

AN APPRAISAL OF THE IMPACT OF WASTE AND FLOOD ON ENVIRONMENTAL PROTECTION IN NIGERIA *

Abstract

Waste Management is very important to maintain a safe environment. Flood is a natural hazard, is one of the major environmental crisis that have to be contended with globally. "Poor waste management and Impact of flood hazard are interrelated and both are in fact directly linked to each other." This research is aimed at looking at how improper waste management and flood affects our environment. Existing literatures on the subject will be x-rayed and impact of these two related and directly linked concepts on the environment will be highlighted. Suggestion will be made to the effect that proper management of waste will reduce flooding and reduce environmental degradation.

Key words: Waste, Flood, Environment and Environmental Protection.

Introduction

It is an uncontroverted fact that poor waste management worsens the impacts of flood hazard on the environment¹. According to a learned writer,

Poor waste management may elevate the flood hazards in numbers of ways. Improper disposal of

***Prof. C. I. N. EMELIE**, Lecturer, Faculty of Law, Chukwuemeka Odumegwu Ojukwu University, Igbarim, Anambra State, reachmeifeyinwa@yahoo.com.

¹ Tawonga Ng'oma 'how does poor waste management affect the impacts of floods hazard?' Malawi university of Science and Technology, Aug. 2020. www.researchgate.net.accessed

waste along roads could physically block the drainage system, influencing the flood of runoff in the canal system. This directly causes flash floods in urban areas. On the other hand, open dumping of waste into low lands or wetlands could deteriorate the natural flood retention capabilities, leading to flooding events².

Flooding most times also serve as a transportation agent of improper disposed waste. This will lead to blocking of canal which will automatically led to flood hazard. It is a common occurrence in our environment that whenever it rains, people find pressure in disposing their waste into the quarters. This attitude prevent free water circulation, the end product is flooding with it consequent impact on the environment. A great flood can take away lives and properties in an instant. It can change the feature of land areas permanently.

Concepts Analysis

Flood: This is an overflow of water that submerges land that is usually dry. They are the most common and widespread natural severe weather event. According to National Severe Storms Laboratory based in the United State of America, there are five types of floods. Which are River flood, Coastal flood, Storm surge, In-land flooding and Flash flood.³

Waste: Is any substance which is discarded after primary use, or is worthless, defective and of no use. Examples include municipal solid waste (household trash/refuse), hazardous waste, and

² M.W.B.A Lahiru Udayanga. Wayamba university of Srilanka *ibid*.

³ What is flood, www.earth.networks.com. Accessed 28-04-2021.

wastewater (such as sewage, which contains bodily waste (feces and urine) and surface runoff), radioactive waste, and others⁴.

Environment: Is the totality of physical, economic, cultural, aesthetic and social circumstance and factors which surround and affect the desirability and value of property, and which also affect the quality of people's lives.⁵ It is the surrounding or condition within which something or some exists.

Environmental Protection: Is the act of giving maximum protection to the environment for the benefit of both the present and future generation.

Legal Framework on Flood Management in Nigeria

Basically, Nigeria has no principal enactment dealing specifically with flood management; however there is some enactment that touches howbeit in a very little way on flood.

- a. The National Emergency Management Agency /Establishment etc) Act.⁶
- b. The River Basin Development Authorities Act.⁷
- c. National Environmental Standards and Regulation Enforcement Agency (Establishment) Act 2007
- d. National Hydrological Services Agency (Est. Act) NIHSA/2010
- e. Nigerian Meteorological Agency (Est. Act (NIMET Act).⁸
- f. National Environmental Policy 1999.

⁴ Waste. www.dictionary.cambridge.org. Accessed 27/07 2021.

⁵ H.C. Blacks, Black's Law Dictionary, 8th Edition, Bryan A. Garner(ed.) Thomson West Group, America, 1999,479.

⁶ Cap N34 Laws of the Federation of Nigeria 2004

⁷ Cap R9 LFN 2004.

⁸Cap N152 LFN 2004. (NIMET Act}

- g. National Erosion and Flood Control Policy (NEFCP/2005).⁹

The National Emergency Management Agency was established in 1999.

Its mission is to coordinate resources towards efficient and effective disaster prevention, preparedness, mitigation and response in Nigeria. It acts in the Disaster Risk Reduction, search and rescue; policy and strategy. Geographic Information System, Advocacy, Education and others. The functions of the Agency in relation to flood includes:-

- a. Educating and informing the public on disaster prevention and control measures.
- b. Distribute emergency relief materials to victims of natural or other disaster and assist in rehabilitation of the victims where necessary.
- c. Liaise with the united Nations Disaster Reduction Organization or such other International bodies for the reduction of natural and other disasters.¹⁰

Our observation from the above is that the duty of this Agency starts after a disaster had occur. It is essentially that of relief management, after flooding incident. Most times the rescue operation is slow, lacks professional touch, and could result in more damage at the end of the exercise.

⁹F.C. Amadi and P. Azubuike. "An Evaluation of the Legal Framework for the Control of Flood Disaster in Nigeria, SACAHA Journal of Policy and Strategic Studies vol. 7. No. 1 2017, 2032. www.academic.edu.accessed 01-05-2021.

¹⁰Section 6(1) of the Act.

The River Basin Development Authorities Act

This Act established eleven authorities known as the River Basins Development Authorities. They are government agencies involved in the management of water resources for agriculture and other uses. The functions of the Agency that touches on flood is found in S.H (I), to undertake comprehensive development of both surface and underground water resources for multiple, use with particular emphasis on the provision of irrigation infrastructure and the control of floods and erosion and for watershed management.¹¹ It is also to construct, operate and maintain dams, dykes, polders, wells, boreholes, irrigation and drainage system and other works necessary for the achievement of the authority's functions.¹²

These functions as it relates to flood are wonderful, the issue is whether these functions are effectively carried out. The situation on ground seems to point to the fact that these functions are not being performed, hence the havoc caused by flood to the environment.

The National Environmental Standards and Regulation Enforcement Agency (Establishment) Act.

This Act was established in 31st of July, 2007, it repealed the Federal Environmental Protection Agency Act. It has the responsibility for the protection and development of the environment and sustainable development of Nigeria natural resources. Among others, the agency has power to submit for the approval of the minister, proposals for the evolution and review of existing guidelines, regulations and standards in erosion and

¹¹ Section 4 (1) of the Act

¹² S4(I) C1) (b)

flood control, dams and reservoirs, watershed.¹³ The provision of the Act is laudable, all-embracing and progressive, however the impact of this wonderful power of the agency is yet to be felt particularly in the area of flood in the environment.¹⁴

National Hydrological Services Agency Act (AFIHS)

This Agency is a government institution formed under the ministry of water resources. The Agency is established to manage hydrological stations around the country and carry out ground water exploration and monitoring using various scientific techniques to provide hydrological and hydrological data needed for planning, design, execution and management of water resources and allied projects. This Agency from the above provision is to also help in the control of flood and thus safeguard the environment for the country's sustainable development.¹⁵

Nigerian Meteorological Agency

This Agency came into existence in the year 2003; the vision of the Agency is to provide weather, climate and water information and services for sustainable development and safety of lives and property. It is the function of the Agency to update the common Nigeria citizens on weather forecasts and predictions. This goes a long way to aid some decision making, reducing serious cases of accidents due to weather – related mishaps, of which flood is part off. This function is effectively implemented, will reduce the degradation faced by the environment.¹⁶

¹³ Section 8 (e)

¹⁴ C.I.N. Emelie, *Environmental Law and Practice in Nigeria*. Rhyce Kerex publishers, Enugu- Nigeria, 2016, P. 175.

¹⁵ www.nihsa.gov.ng.functions of National Hydrological Services Agency Act. Accessed 11-05-2021.

¹⁶ 'Nigerian Meteorological Agency and Functions' www.proguide.ng.accessed 11-05-2021.

Legal Framework for waste Management

The most important and direct law regulating solid waste in Nigeria is the National **Environmental Protection (Management of Solid and Hazardous Wastes) Regulations of 1991**. This provision regulates the Collection, Treatment and Disposal of Solid and Hazardous Waste from municipal and industrial sources. The regulations which is divided into twelve parts, has under part one, five objectives of solid waste management as follows:

- a. To identify solid, toxic and extremely hazardous wastes dangerous to public health and environment.
- b. To provide for surveillance and monitoring of dangerous and extremely hazardous wastes and substances until they are detoxified and safely disposed of.
- c. To provide guidelines necessary to establish a system proper record keeping, sampling and labeling of dangerous and extremely hazardous wastes.
- d. To establish suitable and provide necessary requirements to facilitate the disposal of hazardous wastes.
- e. To research into possible re-use recycling of hazardous wastes.

Good as these objectives are, the challenge is how to effectively implement, sustain and enforce the propelled provisions of the legislations by the individuals, communities and the government. Looking at the above objectives of the regulations it appears there is a honest quest to address the problem of solid wastes. However from the obvious menace of the inability to address the problem of solid wastes management which is there for all to see, simply points to the facts that the laid down objectives of the regulations are far from being achieved. Apart from non-implementation and non-enforcement of the regulation, achieving the above

objectives of the provision is however bedeviled by many other factors, some of which are:

- a. Non availability of fund to the agency
- b. Inadequate qualified man power
- c. Lack of functional equipment and laboratories
- d. Corruption
- e. Inadequate sanctions

Other available statutory provisions for environmental protection and waste management are:

The Constitution:

under section 20 of the constitution. It provides that states shall protect and improve the environment and safeguard the water, air, land, forest and wild life of Nigeria. As impressive as the objective on the Nigeria environment is, the fact remains that it is not justiciable.¹⁷

The implication of this is that where the government is not forthcoming on the issue of the environment, none of the administrative procedure can be invoked on it to compel the government to do the needful.¹⁸

The National Environmental Standards Regulation Enforcement Agency Act, 2007 (NESREA): The objective of this Act is that the agency is responsible for the protection and

¹⁷ J.O.Akande. "allocation of environmental responsibilities under the Nigeria constitution: institutional challenges and conflicts in environmental law and sustainable development in Nigeria, Nigerian Institute of Advanced legal studies, Lagos & British council,1994,p.35 at 28.

¹⁸ T.Odumosu, op. cit. p..56.

development of the environment, biodiversity, conservation and sustainable development of Nigeria's natural resources in general and environmental technology including coordination and liaise with relevant stakeholders within and outside Nigeria on matters of enforcement of environmental standards, regulations, rules, laws, policies and guidelines.¹⁹ Among the powers of the agency is the power to submit to the minister of Environment proposals for the evolution and review of existing guidelines, regulations and Standards on Environmental other than in the oil and gas sector including; waste management and environmental sanitation.²⁰ No doubt, the objectives are laudable, all embracing, progressive and depicts a nation that is serious and honest in all forms to protect its environment, it is however suggested that the functions should be more direct to the aims and objectives of the Act and made to address the specific target for optimal performance and enforcement.²¹

The Harmful Waste (special criminal provision) Act of 1988.²²

This Act came into existence after the notorious dumping of toxic waste at koko town of delta state in 1988, to prohibit the carrying, depositing and dumping of harmful waste of any kind on any land or in any territorial waters or contiguous zone or exclusive economic zone of Nigeria or Nigeria's inland water ways. The Act stipulates very stringent criminal sanctions for a violation of the prohibition.²³ The person may be sentenced to imprisonment

¹⁹ See section 2 of the Act

²⁰ See section 8(k)(xvii) of the Act

²¹ C.I.N Emelie, *opcit*, p.175, note 15 above

²² Harmful Waste (Special Criminal Provision) Act, Cap H1, Laws of the Federation of Nigeria, 2004.

²³ See section 6 of the Act.

for life and in addition any vehicle or land involved in or connected with the violation is forfeited.²⁴

At the state level, most state government like Lagos and Anambra state established waste management authority.

On the 4th day of June, 2015, Anambra state government established the Anambra State Waste Management authority with its functions among others to collect, remove, process, treat and safely dispose of domestic, hospital, commercial, institutional and industrial waste,²⁵ and carry out any other function that is incidental to proper waste management in the state.²⁶

Apart from Lagos state, who has attacked the problem of solid waste management with the seriousness it deserves, the regulations made by both the federal and some state government, is faced with so many challenges, from the inability of the government to effectively ensure an enforcement process to enable workability of the laws,²⁷ to ill equipped workers, lack of funds among many others.

The strict liability offence nature of the above provisions is commendable; what is more, the exclusion of immunity from prosecution conferred on certain persons by or under the diplomatic Immunities and privileges Act²⁸, expresses the seriousness of the Government of the nation to address the

²⁴ V.O.OO Aigbokhaebo .“Air Quality and health” Environmental Law Research Insitute. Nwesletter, issue 2, March 2009. p. 23.

²⁵ See section 6 (1) (a) of the Law

²⁶ See section 6 (b)(d)(h)(i)(g)(s)(t)(v) and (y) of the Law.

²⁷ V.O.O Aigbokhaevbo, p.23, note 24 above

²⁸ Section 9 of the Act

offences of harmful waste. However, the enforceability of the above provision on Diplomatic Immunity is doubtful, this is premised on the fact that diplomatic immunities is a products of International conventions and treaties (e.g. the Vienna Convention on Diplomatic Relations)²⁹ which by virtue of the provision of section 12(1) of the 1999 Constitution has the force of law in Nigeria.

The above position is strengthened by the position of our court. In the case of **Ishola Noah v. His Excellency, The British High Commission to Nigeria**³⁰ the Supreme Court held that an action commenced against the British High commissioner to Nigeria was incompetent, null and void, by invoking the provisions of section 1 of the Diplomatic Immunities and Privileges Act.

With the constant eye sore created by mountains of solid wastes all over the nook and cranny of the nation, it is doubtful whether the required facilities are in place, and the extent of commitment by the government and stakeholders to actually address the challenging problems of solid waste management.

Impacts of Waste and Flood on our Environment.

Our environment is precious, we must therefore do all we can to preserve it. We must reduce or minimize the negative effects that our action will have in the environment.

Waste poses serious dangers for fauna and floras as chemical substance released from these wastes are health risk to both environment. The high health risk involved in improper waste management calls for significantly lower volume of hand till

²⁹ Of 1961

³⁰ (1980) 8-11 SC 100

materials requires of recyclable materials and the reuse of organic waste³¹. It can also result in air pollution, land pollution and could also cause numerous different health conditions.³²

In the same vain, the impact of flooding on the environment is also serious. For instance, flooding is dirty water that carried water born disease and chemical that can affect the quality of soil in the environment.

Flooding pollute our sources of water thereby resulting in outbreak of diseases and epidemic. Rivers and water bodies near the river are always put the risk of flooding when the river overflows. Animal are displace and most times die during flooding, there is also loss of life and properties. This brings also mass migration and homes are abandoned. The economy is equally as most businesses may stop or operate at a very low ebb³³.

Reduce Waste and Flood Hazards in Our Environment.

Environmental impact of debris and drainage or canals must be considered, especially when it can be potential source of micro plastics through flooding, which constantly harm the marine ecosystem and transporting hazardous substances at the same time. There is need for flood hazard reduction, strategy which solves urban drainage problems by managing waste derived from anthropogenic and natural activities, through administrative services on drainage clearing waste collection and citizen's cooperation to waste disposal.

³¹ www.groupebouffaid.com.accessed 29-06-2021.

³² Impact of waste on the environment www.wikipedia.org.succeeded 29-06-2021.

³³ Waste end flood impact in our environment. *opcit.* Note I.

In view of the above position, some steps are suggested below for reducing waste and flooding hazards in our environment.

- a. Storm water should be used for our lawn and garden: The idea is to allow the storm water from our homes” to spread out and absorb into our lawn before it enters the storm water drainage system³⁴.
- b. Construction of rain garden: This is a low spot in our yard that can hold water. Instead of allowing the water in our rain garden, this can provide colour to our garden round the year. ³⁵
- c. Don’t dump waste: Dumping all waste out a general dump site should be discouraged. Waste should be dump where it belongs. This will help in effective management of specific or particular waste.
- d. Grass clipping should not be shoot into the street side walk. The grace clipping show be thrown into our compound not on the street.
- e. Hazardous waste should be recycle
- f. Illegal dumping should be reported to the appropriate authorities and effective action taken by the authorities to stop such act.³⁶
There is need for environmental education of all citizens
- g. Need to decrease global warming by combating pollution and degradation of the environment.
- h. Has of trees and vegetation exacerbated what damage floods can cause. Trees shrubs and grass help protect areas

³⁴ www.bluespringsgov.com,”Steps to reduce pollution, Erosion, and Flooding. The city of Blue Springs. Accessed 30/06/2021.

³⁵ www.RainGardens.org accessed 30/06/2021.

³⁶ Blue Springs Recycling and Solid Waste Disposal, Community Development Department Missouri, www.Bluesprings.gov.com. Accessed 30/06/2021.

from flood by moving water. People should be encouraged to use vegetation to break the force of moving flood waters.

There is need for environmental education of all citizens. Water ways are clogged with litter, resulting in floods during, raining. Instruct people about proper waste disposal. Keeping proper waste bin can help for a cleaner environment and drainage system.

Finally, water basins should be installed in areas of severe flooding as receptacle for flood water. When flooding basin first, there by giving people ample time to evacuate.

Conclusion

Floods and waste impact in the environment increase the already degraded state of the environment. Waste disposal sites are mostly located in low land areas close to residential areas inducing a long-term risk of potential environmental contamination due to flooding. The flood –prone waste disposal is a major risk to the environment and needs to be given urgent attention. This is because of the imminent risk for human and the environment.