SOLID WASTE MANAGEMENT THROUGH PUBLIC-PRIVATE PARTNERSHIP FRAMEWORK: PANACEA TO ENVIRONMENTAL NUISANCE IN NIGERIA?

By

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Abstract

Waste generation, especially of the solid type, is a global phenomenon which varies only in the extent and volume driven by the production activity embarked upon by a producer-nation and the population resident within its borders. This article examined the current infrastructure available in Nigeria for waste management and the adequacy or otherwise of the infrastructure in comparison with global best practices. This article does so against the background of the different options that are now available to the country especially through the decentralisation policy adopted as economic template for the country. The main focus of the paper is that if development must necessarily be made sustainable in order to be beneficial to all stakeholders, then a robust framework for the management of waste – generated as a by-product of development – must be established. This has made the establishment of a framework imperative, to accommodate a sustainable waste management culture which ensures that solid waste does not constitute a nuisance in Nigeria. The paper considers some sustainable waste disposal methods which a robust synergy of public-private partnership will enthrone in order to stem current harmful culture of solid waste disposal.

Introduction

The word 'waste' is defined in the Longmans Contemporary English Dictionary as "unwanted materials or substances that are left after you have used something". In other words, waste is the residue that remains after the substance of a thing might have been consumed. When used in this sense, waste constitutes a necessary consequence of 'development' as demonstrated in manufacturing processes. Development is a necessity in every society and is pursued with consummate passion and practiced zeal since the health, nutrition and general well-being of any society depend upon the integrity and productivity of the environment and resources.

Since development (productivity and consumption) and waste generation are intricately linked, it follows therefore that if development must necessarily be made sustainable in order to be beneficial to all stakeholders, then a robust framework for the management of waste – generated as a by-product of development – must be established. Generating waste, especially of the solid type is a global phenomenon, necessitating the enthronement of a waste management framework which ensures that solid waste does not constitute a nuisance in a geographical location.

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In the case of Nigeria, a nation-state with about 200 million inhabitants, the huge complements of intimidating government structure and a certified status as a consumer nation has resulted made the prospects of solid waste generation in the country both huge and phenomenal. This has made the establishment of a framework imperative, to accommodate a sustainable waste management culture. Relying on desk review of available literature on the subject of waste and content analysis of internet resources, this paper will embark on the assessment of the current framework for solid waste management in Nigeria by focusing on the activities of the Abuja Environmental Protection Board – AEPB - and the Lagos Waste Management Authority –LAWMA - as the established template for solid waste management in the country.

The adequacy of the framework in comparison with global best practices, innovative approaches and international principles will also be considered. In the final analysis, the paper considers the framework of the public-private partnership option for stemming the tide of harmful solid waste disposal culture which obtains currently and suggests some sustainable waste disposal methods which a robust synergy of public-private partnership will enthrone.

Solid waste management constitutes a huge development problem to which global attention have been directed for its alleviation. Collection, transportation, treatment, and disposal of solid wastes, particularly wastes generated in medium and large urban centres, have become a relatively difficult problem to solve for those responsible for their management. The problem is even more acute in economically developing countries, where financial, human, and other critical resources are generally scarce.[2]

Municipal solid waste (MSW) is a term usually applied to a heterogeneous collection of wastes produced in urban areas, the nature of which varies from region to region. The characteristics and quantity of the solid waste generated in a region is not only a function of the living standard and lifestyles of the region's inhabitants, but also of the abundance and type of the region's natural resources.[3]

Urban wastes can be subdivided into two major components, organic and inorganic. The primary difference between wastes generated in developing nations and those generated in industrialised countries is the higher organic content characteristic of the former. The extent of the difference is relative to the quantity and composition of municipal solid wastes generated in several countries.

Since industrial development (productivity and consumption) and waste generation are intricately linked, it follows therefore that if development must be made sustainable for the benefit of all stakeholders, the imperatives of a robust framework for management of wastes – generated as a by-product of development, must be established.

In an attempt to accelerate the pace of its industrial development, an economically developing nation may fail to pay adequate attention to solid waste management. Such a

[2] United Nations Environment Programme (2005), Solid Waste Management (Volume 1), Preface, ISBN: 92-807-2676-5.
[3]Id. p. 1.

failure incurs dire consequences at a later time in the form of resources needlessly lost to a staggering adverse impact on the environment and on the public health and safety.

The penalty is neither avoided nor lessened by a resolve to do something about the waste at a later time, when the country may be in a better position to take appropriate measures. This is true because the rate of waste generation increases in direct proportion to that of a nation's advancement in development. Nor is the penalty lessened by the faulty rationalisation that advances in developmental status have higher priority than maintenance of a liveable environment.The greater the degradation of the environment, the greater is the effort required to restore its good quality. In summary, the efforts to preserve or enhance environmental quality should at least be commensurate with that afforded to the attainment of advance in development.[4] It is no less important for a consumer nation, to pay adequate attention to solid waste management.

In order to achieve ecological integrity – which constitutes one of the 'independent principles for a sustainable way of life as a common standard by which the conduct of individuals, organisations, businesses, governments, and traditional institutions is to be guided and assessed – mankind must adopt patterns of production, consumption, and reproduction that safeguard Earth's regenerative capacities, human rights, and community well-being. One sure way recommended for achieving this, is to: reduce, reuse and recycle the materials used in production and consumption systems, and ensure that residual waste can be assimilated by ecological systems.

Activities that accompany economic development are necessarily waste generating. It is therefore safe to assert that generation of waste is a sine qua non to development. If therefore the issue of development has received global attention, no less consideration should be directed at the issue of (solid) waste management.[5]

The 1990s started to change the way we looked at business and development. The Rio Earth Summit in 1992 helped to promote the concept of 'sustainable development' where economic progress should not come at the cost of using up irreplaceable natural resources and polluting the planet. The past decade has seen fundamental changes in the way we work with the private sector.[6] However, efforts to achieve this have been tasking especially in the area of waste management.

The desperation of avoiding the deleterious consequences of a non-existent waste disposal regime, has resulted in some nations having to dump their solid wastes – especially the toxic ones – on other unsuspecting nations.[7]

Solid Waste Management Framework in Nigeria

[4]See note 1 supra at pp. 2-3.
[5]The Earth Charter, Earth, Our Home, Ecological Integrity principle no. 7. (www.EarthCharter.org).
[6]*DFID and Corporate Social Responsibility: An Issues Paper*. Produced for DFID by wave.coop. ISBN 1 86192 565 4.
[7]The toxic waste dump at Koko, a port city in Nigeria by some Nigerians and their Italian business partners circa1988 is a case in point. See further, Okorodudu-Fubara, M.T. (1998), *Law of Environmental Protection: Materials and Text*, Caltop Publications Limited, Ibadan, p. 845.

The current structure of solid waste management in Nigeria will be assessed through the prisms of two different agencies in charge of solid waste management in Nigeria. The two agencies represent the administrative and legal regimes of waste management shaped after federalism principles system of government in Nigeria.

Waste Management in the Federal Capital Territory - AEPB

The AEPB is the Abuja Environmental Protection Board, the agency responsible for solid waste management in the Federal Capital Territory – FCT- and the six Area Councils in Abuja. In one of its websites, it declares its mission to be 'to ensure safe and clean Abuja city', while its vision is 'to take care of the environment, manage it and make the city beautiful and clean'.[8] It superintends waste collection and disposal, landfill development, monitoring of cleaning contractors among other functions. It has seven departments among which is department of solid waste management. The extent of management of solid waste it carries out can be evaluated through the operations of this department particularly in the areas of waste collection and disposal and landfills development which still leaves much room for improvement that can be filled by embracing PPP framework.

Lagos Waste Management Authority - LAWMA

There is a waste management authority in Lagos State, Nigeria, whose mission[9] and vision statements suggest it appreciates what is and is ready to deliver on what constitutes waste management, but it remains to be seen how well it has internalised these statements. The body has put in place some landfills (dump sites),[10] sited in various locations in Lagos, but this has not resulted in an 'unprecedented, efficient waste management services to all…' as contained in the Authority's mission statement[11].

The Authority's understanding of 'ensuring effective partnership with the private sector and other stakeholders in waste management' is exemplified by the licencing of a number of private refuse collectors who traverse the city to pick up solid waste in bags and refuse bins for 'dumping' at the designated sites. At the sites, the traditional incineration

[8] www.abujaenvironmentalprotectionboard.gnbo.com.ng [accessed on 13 Mar. 15]

[9] LAWMA's mission is to provide professional, efficient and sustainable waste management and disposal services to the generality of 'Lagosians', corporate bodies and Governments (Local and State) in Lagos State. Part of its vision *inter alia* is: 'to provide unprecedented, efficient waste management services to all its domestic and industrial/commercial clients, government inclusive; 'to ensure adequate provision of waste receptacles as alternative to indiscriminate waste dumping; and, 'to ensure effective partnership with the private sector and other stakeholders in waste management'. www.lagosstate.gov.ng/entities.php?k=166 [accessed on 13 March 2015].

[10] There are 3 (three) major landfill/dumpsites in Lagos at Olushosun, AbuleEgba and Solous. There are other satellite dump sites at Owutu (Ikorodu), Sangotedo (Eti-Osa) and Temu (Epe). These sites serve as back-ups for the other three major land fill sites. They are temporary sites and receive about 1,864.29 m^3, per day.

[11] Mission statement number 1. See footnote 8 above. www.lagosstate.gov.ng/entities.php?k=166 [accessed on 13 March 2015].

method is applied to the waste, regardless of and without understanding the characteristics of waste generated.[12]

Whither the Local Governments in Management of Solid Wastes?

Local governments in Nigeria are creations of statutes, hence, they must act within the ambits of the laws that establish them.[13] Even though they are created by statutes, yet, these bodies corporate owe their very existence to the Nigerian Constitution[14] which makes provisions - in the imperative sense – for their presence. According to the Constitution

> The system of local government by democratically elected local government councils is under this Constitution guaranteed, and accordingly, the Government of every State, shall, subject to section 8 of this Constitution, ensure their existence under a law which provides for the establishment, structure, composition, finance and functions of the councils.[15]

Even though, the functions of the councils so created under the respective states laws is one of the matters to be provided for by such states laws, yet the Constitution has also made provisions for certain fundamental functions of the councils, upon which the states laws can build. These functions which are about fifteen in number and are contained under Schedule IV to the Constitution have been further compressed into three and categorised by a learned jurist as follows:

a. Protective functions like sanitary inspections, provisions of public conveniences, sewage, refuse disposal, control of vermin, slaughter houses and so on;
b. Social functions: the building of cemeteries, burial grounds, provisions of roads, lighting and drainages, control of beggars, markets and motor parks and so on; and
c. Educational functions. Under this category may be mentioned nursery, primary and adult education, information and public enlightenments, provision of public libraries and reading rooms and so on.[16]

That the issue of waste disposal is a key function of local governments has received judicial imprimatur in the case of *Yinka v Ojo Local Government*[17]where the court opined as follows:

Efforts have been made to underscore the functions of the local governments in this paper especially as they relate to solid waste management in order to expose the usurpation of

[12]An important element in improving waste management systems is the need to attune chosen technologies to the character of the waste that is generated in a particular location. If wastes are wet and dense, as they are in most developing countries, buying compactor trucks will often be a waste of money. If wastes have low calorific value, it will not be possible to incinerate them without using supplementary fuel. If considerable amount of toxic waste have entered the general municipal solid waste (MSW) stream, leachate from dumps will be particularly dangerous. On the other hand, if a portion of the waste stream consists of organics or can be easily separated into organics and non-organics, composting may become a viable waste management strategy. UNEP, Solid Waste Management (Vol. 1) (2005), *op. cit.* p. 15

[13] A. T. Oyewo, Legal Anatomy of Nigerian Local Government Law and Chieftaincy Matters, 2012 Jator Publishing Company, Ibadan, p.1.

[14]Constitution of the Federal Republic of Nigeria, 1999.

[15]See Section 7 (1).

[16]A. T. Oyewo op. cit. pp. 53-54.

[17]2004 FWLR Part 194, p. 439.

these functions by virtually all the state governments in Nigeria. This arm-twisting tactic employed by the state governments in their relationship with the local government is due, as posited by a learned author, mainly to the fact that some of these functions are 'revenue yielding, like markets, motor parks and so on with the resultant end that such local governments become usually unproductive and impotent.'[18]

So, in the scheme of things, especially in the area of solid waste management in Nigeria, the state governments have reduced the local governments to merely playing hosts to the many dumpsites created for the dumping of the solid wastes, without any meaningful role played by the local governments in their management.

Integrated Waste Management – IWM - Model

Suggesting a global model for solid waste management, the UNEP, recommends the Integrated Waste Management - IWM - approach. This is a frame of reference for designing and implementing new waste management systems and for analysing and optimising existing systems. IWM is based on the concept that all aspects of a waste management system (technical and non-technical) should be analysed together since they are interrelated and developments in one area frequently affect practices or activities in another area.

To this end, the integrated approach constitutes an element of sound practice for its complementary blend with other aspects of waste system. It allows for economies of scale for equipment or management infrastructure which is usually possible only when all of the waste in a region is managed as part of a single system, while further allowing for participation of public, private, and informal sector participants in roles appropriate for each.[19]

Other Solid Waste Management Guiding Concepts

There are a variety of waste management guiding philosophies. These key concepts help to frame the overall guiding priorities for a waste management system. There are similarities and overlap between these different concepts, and each has their strengths and weaknesses. The suitability of any concept must be assessed and determined by the organisation.[20]

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[18]Ibid.

[19]UNEP, Solid Waste Management (Vol. 1) (2005), *op. cit.* pp. 7-8

[20]Gary Davidson and Rochelle Owen, *Sustainable Waste Management Practices*, Dalhousie University Officeof Sustainability, p. 8. **The Three and Four R's;** the three R's are commonly used terms in waste management, they stand for "reduce, reuse, and recycle". As waste generation rates have risen, processes cost increased, and available landfill space decreased, the three R's have become a central tenet in sustainable waste management efforts. Other R's have been added to the three R's including concepts such as Rebuy and Rethink. The threeor four R concept is to be implemented in a hierarchical fashion. **Zero Waste;** a philosophical approach towaste management which emphasises waste prevention through planning, design and restructuring productionand distribution systems rather than simply managing waste. Zero waste is an ideal end goal that is strived foras opposed to a hard target to be reached. **Cradle to Cradle (close loop system);** a strategy that focuses onimproving recyclability and reusability of materials so that waste products can become the raw materials used to make new products. **Eco-efficiency;** an approach that focuses on achieving more with less. Eco-efficiency a broad discipline which can be used in conjunction with a variety of other established strategies to reduce the consumption of resources, minimise pollution and improve environmental performance. **Industrial ecology;** an

Public-Private Partnerships (PPPs)

What are they? According to the World Bank, there is no widely accepted definition of PPPs. Usually medium to long-term arrangements between public and private sectors whereby some of the service obligations of the public sector are provided by the private sector, with clear agreement on shared objectives for delivery of public infrastructure.[21]

PPPs typically do not include service contracts or turnkey construction contracts, which are categorised as public procurement projects or the privatisation of utilities where there is a limited ongoing role for the public sector. An increasing number of countries are enshrining a definition of PPP in their laws, each tailoring their definition to their institutional and legal peculiarities.[22]

For the sustainable solid waste management framework in the country, a sharing of responsibilities between the Government and the business community is necessary. The private sector will need to be engaged proactively. If both parties can successfully engage in a cooperative manner, things are bound to change. Globally, businesses re changing their directions. In today's world, the Government is not seen as a regulator but a facilitator only, while the corporate houses are not judged as money makers and employment generators only.[23]

The Private Sector

The private sector is an integral part of the PPP, but it is sometimes seen as the enemy of the poor. However, it plays an important role in the economic growth that is essential to reducing world poverty. As well as driving economic growth, the private sector can have a direct effect on poverty through its own policies and practices. More and more businesses and governments recognise its critical role in international development.[24]

International Guidelines on PPPs

The United Nations Commission on International Trade Law (UNCITRAL) has published Legislative Guide on Privately Funded Infrastructure Projects in 2000. The purpose

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approach that focuses on improving the economic and environmental performance of industrial firms through re-designing, integrating and adapting technology and processes. – Dalhousie University Sustainable Waste Management Practices Guide.
www.dal.ca/content/dam/dalhousie/pdf/sustainability/NSICIWasteManagementGuideFinal(897).pdf.

[21]www.ppp.worldbank.org/public-private-partnership/overview/what-are-public-private-partnerships [accessed on 12 March 2015].

[22]www.ppp/legislation-regulationlaws/ppp-and-concession-laws [accessed on 12 March 2015]. A government may decide to enact a PPP law or a concession law for number of reasons, such as to give priority to a process of developing, pricing and reviewing PPP projects that will take priority over sector laws, or to establish a clear institutional framework for developing pricing and implementing PPPs.

[23]*Disclosure of the Impact of Corporations on Society – Current Trends and Issue;* UNCTAD/ITE/TEB/2003/7. UNITED NATIONS PUBLICATION Sales NO. E.O4.II.D.18. ISBN 92-1-112625-8.

[24]*DFID and Corporate Social Responsibility: An Issues Paper, op. cit.,* Note 5 above.

of the Guide is to assist in the establishment of a legal framework favourable to private investments in public infrastructure. The advice provided in the Guide aims at achieving a balance between the desire to facilitate and encourage private participation in infrastructure projects on the one hand and various public interest concerns of the host country on the other.

The Guide sets out suggested legislative language in its Model Legislative Provisionson Privately Financed Infrastructure Projects of 2003. There is also the Organisation for Economic Cooperation and Development (OECD) Principles for Public Governance of Public-Private-Partnerships. Through the principles, the OECD provide concrete guidance to policy makers on how to make sure that the PPP represent value for money for the public sector.[25]

The 'Nuisance' In Solid Waste Mis-Management

The term 'nuisance' as a legal expression, primarily connotes a tort the function of which is to protect those legally entitled to occupy land from interference inhibiting them from making full use of their land for all normal purposes. In addition to its primary usage, commonly known as private nuisance, the term is also used to denote the two related concepts of 'public' and 'statutory' nuisance.[26]

In the context of this paper, a mishandling of solid waste management constitute both a public as well as statutory nuisance in Nigeria. In Nigeria, LAWMA has specified under its service provision and delivery standards to embark upon waste collection and reach a standard where 'all highways are cleared of refuse by 8am daily.' This however still remain daunting and unachievable at present thereby compounding public nuisance situation in Nigeria whereby solid waste interfere with the safety and convenience of the public in the context of the use of the highway.

Conclusion

In consonance with global best practices, Nigeria should be pushing for the enthronement of a sound Solid Waste Management hierarchy framework. The first principles towards achieving this is the establishment of a public-private-partnership legal framework which allows for participation of the private sector in waste management at a level that will secure positive impact for Nigeria in the area of solid waste management.

A robust regime of solid wastes management hierarchy will seek to prevent the production of waste or reduce the amount generated; help achieve financing for waste management through construction of suitable technologies and leveraging on other important

[25]Some 57 countries have enacted the PPP/Concession laws in their various countries. Nigeria is yet to enact thelaws. Some of Nigeria's neighbours (in West Africa sub-region) who have enacted the laws include; Benin,Ghana, Senegal and Mauritania. And some of Nigeria's African neighbours that have enacted the laws include;Angola, Malawi, Tanzania, Cameroon, Egypt, Kenya, Madagascar, Mozambique, South Africa, Tunisia and Zambia. www.ppp/legislation-regulationlaws/ppp-and-concession-laws [accessed on 12 March 2015].

[26]Richard Buckley, *Nuisance*, (2008) 'The New Oxford Companion to Law', P. Cane and J. Conaghan (eds.),Oxford University Press, New York, p.841.

waste management strategies; reduce the toxicity or negative impact of the waste that is generated; reuse in their current forms, the materials recovered from the waste stream; recycle, compost, or recover materials for use as direct or indirect inputs to new products; recover energy by incineration, anaerobic digestion, or similar processes; reduce the volume of waste prior to disposal and dispose of residual solid waste in an environmentally sound manner, generally in landfills.

This approach makes waste management practices as environmentally sound as possible.[27] Because of the financial cost outlay for achieving best practices in solid waste management, it will make economic sense to attract the participation of the private sector through the public-private partnership initiative in establishing a framework for solid waste management and thereby checkmate the binge of environmental nuisance in the country.

[27]United Nations Environment Programme (2005), *op. cit.* pp. 9. The waste management hierarchy has beenadapted in various forms by most industrialised countries. Its principal elements are also included ininternational conventions and protocols, particularly those dealing with management of toxic or hazardous wastes, and in regional attempts to develop a coordinated policy on the reuse of various by-products of waste management processes.