

RECYCLING OF SOLID WASTE MATERIALS AND THE POLLUTER-PAY PRINCIPLE IN ENVIRONMENTAL PROTECTION IN NIGERIA: A LEGAL EVALUATION*

Abstract

Indiscriminate solid waste disposal accounts for one of the greatest losses plaguing the ecosystem. These incessant refuse and solid material dumping has made Nigeria unsafe to live in terms of clean environment. Major cities like Lagos and Aba are constant death traps and this littering of waste has aggravated flooding and erosion now than in previous decades. While a school of thought argues that the depth of environmental degradation in the country is a result of over-population, another school of thought blames it on the poor social orientation of the people. Of the thirty six States in the country, only Akwa Ibom, Cross River, Ebonyi, and some parts of the FCT are adjudged average on ratings of clean States in the country. This situation is alarming, and because there is the need to replenish lost resources from pollution and deter future environmental pollution, Nigeria has attempted to inculcate the Polluter-Pays Principle in determining who pays for the use and misuse of the environment. This research aimed at appraising the benefits and sentiments of recycling solid waste materials in Nigeria while particularly identifying the loopholes in the Polluter-Pays Principle and how it can be remedied. The research methodology employed in this work is mixed method combining the doctrinal and empirical research methodologies. In the course of this research, the writer made use of sources like the internet, journals, articles, textbooks, and case laws. The writer also made use of analytical, comparative methods in arriving at meaningful contributions in this area of law. In this work, the author observes that by holding a polluter responsible for injuries from pollution caused by him he would be very careful not to pollute the environment.

Keywords: Solid Waste Recycling, Environmental Pollution and Protection, Polluter-Pay Principle, Legal Evaluation

1. Introduction

The history of environmental law regulation and protection in Nigeria dates back to the Koko Nana Toxic waste dumping in Delta State in the year 1988. Prior to the incident, there were barely any serious environmental laws in Nigeria and Africa. Koko, being a small community in the South West portion of Delta State (formerly part of Bendel State), Nigeria until the 1988 toxic waste dump was virtually unknown to the majority of Nigerians and to the world. Though it contains a sea port, it was probably the least utilized sea port in the country. The community's isolation, backwardness, and widespread corruption in the country, as well as institutional inefficiency made it possible for an Italian, Gianfranco Raffaelli, who had lived in Nigeria for twenty years, claiming to be working on behalf of a Nigerian business outfit, The Irupeken Construction Company (ICC), to organize the importation of over 1000 crates and sacks containing over 10,000 tons of toxic wastes into Nigeria between 1987 and 1988.¹ Today, it has become obvious that major cities like Aba, Onitsha and some parts of Lagos have become replete of environmental disorderliness. Hence, it is timely to undergo this study.

2. Meaning of Environmental Pollution

Environmental pollution is when unwanted and harmful materials like dirty water, dustbins, oil spillage, and harmful factors caused by man and organisms makes the habitable atmosphere unsuitable for use and living in. Environmental pollution is a significant environmental problem affecting organisms with severe consequences². The major forms of environmental pollution we know are air pollution, water pollution, and land pollution. While most of these significant causes of pollution range from human activities, pollution can be largely curtailed by the presence of vegetation in our environment. The use of urban roadside trees for biomonitoring of atmospheric trace elements (ATEs) is becoming more popular and has attracted considerable interest in recent years; as having the key advantages of trees helps in monitoring and checkmating atmospheric pollution.³ Environmental pollution incidents culminate from certain factors which influence their predominance in that geographical area when compared to other locations of the world. For example, places that are surrounded by industries and gas flaring practices will have more air pollution crises than organic oriented societies. Again, there is also the unarguable influence of population density affecting the pollution of the environment. Arguably, more people fuel pollution. While the subject of environmental pollution has been entrenched in academic curriculum in Nigeria at the primary and secondary schools, the poor enforcement mechanisms and structures have watered down the Government's efforts to merely look like an academic exercise. Generally, we can consider pollution as the introduction of elements into the natural environment that causes adverse changes in the air, water, or soil that may be harmful for life. Pollution regarding its origin can be divided into natural or man-induced pollution activities⁴. The crux on the legal appraisal of the issues associated with the recycling of solid waste materials in Nigeria is more centred on addressing human-induced factors that have polluted the environment and the challenges in sufficiently employing solid waste recycling practices and systems to mitigate the impacts of solid waste environmental pollution. In exploring measures to mitigate the impact of environmental pollution in the country, Nigeria partly adopts the Polluter-Pays Principle in determining who pays for the loss of the environment.

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²J O Ihonvbere, 'The State and Environmental Degradation in Nigeria: A Study of the 1988 Toxic Waste Dump in Koko.' *Journal of Environmental Systems* 23.3 (1994): 207-227. Web. Available at https://www.academia.edu/84298700/The_State_and_Environmental_Degradation_in_Nigeria_A_Study_of_the_1988_Toxic_Waste_Dump_in_Koko last accessed on 3rd August, 2023.

³C, Nivedita. 'Pollution Biomarkers in Environmental Biomonitoring: An Insight into Air Pollution.' *New Paradigms in Environmental Biomonitoring Using Plants*, 2022, pp. 165-180, <https://doi.org/10.1016/B978-0-12-824351-0.00009-2>. Accessed 6 Jul. 2023.

⁴B Hamza, 'Urban Roadside Trees as Eco-Sustainable Filters of Atmospheric Pollution: A Review of Recent Evidence from Atmospheric Trace Elements Deposition.' *New Paradigms in Environmental Biomonitoring Using Plants*, 2022, pp. 73-94, <https://doi.org/10.1016/B978-0-12-824351-0.00004-3>. Accessed 6 Jul. 2023.

⁵A Udias, 'Man and the Environment: Population, Energy Consumption and Pollution' *Academia*. > available at https://www.academia.edu/31628231/Man_and_the_Environment_Population_Energy_Consumption_and_Pollution Accessed on the 13th November, 2023

3. The Polluter-Pay Principle

Pollution of the environment comes with consequential effects such that sanctions and penalties are payable to deter more pollution and restore the environment to its former conditions. The pertinent question to ask in the event of a pollution of the environment will be 'who should be liable?' Common sense, standard legal doctrine, and notions of economic efficiency agree that liabilities should in general be assigned to the polluters; that is, the polluter should pay. This informs the environmental impact assessment principle known as the 'Polluter Pays Principle' otherwise called the 'extended producer responsibility' (EPR)⁵. However, while sanctions and penalties are important to deter environmental polluters, this work finds that it should operate side-by-side profitable environmental recovery goals like recycling. The Polluter-Pays Principle (PPP) was adopted by the OECD in 1972 as an economic principle for allocating the costs of pollution control. The polluter-pays principle is an economic rule of cost allocation whose source lies precisely in the theory of externalities, requiring the polluter to take responsibility for the external costs arising from his pollution.⁶

The Polluter-Pay Principle means that the polluter should bear the 'costs of pollution prevention and control measures', the latter being 'measures decided by public authorities to ensure that the environment is in an acceptable state'⁷. In other words the polluter has to bear the cost of steps that he is legally bound to take to protect the environment, such as measures to reduce the pollutant emissions and measures to avoid pollution by collective treatment and curtail of the effluent. The essential ingredient of this principle as adopted by the OECD is that the specific polluter of the environment has to bear all the costs of preventing and controlling any pollution that he originates. It therefore becomes apposite that a polluter who failed to take the measures decided by the authorities to ensure that the environment is in an acceptable state would be liable and would have to pay compensation to victims⁸. The polluter-pay principle advocates for the internalisation of the external costs by which the polluter merges both the external and private costs in order to achieve a true and realistic price for his products and services and this results to proper allocation of costs⁹. Apart from the obligations of complying with the specific measures put out by public administration and paying for administrative costs on pollution control and prevention, there are general obligations for pollution control and prevention the costs of which polluters bear in their respective stages in specific industries such as the oil and gas sector, and a breach of any of these obligations gives rise to the polluter paying compensation to the victim¹⁰.

However, when the polluter's wealth is insufficient to pay all damages, liability is often extended beyond the direct polluters to more passive parties who merely contract or transact with the polluter¹¹. This relatively brings about the User Pay Principle which centres on the idea that the user of a public facility, or consumer of a public good, pays for the environmental good or service or the damages which may arise from that use¹²; and further advocates that all costs associated with the use of a resource should be included in the prices of the goods and services (including government services) that result from the use¹³. The underlying motivation for extending liability is called 'cost internalisation': extending liability expands the capital available to compensate victims and, by forcing greater joint cost internalisation and monitoring, can be expected to induce more efficient safety investments¹⁴.

What remains unclear about the applicability of the polluter-pays principle is the extent of the pollution control costs which should be paid by the polluter¹⁵. Although it seems clear that the principle includes costs of measures required by public authorities to prevent and control pollution, it is less clear whether the costs of decontamination, clean up and reinstatement would be included. Again, there is the problem of defining the extent of environmental damage as there is no clearly acceptable definition of that subject matter. For example, most environmental laws on abatement in Nigeria focus on removal of the abatement and in the extreme, payment of cost to the environmental body designate, leaving the actual victims of the nuisance without remedy¹⁶. As a result of the existence of these problems, it is advocated that a legislature that wants to address a full spectrum of environmental damage or environmental harm or environmental

⁵Oecd/gd(92)81, 'the polluter-pays principle OECD's Analyses and recommendations' [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAgQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD\(92\)81%26docLanguage%3DEN&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAgQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD(92)81%26docLanguage%3DEN&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449) accessed on 22nd November, 2023

⁶ D S, Nicolas. 'The Polluter-pays Principle.' 2002, <https://doi.org/10.1093/acprof:oso/9780199254743.003.01>. Accessed on 22nd November, 2023.

⁷Oecd/gd(92)81, 'the polluter-pays principle OECD's Analyses and recommendations' [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAgQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD\(92\)81%26docLanguage%3DEN&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAgQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD(92)81%26docLanguage%3DEN&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449) accessed on 22nd November, 2023

⁸ *Ibid*

⁹J Ezeanokwasa, 'An Appraisal of the Conformity of the 2007 Nigerian Minerals and Mining Act to the Polluter-Pays Principle' *African Journals Online* <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiL97mU0tmCAxVsQ0EAHZzuBnQQFnoECBOQAQ&url=https%3A%2F%2Fwww.ajol.info%2Findex.php%2Fnauijil%2Farticle%2Fview%2F156719%2F146326&usg=AOvVaw2ffYkUKRw2FhO2TyESscBU&opi=89978449> accessed on 23rd November, 2023

¹⁰ *Ibid*

¹¹Oecd/gd(92)81, 'the polluter-pays principle OECD's Analyses and recommendations' [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAgQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD\(92\)81%26docLanguage%3DEN&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAgQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD(92)81%26docLanguage%3DEN&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449) accessed on 22nd November, 2023

¹² Queensland Consolidated Acts: Waste Reduction and Recycling Act 2011, Section 11(1)

¹³ OCDE/GD(95)124 'Environmental Principles and Concepts'

Environmental Principles and Concepts Organisation for Economic Co-Operation and Development [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiZjZuGqtmCAxVmWEEAHcz5AnEQFnoECAoQAw&url=https%3A%2F%2Fwww.oecd.org%2Fdocument%2FDOCDE%2FGD\(95\)124%2FFen%2Fpdf&usg=AOvVaw2MJh9MY1tqhdwaAkhUXrBo&opi=89978449](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiZjZuGqtmCAxVmWEEAHcz5AnEQFnoECAoQAw&url=https%3A%2F%2Fwww.oecd.org%2Fdocument%2FDOCDE%2FGD(95)124%2FFen%2Fpdf&usg=AOvVaw2MJh9MY1tqhdwaAkhUXrBo&opi=89978449) accessed on 23rd November, 2023

¹⁴Oecd/gd(92)81, 'the polluter-pays principle OECD's Analyses and recommendations' [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAgQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD\(92\)81%26docLanguage%3DEN&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAgQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD(92)81%26docLanguage%3DEN&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449) accessed on 22nd November, 2023

¹⁵ *Ibid*

¹⁶ Emphasis mine

pollution or environmental adverse effects, must articulate a standard that reflects purely environmental values¹⁷. The Statute must require proof of something more than mere contact between a pollutant and the environment¹⁸. To this end, it is suggested that an alternative approach to focusing on the regulatory standards might be to define 'environmental damage or environmental harm or environmental pollution or environmental adverse effects' in the criminal provision itself¹⁹. It is pertinent to state at this point, that the polluter-pays principle cannot deliver these desired results if the above identified problems challenging it in Nigeria cannot be addressed. There is need for government to invest in creating awareness about environmental pollution and degradation as well as about their deleterious effects particularly on human and animal life²⁰. Efforts must also be made by the Government to identify environmental polluters in different sectors of the economy because unless they are identified, they cannot be made to take responsibility for their environmental injuries²¹. Agencies saddled with the duty of enforcing the polluter-pays principle must be made to be efficient through personnel training and equipping them with the state-of-the-art tools for their job as this would go a long way in instilling in them the spirit of professionalism²². Also, there is the need to ensure that the legislations and other legal instruments enabling the application of the polluter-pays principle must be periodically reviewed in order to bring their provisions in tune with the changing situations relevant to the application of the principle²³. This in reality, will aid the precise assessment of what the polluter is paying for. When the payment system is precise and definite, and polluters are placed with the option of paying for the pollution of the environment with solid waste materials and recycling their solid waste materials, more environmental pollution will be abated.

4. Waste Recycling in Nigeria

As similar to many developing countries around the world, Nigeria seems to see environmental pollution problems as a necessary outcome of population growth. This informs the indifference in individuals and company's direct care of their environment and natural environmental resources. Many municipal areas generate solid waste than they can manage, and this seems to appreciate with the more circulation of money²⁴. For example, the more money an individual has to afford a bottle of coke to complement his lunch, the higher the potential of littering the environment with those waste materials when the right recycling culture is not in place. Traditionally, slums and shanty neighborhoods receive the least attention with regard to waste collection and disposal services and the fact that urban workers who redeem recyclable materials from richer refuse have few or no incentives to service poor suburban settlements culminates to the result that waste are dumped indiscriminately in those settlements²⁵. This situation accounts to why environments in Nigeria like Oshodi, Onitsha and Aba are environmentally polluted than the others. Domestic refuse in Lagos alone estimates an average of 4.5 million tons yearly²⁶.

In a bid to regulate the waste generation in the country, the Federal Government commenced general sanitation exercises in 1985 (which states have now individually adopted) which designated the morning of the last Saturday of every month as an environmental sanitation exercise. Although the initiative was good, the exercise further saw a situation where garbage were dumped at roadsides instead of the trash sites provided by the local authorities. Abatement of nuisance is not a completely effectively method restoratively as industrial actions in Nigeria keep appreciating. It is clear that the usual practice of collective environmental sanitation has not completely helped to improve the environmental health and well-being in Nigeria. Advanced nations have embraced the reuse of solid waste materials. Arguably, the chief factors hampering the gravitation to this trend in Nigeria include residents' indifference to recycling measures and policies, failure to include environmental issues in national policy plans and planning processes, lack of access to recycling facilities, and inefficient legal frameworks that address national issues. The system has potentials on a local level, people who have taken waste picking as a means of livelihood projectively earn a minimal daily income of N750 (a little higher than \$1 low mark prescribed by the millennium development goals on poverty)²⁷

Recycling appears generally to be operating a mixed structure comprising of a formal and an informal system in Nigeria. However, we see the dominance of the informal system because statutory laws and measures for maximizing waste recycling are a mirage.²⁸ More so, because of the paucity of resource recovery programs in the country, residents do not see the need to engage in waste recycling as a means of profit, resulting in high accumulation of waste at thrash sites and even in inappropriate places.²⁹ The results can be more productive with the right government intervention.

¹⁷Oecd/gd(92)81, 'the polluter-pays principle OECD's Analyses and recommendations' [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAGQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD\(92\)81%26docLanguage%3Den&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi9gqO06teCAXWQQUEAHSQXBuQQFnoECAGQAw&url=https%3A%2F%2Fwww.oecd.org%2Fofficialdocuments%2Fpublicdisplaydocumentpdf%2F%3Fcote%3DOCDE%2FGD(92)81%26docLanguage%3Den&usg=AOvVaw0e_UMntYzzj_Yb3gdxX3cv&opi=89978449) accessed on 22nd November, 2023

¹⁸ *Ibid*

¹⁹ *Ibid*

²⁰ J O Ezeanokwasa, 'Polluter-Pays Principle and the Regulation of Environmental Pollution in Nigeria: Major Challenges' *Journal of Law, Policy and Globalization* www.iiste.org ISSN 2224-3240 (Paper) ISSN 2224-3259 Vol.70, 2018 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiti53RrdmCAXXPVKEAHa0wJPsQFnoECBQQAQ&url=https%3A%2F%2Fcore.ac.uk%2Fdownload%2Fpdf%2F234651802.pdf&usg=AOvVaw1cltLx_g5ypKFF8U7N3aig&opi=89978449 accessed on 23rd November, 2023

²¹ *Ibid*

²² *Ibid*

²³ *Ibid*

²⁴ A Anjorin, 'Recycling in Nigeria' *academia*. https://www.academia.edu/22450205/Recycling_in_Nigeria Accessed on 23rd November, 2023

²⁵ *Ibid*

²⁶ *Ibid*

²⁷ S Srinivas, 'in Contents of Tilly and Hanagan (Eds.) *Contention and Trust in Cities and States* (Springer)' (2011) available at https://www.researchgate.net/publication/256086713_Srinivas_2011_in_Contents_of_Tilly_and_Hanagan_Eds_Contention_and_Trust_in_Cities_and_States_Springer/citation/downloadlast < last accessed on 6th July, 2023

²⁸ *Ibid*

²⁹ *ibid*

5. Conclusion and Recommendations

It is common knowledge that Nigeria has not exploited the full benefits of recycling solid waste materials. One of the major setbacks the country has experienced over the years that has hampered the recycling of solid waste materials to alleviate waste pollution is the poor level of education and sensitisation on the topic. There is little sensitisation and awareness on the subject in some parts of the country while some areas have not embraced the possibility of having a waste recycling controlled state. While the overall statistics appears more astonishing now, primarily because of the increase in the activities of industrialisation, the Government can play a major role in establishing a general body at the helm of recycling activities and consolidate the efforts of individuals and non-governmental bodies if recycling is to see the light of the day in Nigeria. While reaffirming the obvious benefits of recycling to the environment, this work acknowledges that it is impracticable to have full and absolute compliance. However, following the recommendations of this study will be a step in the right direction to ensuring Nigeria goes closer to achieving the sustainable development goals on the environment. This study has attempted to identify the issues associated with the recycling of solid waste materials in Nigeria while make a case for the recycling as a restoratively remedial system. The author makes the following recommendations flowing from observations and analysis. The study of environmental behavioural tendencies should be incorporated into high school and tertiary education curriculums. Adequate pricing system should be set up to ascertain definite cost polluters should pay in the event of polluting the environment through their activities. There is need for establishment of a Government Agency to partner the Recyclers Association of Nigeria and relevant non-Governmental organisations in the sensitizing the citizenry on the need to recycle their solid waste. More resources are to be allocated to ensuring gadgets and facilities that aid recycling are made available for public use. Federal and State governments need to foster economic partnerships to create incentives that will encourage recycling of solid waste materials. There is the need to proffer strict building regulations to mandate owners and occupiers of buildings to re-channel and reuse their drainage and debris.