁶ Also, some of the provisions and/or function in this law are indirect conflict with the provisions of Federal Road Safety Commission Act⁷ to wit: the removal of ‘obstruction in any highway’. However, in order to legitimate and validate this law, the membership of the said Authority is infused with three Local Government Chairmen selected each from the present three senatorial districts in Lagos State. The essence of this legislative inequity is to make the involvement of the local government chairmen appear as if the local government councils have consented to go into participation with the Lagos State Government in the implementation of this law on environmental management contrary to the intendment of the constitutional provision.⁸

³ Ibid Section 4(1) and (2). For completeness and clarity, we wish to produce the section hereunder:
S. 4(1) The functions of the Authority shall be to:
(a) clean street, remove, collect and dispose of domestic, commercial and industrial waste;
(b) remove and dispose of abandoned and scrapped vehicles;
(c) remove and dispose of carcass of dead animals from public places;
(d) prepare and update from time to time the master plans for waste collection and disposal in the cities, towns and villages in the State and control resultant waste system within the State;
(e) approve and monitor all waste disposal systems in the State;
(f) make provision for waste management services to State agencies, local governments, industries, business entities, private persons within the State by receiving waste at the Authority’s facilities pursuant to contract agreement between the Authority and such other party;
(g) issue, renew and revoke licence of private waste collectors;
(h) do all such acts as are necessary or incidental to the proper discharge of its duties under this Law.

(2) The Authority may carry out its functions in association with any other person or body lawfully empowered to do so in accordance with the provisions of this Law.

⁴ Ibid S. 2(1).
⁵ Ibid.
⁶ 4th Schedule to the Constitution Cap C23 LFN 2004, S. 1(h).
⁸ 4th Schedule to the Constitution. See S. 2 generally.
Nevertheless, this law contains some relative laudable and innovative provisions which could drive and positively impact the Lagos State environment, public health and the economy of the State. An examination of some provisions of this law will bring to fore the relevance or otherwise of this law inspite of its revolutionary posture against the provision of the Constitution. Section six of this law clothes the board established under this law – whose functions include the supervision of the Waste Management Authority created under this law, with the power to make regulations, subject to the approval of the Governor, for the efficient implementation of this law. The matters covered by such regulations are outlined in paragraphs “a to f” of this section. The section under review creates financial provisions for waste removal, collection and other services to be provided by the Authority in the State. These financial provisions contain terms, conditions and penalties such as fines, price for the removal and collection of wastes by the Authority or its agents, amount for issuance and renewal of licenses.

The provision of this section has a mixed bag of utilities and adverse impact on the State and the environment on the one hand and on the residents in the State on the other hand. For instance, under this law, Lagos State Government will no longer provide dustbins for public use in the cities, towns and villages as this responsibility shall be assumed by owners or occupiers of tenements in the State.9 This devolution of function of providing of dustbins to the residents or “every owner or occupier of a tenement”10 in the State by Lagos State Government will no doubt free the scarce funds hitherto used in providing the public with dustbins will be deployed in attaining to other pressing and alternative State’s obligations to the people of Lagos State. Also, this participatory, inclusive or “trado-modern waste management approach” (i.e. a combination of traditional and modern) will not only promote a shared environmental consciousness between the residents and the Lagos State Government, it will also afford the residents or owners or occupiers of tenements the role of protecting such dustbins against vandalism through outright violent destruction and/or setting ablaze the waste dumped in such dustbins and thereby damage these dustbins as it is the case presently.

However, this participatory waste management model, no doubt, makes the owners or occupiers of tenements to assume the role hitherto played by the State. This role will transfer to the owners or occupiers of tenements the financial burden associated with the provision, security and maintenance of such dustbins from time to time. It is also the responsibility of every owner and/or occupier of a tenement not only to provide the dustbins but also to pay a fixed price11 for the removal and disposal of waste from such dustbins to the Authority or the private waste collectors as such may be authorised.12 Also, this law ensures that the licensed private waste collectors operate their business of waste removal and collection responsibly. This entails that all waste streams as defined under this law are removed, collected and transported to the designated dump sites or waste disposal sites by the Authority without littering the roads.13 Moreover, every owner or occupier of a tenement and private waste collectors are prohibited from burning or causing to be burnt on a tenement any waste nor dump such waste in an undesignated place in the State.14 The utility of such prohibition is to regulate and protect human health and the environment against the effects of GHG emissions

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10 Ibid.
11 Ibid S. 6(9).
12 Ibid SS. 5(1)(f) and 9(1).
13 Ibid SS 14(b), 15, 16(1) and (2), 17 and 29(d) and (2) respectively.
14 Ibid SS 14(a) and 17(a) respectively.
and diseases which may cause or contribute to irreversible or incapacitating illness among the residents in the State. Also, this law makes provisions for recycling of waste through various integrated waste collection and disposal mechanisms and collaborations in the State concerned. These waste management mechanisms and collaborations are not only the phenomenal reflection of the concept of public private partnership model of effective and efficient resource management, it is also a conscious, innovative, trending waste to wealth approach and job creation platform with attendant internally generated revenue creation in the State. The IGR will come from sources such as fees, charges, taxes and fines payable by every owner or occupier of a tenement, private waste collectors and their employees. Although the word “tenement”, for which every owner or occupier is required to provide a dustbin for waste management, is not defined under this law, a close reading of the interpretation section of this law shows that this word is liken to a “dwelling” or “residential home”, “a university” or “school” or “other educational establishments”, “a hospital or nursing home”. However, while every owner or occupier of a tenement is expected to pay for the removal and collection of waste from such tenement by the private waste collectors on behalf of the Authority, under this law, it appears, nobody is held liable for dumping waste drainages by owners or occupiers of tenements within the State.

However, the board has as an additional power the responsibility to conduct research and set standards relative to the maintenance of public drainage and street cleaning in the State. Indeed, these additional functions are akin to the concept of res communis whereby everyone is served by them but nobody is made or held liable for their abuse. Again, there is inherent role conflict between the board’s role in this context and the constitutional funding of local government council, that is, among others, to construct roads and streets and maintain them in exclusion of state government pursuant to the 4th schedule to the Constitution Cap C23 LFN 2004, S. 1(f). Paradoxically, public road drainages blockage and street littering are two endemic areas of environmental abuses and degradation in cities, towns and villages in Nigeria. The state of public road drainages across the country is an index of environmental abuse and degradation. From mega States such as Lagos, Rivers, Akwa Ibom, Kano, Abia, Anambra and others in Nigeria, wastes are dumped in the gutters with attendant blockage flooding and stench. However, residents who live or operate their businesses in front of such filthy and stench gutters do not seem to give a damn to such condition. The situation is so appalling and has inherent public health complications in the long run. Curiously, the traditional monthly sanitation exercise usually carried out in the States in Nigeria though, by “interested residents”, appears to be a palliative environmental measure and has by extension not mitigated the ever-growing public road drainage challenges in States in Nigeria. Equally, the street cleaners usually sweep sand on the streets into open gutters along the streets with attendant contribution to blockage of public road drainage.

15 Ibid S. 29(e).
16 Ibid S. 5(1)(n) and (L) that is, to “establish and manage an organizational structure for recycling activities in the State” and to “enter into contract with local governments, State agencies, regional authorities and private persons to provide waste management services in accordance with the provisions of this Law and to plan, design, construct, manage, operate and maintain solid waste disposal and processing facilities on their behalf.”
18 Ibid. Schedule I paragraph 4(i). See also s. 2(1), 2007.
19 Ibid, paragraph 4(1)(b) and (d).
However, the Lagos Waste Management Authority Law (LAWMA) has not adequately addressed such monumental environmental challenges which have continued to defy solutions in the history of environmental protection efforts in Nigeria. This is probably one of the reasons that Nigeria’s global environmental performance index in the area of environmental health indicator has constantly been rated and scored low by the international organisation charged with such assessment biennially. This calls for reforms both in law and approach to waste management between State and the people.

**Akwa Ibom State Environmental Protection and Waste Management Agency**

This law has forty-nine sections and two schedules respectively. In terms of its provisions, this law deals with relative profound, diverse, relevant and contemporary environmental waste management matters in the State. In terms of governance structure, unlike the LAWMA Law’s Authority which is supervised by an independent Governing Board, the Akwa Ibom State counterpart which is called an Agency is located within the Governor’s office for control and supervision.\(^\text{22}\) It is doubtful if the Governor can afford the luxury of time with which to exercise control over such an Agency. However, the utility of this type of governance structure is that it goes to show how highly prioritised issues of waste management are to Akwa Ibom State Government. The law creating the board provides for the composition of the board’s Agency to include three representatives of Local Government Councils who shall be nominated by the Conference of Local Government Chairmen in the State. However, it is silent under this law whether the three chairmen may also be drawn from the three senatorial districts in the State just like in the case of LAWMA Law.\(^\text{23}\) In any case, this composition which is similar to the arrangement under LAWMA Law may be designed as a window of escape from the on-going criticisms of unconstitutional usurpation of the function of refuse disposal of the Local Government Councils in Nigeria. Also, the functions\(^\text{24}\) and powers\(^\text{25}\) of this Agency are so wide and unwieldy. For example, these functions and powers cover such subjects as sanitary inspection of premises\(^\text{26}\) and “investigation and control of any petroleum spillage and other gaseous discharges”.\(^\text{27}\) The latter subject directly *ultra vires* the powers of the Agency against the backdrop that NESREA Act has been divested of such function as stipulated under the relevant paragraphs in section seven of NESREA Act.

Nevertheless, this law has excellent and laudable provisions which if properly implemented could enthrone a clean, healthy and sustainable environment in the State. Specifically, this law under review has created twelve distinct sections entitled “Environmental Standards”.\(^\text{28}\) These sections deal with issues of waste treatment and purification. The waste streams include manufacturing waste,\(^\text{29}\) human waste,\(^\text{30}\) spent oil,\(^\text{31}\) chemical waste,\(^\text{32}\) expired drugs,\(^\text{33}\) and others.

\(\text{22} \) *Ibid*, S. 1(3).  
\(\text{23} \) *Ibid*, S. 2(b)(vi) and LAWMA 2007, S. 2(3)(c).  
\(\text{24} \) *Ibid*, S. 6.  
\(\text{25} \) *Ibid*, S. 7.  
\(\text{26} \) *Ibid*, S. 6(n).  
\(\text{27} \) *Ibid*, S. 7(k).  
\(\text{28} \) *Ibid*, SS. 25 to 36 respectively.  
\(\text{29} \) *Ibid*, S. 25.  
\(\text{31} \) *Ibid*, S. 28.  
\(\text{32} \) *Ibid*, S. 30.
harmful waste and including use of gamalin or herbicides, petroleum related activities, petroleum spillage, payment of petroleum discharge fee and industrial gaseous waste. This law pointedly regulates discharge of spent oil “in the course of manufacturing or other type of businesses into any public drain, water course, water gorge and roads verge”. However, the immediate concern and scope of study in this chapter is limited to matters bordered on public drainage blockage by waste and including waste dumped on streets side walks across the country and how this environmental menace could be tackled differently from the model exemplified in the laws under consideration.

A careful reading of sections 28 and 37 subsection 9(a), (d) and (e) respectively, of the Akwa Ibom State Environmental Protection and Waste Management Agency Law under review shows that this law unlike its Lagos State version regulates against the act of depositing or throwing in an open drain any waste that could cause the blockage of and/or render such drain dirty and filthy. This law, however, saddles the Agency with the function of ensuring that such drains are opened and cleared. Nevertheless, while this law like its Lagos State version demands that owners or occupiers or caretakers of tenements should provide standard refuse bins or containers for the collection and disposal of their refuse, the laws in question have failed to go beyond criminalising the act of depositing or throwing in refuse or anything capable of causing blockage of the drains or gutters along the roads in these states, nor making the act a strict liability offence against any owner or occupier or caretaker of a tenement whether developed or undeveloped or commercial or residential which drain is not opened, cleared and free from blockage by refuse or waste.

The provisions of both laws in Lagos and Akwa Ibom States merely provide penalties for any person who deposits or throws anything capable of causing the drains to block or not allowing free flow of waste or rainwater in the drains. From the couching of such provisions, the culprit needs to be caught in the act and not otherwise. In Nigeria’s criminal jurisprudence, the person who alleges must prove it beyond every reasonable doubt. Also, the country is deficient in physical planning in terms of delineation and zoning of land into residential and industrial areas, for purposes of development control, streets and buildings enumeration. Equally, the country lacks documented and traceable information and data on each resident to enable the security agencies deploy such for their operations and law enforcement in the country. These limitations obviously can inhibit the enforcement of such laws. Again, the special focus of the Akwa Ibom State Environmental Waste Management Agency Law on the prohibition of discharge of spent oil without permission from the Agency is commendable when viewed against the environmental impact of such discharged oil on the ecology, surface and underground waters and crops on the farms. However, a cursory look at our cities and towns shows that not only are the cities having the presence and

34 Ibid, S. 32.
36 Ibid, S. 34.
37 Ibid, S. 35.
38 Ibid, S. 36.
39 Ibid, S. 29(1).
40 Supra, S. 28.
41 Ibid, SS. 28 and 37(9)(a).
42 S. 6(m).
43 S. 27.
proliferation of business outfits such as mechanic workshops, generating set repairs shops and sporadic concentration of small and medium enterprises (SMEs), whose electrical power sources are diesel and petrol engine generating sets but also that these business outfits are sited close to public drains along the streets and highways into which the operators of such outfits discharge spent oil, grease and other related wastes and materials on daily basis.

Equally, the eateries, ‘food is ready’ alias “FIR” and restaurants also discharge waste in the drains in the cities and towns in Nigeria. Moreover, the motor parks and markets generate huge solid and green waste and discharge waste in public drains close to such activity centres. Paradoxically, the Local Government Councils whose responsibility it is to establish and maintain such facilities, collect and dispose waste generated there from have had such functions hijacked by their respective State governments. In addition, NESREA’s National Environmental (Sanitation and Waste Control) Regulations, another affront to the Local Government Councils’ constitutional refuse disposal function, has not had its impact felt in the management of waste generated and deposited in public road drains close to these business premises across Nigerian cities and towns. This situation is not only an eyesore but it is also a threat to public health and directly responsible for incidents of flooding and collapse buildings, gully erosions and slums in Nigeria.

**Impacts of Road Construction and Drainage Designs Regulations in Nigeria**

Roads serve as one of the various means of movement of vehicles and people from one destination to another. Road is defined, however, as “a hard surface built for vehicles to travel on”. (Hornsby, 2000) In Nigeria, road construction is usually undertaken by the Federal, State and Local Governments but as Federal trunk roads, and State Government roads. There is, however, no provision for State roads under the Nigerian Constitution but Local Government roads and streets.

This paper examined road drainages and the impacts of dumping waste in them across the States and FCT in Nigeria. Drainage is constructed to allow free flow of water. According to Oyenuga (2010), drainage protects roads from storm and subsurface water and hence it should be designed and constructed to convey water across, along or away from the road and also considering water flow routes and topography of the area. (Chukwuoacha and Ngozi, 2015) Generally, the sizes of drainage are determined by the area of the land and geological or geographic information system (GIS). There is generally no specific size or universal drainage size for rural township roads or highways due to differentiated terrains information and data. However, Lagos State has recently established a “New Road Specifications” document which provides for the construction of culverts, drains and outfall drains for township roads and highways with 60 and 100mm minimum thickness respectively. This underscores the importance of drainages to roads and pavements. From the examination of road and drainage construction above, it is important that the drainage should be designed and constructed in a proper manner so as to prevent flooding, quick deterioration of roads and reduce cost of maintenance. This explains why Lagos State new road specifications provides

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44 2009, S. 1 No. 28.
47 *Ibid*.
that rural and townships roads to be constructed must be designed to last for 10 and 15 years and highways for 20 years, respectively.\(^49\)

However, there is a reprehensible attitude among most Nigerian citizens in both rural and urban areas across the States and FCT, whereby people dump their biodegradable and non-degradable waste in the drainages fronting their residences, business places, developed and undeveloped-unoccupied property, with attendant blockage of water passage in such drainages. This untoward practice constantly causes water to overflow from these drainages across the roads into farmlands, residences and business places and damaging human lives, property and the environment. Also, the stagnant waters and waste in such drainages constitute sources of various sicknesses ranging from malaria to cholera and other communicable diseases. There is therefore a need to reform the existing environmental protection laws to apportion to the citizens a shared responsibility of clearing the drainages fronting their residences and other private and public places in the rural and urban areas across the States and FCT. Also, laws should be reformed to provide for buyback of such waste from the people. With this policy in place, waste will attract monetary values and people will no longer throw away their waste nor dump such waste in drainages or roadsides and open spaces.

In respect of solid waste generation, collection and recycling including provision for dumpsites, the provisions of the proposed environmental protection law should specify in detail the waste stream to be generated by the people for which such waste should be sorted, weighed and paid for by government licensed private waste collectors for onward transmission to designated recycling warehouses and plants in the State. Any class of waste which may not be recycled due to their organic nature and/or lack of market or technology should be dumped in approved dumpsites pending when alternative uses could be developed. In this way, the principle of shared environmental protection responsibility under a mutual beneficial system and buyback process of packaged and other manufactured goods in the traditional EPR herein juxtaposed by the State become very useful panacea to cut down or reduce the likelihood of continued rising incidents of solid waste dump in drainages and other available public and private places, including the markets and motor parks. Also, job creation will naturally grow out of the value chain in the form of solid waste generation, collection and recycling in the short, medium and long term of this system or policy.

Imposition of special environmental protection levy and fines on persons for failure or neglect to clear blocked drainages in front of private properties is an aspect of the reforms to provide for payment of a uniform sum of money as general environmental protection levy for sell or distribution in any outlet of packaged and other manufactured goods in the State. There is also a penalty of a fine by any person(s) who fails or neglects to clear regularly blocked drainages in front of his or her property. The proceeds released from these sources should be utilised to pay for waste collected from person(s) in residences and business places and payment to other stakeholders in the value chain. Also, the proceeds from the sale of the recycled waste will constitute internally generated revenue to the State. In all of this process, the State should only play a minimal role in managerial process. The role of the State therefore should be the provision of policy guidelines and legal framework only. The establishment of state joint local council and village heads environmental protection committee (SJLCVHEPC) is borne out of the desire to integrate the local people and their

\(^49\) Ibid.
knowledge of environmental protection in the modern approach of environmental protection with a view to rekindling environmental responsibility culture of the local people encapsulated in the village heads in council. The local government council environmental department is strategically positioned to collaborate with the local people to make the system and policy work through public enlightenment and education of the local people on the need to keep their environment clean and healthy. In terms of logistics, the State and Local Council should evolve a system of getting around it from the provision of the “state joint local government account”.50

For the effective and lawful participation of the village heads in waste management or environmental protection matters hereof contemplated, the reform should provide for the amendment of the existing traditional rulers laws in States to vest this institution with the function of ensuring that their subjects in each village to participate and observe the provisions of the environmental protection laws accordingly. The law also should provide for timely and regular evacuation of waste cleared or removed from the blocked drainages by the State agencies. This underscores the need for the Ministry of Environment to play mainly the role of supervision and general policy formulation while the environmental protection and waste management board or agency should implement this policy and guidelines so as to reduce areas of conflict and duplication between them.

From the foregoing, proposed legislative reforms, it is hoped that the state will no longer play the sole role of managing solid waste, for example, constructing drainages in roads, removing blocked drainage and disposal of such solid waste, while the citizens merely look on and/or are charged environmental levies. It is also noted that states no longer have the fund with which to provide free social services partly due to mismanagement and corruption or dwindling economic fortunes, hence it is high time the State and its citizens partnered with each other to address the challenge of solid waste across the states and FCT in Nigeria. Nigeria’s current population of 182 (www.population.gov.ng) million compared to Sweden’s51 of 9,889.592 million, with her people huge consumption of packaged and processed products and imported electrical electronic equipment such as fairly used cars, old and new radio and television sets, electrical generators, photocopying machines, etc., with attendant end of life environmental implications, make the country more than a business destination in terms of waste management either through foreign direct investment (FDI) or foreign portfolio investment (FPI). For example, Sweden which is thickly forested with population similar to that of Lagos State in Nigeria52 has identified the need to embark on waste disposal through incineration of domestic waste and utilising the energy therein as source of heat for private and public usages. (www/informationhoad.com/Nigeria-states) However, when the global concerns against human activities that impinge on the global atmosphere with attendant climate change, it shifted focus to waste disposal and management method of recycling of all streams of wastes through public private partnership as well as the involvement of the citizenry as critical and ultimate beneficiaries of a clean environment.53

50 Ibid, S. 162(6) and 4th Schedule to the Constitution Cap C23 LFN 2004, S. 2(e – d).
53 Ibid.
Today, 99% of domestic waste in Sweden is recycled while the remaining 1% is composted. Also, Sweden authorities now import waste well over 700,000 tonnes from other countries of the world. The country has plants for all streams of waste and this has created employment opportunities for the Swedes and indeed, foreigners. Therefore, states in Nigeria stand to benefit from investment in waste management based on her huge population, through deliberate budgetary provisions and the consequent engagement of the youths in gainful means of livelihood with a view to stemming the current high rate of graduate unemployment with attendant youth restiveness, kidnappings and militancy in the North-East of Nigeria. Besides, when the prevalence of waste is checkmated, the environment in which business of all classes is undertaken will be green, clean and friendly.

The basic challenge of solid waste management in Nigeria, however, has to do with the waste management governance as it affects or relates to inter-governmental relations among the three tiers of government in Nigeria. For example, the National Environmental Standards Regulations and Enforcement Agency (NESREA) established by the Federal Government through an Act of the National Assembly, has under its statutory functions in the Act made 33 National Environmental Regulations and one of which is to regulate waste disposal across the country. Also, the Constitution C23 LFN 2004, 4th schedule S. 1 vests waste collection and disposal in the cities in the 774 Local Governments in Nigeria. Curiously too, the State Governments across the 36 states in Nigeria under their respective environmental protection and management laws made pursuant to NESREA’s Act – which encourages the States to make such laws in line with this Act, wherein such enacted States’ environmental laws have provisions on waste management assigned to State Governmental Protection Agencies and Ministry of Environment. With this development, solid waste management and the necessary fund with which to tackle this public health menace have become a soar problem in Nigeria. The situation presently is that the Local Governments do not even have the financial wherewithal to handle solid waste management, for example. This is so because the revenue accruing to them is usually channelled through the “State Local Government Joint Account” provided in S. 162 of the Constitution (supra) and the Governors of States in Nigeria have waylaid such fund to the detriment of the Local Council. The Local Councils are therefore helpless because it is the Governors who are constitutionally expected to handle the election of their officers into various offices. Therefore, there is a need to take advantage of the ongoing constitutional review by the National Assembly to streamline such a role as it affects waste management in the country in order to remove the current conflicts and thereby create a climate conducive for investment in waste in Nigeria.

Conclusion
There are evidently intractable solid waste management challenges across the States and FCT in Nigeria, with high health, economic and social implications. This situation has remained damning in spite of the prevalence of various efforts and laws on environmental protection to tackle this menace. This calls for renewed effort by the governments at Federal, State and Local levels in Nigeria, whose primary responsibility is the maintenance of security and welfare of the people and ensuring also the participation by all people in their government to carry out reforms in the existing environmental laws on waste management. This is with a view to creating a new culture of shared environmental protection responsibility between the

54 Ibid.
State and the people in solid waste management under a state, private waste managers and citizens’ arrangement, which could attract a sustained local and foreign investment intergraded solid waste market in Nigeria.

**Recommendations**

The recommendations will focus essentially on the following critical areas:

a. Solid waste generation, collection and recycling including provision of dumpsites for certain wastes.

b. Imposition of special environmental protection levy and fines on individuals and body corporate for failure to clear blocked drainages in front of private property with an order of court.

c. Establishment of a joint state local councils and village heads environmental monitoring committee.

d. Amendment of traditional rulers’ law to vest in the traditional rulers in council the functions of ensuring environmental protection among their subjects in each village.

e. The evacuation of solid waste removed from the drainage regularly by the State Environmental Protection and Waste Management Board or Agency as the case may be.

**References**


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