

## INFLUENCE OF WASTE MANAGEMENT ON ENVIRONMENTAL INSECURITY AMONG RESIDENTS IN LAGOS

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### Abstract

*Disposing of wastes in urban cities has been a major health threat in the society, particularly in Ejigbo area of Lagos State. This study therefore examined the influence of waste management on environmental insecurity among sub-urban residents in Ejigbo community, Lagos State. Descriptive survey research design was used for the study. Convenience sampling technique was used to sample 500 respondents. The research instrument was revalidated using cronbach method of reliability for internal consistency and the result yielded 0.71 alpha. Research hypotheses were tested using t-test statistical tool and the result held at 0.05 alpha level. The findings showed significant influence on insufficient funding by government at all levels. This would automatically reduce any inherent health threats arising from the waste disposal in the community ( $t= 3.939, p < 0.05$ ), effective monitoring and control by the agencies involved ( $t= 3.351, p < 0.05$ ) and the level of awareness campaign should be intensified to completely eradicate insecurity of the environment among sub-urban residents in Lagos State, particularly people living in Ejigbo community of Lagos State, Nigeria ( $t= 3.092, p < 0.05$ ). The study concludes and recommends among others; that government should intensify their efforts in the area of awareness campaign; effective monitoring and earmark good budgetary allocation to enhance positive attitude among Lagos residents towards good waste disposal and thereby reducing environmental insecurity in Lagos.*

**Keywords:** Environmental insecurity, Health threat and Residents, Waste disposal

### Introduction

The enjoyment of the highest standard of health is one of the fundamental rights of every individual regardless of age, educational qualification, socio-economic status, religious affiliation, gender differences, race or tribe and the likes. Security of the environment becomes the responsibility of the government at all levels, as well as the individual residents, if we must attain the highest possible state of wellness. World Health Organization (2009) affirmed that, the foundation of health is the belief that all human beings deserve to be healthy without restriction. Security of life and property has been recognized as basic for progress and development of any society.

Tannerfeldt & Perljung (2006) opined that, even though urbanization serves as a driving force for economic growth and development, the resulting effect on human health, livelihood and the environment has become a major concern. Part of the reasons being the challenges of waste disposal that the cities generate, staggering challenges of slum development, environmental degradation, as well as

compromised health standard resulting from exposure to solid wastes dumped very close to human residents. The end of the 1980s saw a radical re-appraisal of our concerns over resource availability and use, the environmental consequences of resource exploitation and the relationship between the environment, poverty and economic change. This re-appraisal has given rise to a new approach to environmental issues which seeks to reconcile human needs and the capacity of the environment to cope with the consequences of economic system. This approach is however, called sustainable development. Agunwanba (2008) said that, sustainable development without jeopardizing future development, means that our efforts to explore and exploit the natural resources is an obvious paradox evident in the need to ensure economic development, while protecting the environment. It is important to note that there must be a balance between levels of development and the stock of natural resources, i.e. development must be at a level that can be sustained without prejudice to the natural environment or future generations.

Adara (2007) affirmed that if there is to be sustainable development in waste management in Nigeria, the availability of land (for landfill), human resources, plant and equipment and other tools including capital must be readily available. He continued that we need to protect future for the next generation by cleaning up our environment of all types of waste, taking into consideration both physical and population development of the state. As such waste management must mean the collection, keeping, treatment and disposal of wastes in a way as to render it harmless to human and animal life, the ecology and the environment generally. Akinloye, Awoyinfa & Adewunmi (2013) quoting Gilberton (2005) reported that today, the environment is being polluted as never before by the accumulation of solid waste, a staggering burden born of influence, nurtured by rising population, fostered by technology. They lamented further that waste management is becoming an alarming problem in many towns of the country.

Waste as the term implies, is any solid, liquid or gaseous substance or material which being a scrap or super flow, refuse or reject, is disposed off or required to be disposed as unwanted. The generation and disposal of waste is an intrinsic part of any developing or industrial society. Waste, both from domestic and commercial sources has grown significantly in Nigeria over the past decade. Every time a householder opens shops, it contributes to the mountain of waste. It is possible to quote figures which show that the production of waste amounts to millions of tons. According to Jimoh (2005) who observed that, the percentage of Nigeria's population living in cities and urban areas has more than doubled in the last 15 years. The cities and urban areas experience continuous growth which contributes to the generation of solid and liquid wastes.

The management of waste is a matter of national and international concern. The volume of waste does not actually constitute the problem but the inability of governments, individuals and waste disposal firms to keep up with the task of managing waste and the environment. Mowoe (2000) affirmatively said that a dirty environment affects the standard of living, aesthetic sensibilities, health of the people and thus the

quality of their lives. Uncontrolled and poorly managed solid wastes diminishes the quality of life in Lagos metropolis. It must be acknowledged that although wastes from homes, factories and institutions make up a small part of the total load of solid wastes generated by Lagos state, they are certainly the most offensive and most dangerous to health when they accumulate near residential points. Several waste management agencies have set up programmes and strategies aimed at creating a positive attitude towards indiscriminate disposal of refuse. Some of these efforts are geared towards effective monitoring and control, awareness campaign, insufficient funding and inadequate facilities and equipment. It was on this premise, that this study, sought to investigate solid wastes as determinants of environmental insecurities among sub-urban residents in Ejigbo Area in Lagos State, Nigeria.

### **Concept of a Healthy Environment**

Environment is the source of reservoir for the agents of disease. This helps in the transmission of agents to the host. Laoye (2006) submitted that the environment may be living or non living and the former may be biological and social. He further stressed that, the environment is divided into physical, biological and social. A healthy environment is a pre-requisite for healthy human and economic development. The possible ways in which environment can condition health of human beings are limitless, food, climate, shelter, clothing, availability of medical care, superstition, religious belief, occupational hazards, accident (Smith, 2006). According to Brooks, (2001) who said that, the provision of healthy environment is a major phase in any community, and it is an evidence of the degree of civilization attained by the country. This could be achieved through the combined efforts of the individual residents and government at all levels.

### **Environment and Security**

Security of the environment has been broadly recognized and appreciated by scholars and citizens as the primary condition for the progress and development of any society. Any local district, state or nation that does not give top priority to the protection of that community would soon sink. Hobbes (2000) posited that, the relationship between environment and security has been under consideration since the 1980s mainly by two groups, that the environmental policy addressing the security implications of environmental change and security, and the security community, looking at new definitions of national security, particularly in the post Cold War era.

The World Commission on Environment and Development clearly linked security with environment in 1987 Brundtland Report. In recent years, environmental security has been understood extensively which includes human, physical, social and economic well being, giving the scope for interpretation. Environmental security is to protect the residents from the short and long terms ravages of nature, man-made threats and deterioration of the natural environment. Amowitz, Reis, Lyons, Vann, Mansaray & Akinsulure, (2007) categorically said, in developing countries, lack of access to clean water resources is one of the greatest environmental threats. Environmental security examines the threat posed by

environmental events and trends to individuals, communities or nations. Coupland (2006) confirmed that the Millennium Project did a global assessment of the definitions of environmental security and created a synthesis. Environmental security can, however, be viewed as the viability for life support with the intent of preventing damages to life and properties, responding to environmentally caused conflicts and act as analytical tool (Health Impact Assessment, HIA) for the promotion of peace between the residents and governments.

### **Factors Associated with Insecurity in a Community**

There are many factors that could be responsible for environmental insecurity, resulting from peoples' cantankerous attitude or their negative health behaviour. These factors are largely to cause damages and even death to the publicans. That is; pollution (Air, Water, Noise), inadequate facilities and equipment, poverty, conflicts evocation, political unrest, cyber fraud, illiteracy among others. Adeleye (2001) identified air pollution which includes odour, smoke, noise, dust as one of the major factors responsible for insecurity in a community. Awofala (2002) said that, waste pollution from disposal site via flooding because of blocked drains and land degradation can carry germs and infect people, thereby causing environmental disaster

### **Waste and Waste Management in Lagos Metropolis**

Ejigbo is one of the urban communities in Lagos. Lagos State is the most economically viable state of the country, which contains the nation's largest urban area with 1,292 square miles (3,345 square km) and probably the most populous city in Nigeria. It is the second fastest growing city in Africa and the seventh fastest growing city in the world. The National Population Commission 2006 census affirmed that the official figure for Lagos State is 9,013,534. However, Lagos State has since experienced population explosion, untamed economic growth, and unmitigated rural migration. Subsequent to the re-modernization project achieved by the administration of the former Governor, Raji Babatunde Fashola, Lagos gradually becoming a major tourist destination, and being one of the largest cities in Africa and even in the world. Lagos is currently taking steps to become a global city. Lagos is Nigeria's economic focal point, generating a significant portion of the country's GDP. Most commercial and financial businesses are carried out in the central business district situated on the island. This is also where most of the country's commercial banks and financial institutions, as well as major corporations are headquartered. Lagos has one of the highest standards of living as compared to other cities in Nigeria as well as in Africa (World Population Review, 2019)

This seeming envious position has serious implications for the provision of urban services like portable clean water, sanitation, good roads, sufficient shelter, creation of jobs and waste disposal strategies. The inability of government to address the multiplicity of the recurrent decimal usually accompanies the largest unmet demands, thereby giving hope to environmental insecurity among residents.

## **Methodology**

### **Research Design**

The study adopted a descriptive survey research method. The study was conducted in Isolo Local Government area of Lagos State, Nigeria using purposive sampling technique for study location and convenience sampling technique to select five hundred participants in Ejigbo community.

### **Procedures**

The instrument used for data collection was a self-developed and validated questionnaire by experts which yielded 0.71 as reliability co-efficient. Data were analyzed using descriptive statistics of frequency counts and percentages for demographic profiling of the participants while inferential statistics of t-test was used to test the hypotheses at 0.05 alpha level.

### **Results**

#### Participants' Demographic variables

The results are shown through providing demographic variables of the participants, Age, Sex, Marital Status, Educational Qualification and Ethnicity of the participants.

On the age characteristics of the participants, showed that 265 (53%) of the total participants were between 21-35years, 185 (37%) were 41-50years, while 50 (10%) were 51years and above. This could be deduced that more young adults are residents in the community which should have been an impetus to be mindful and jealous of their total wellbeing. In terms of sex, the table further showed that 180 (36.%) of the total participants are male while 320 (64%) were female respectively. About the marital status, the table showed that 125 (25%) of the total participants are single, 370 (74. %) are married, while 5 (1%) were others respectively. The table further showed that 45 (9%) of the participants were Ph.D. holders, 35 (7%) with Master degrees, 155 (31%) with first degrees, 60 (12%) with OND/HND, 200 (40%) have secondary school education, while 5 (1%) had no formal education. In terms of ethnicity, the table also revealed that 70 (14%) of the total participants are Hausas, 195 (39%) are Ibos, 170 (34%) are Yorubas while 65 (13%) formed other residents respectively.

**Hypotheses 1 stated that insufficient funding would have no significant difference between waste management and environmental insecurity among residents in Ejigbo area of Lagos State**

<b>Sex</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>T</b>	<b>Critical t</b>	<b>Sig p</b>	<b>Remark</b>
Male	180	1.50	.501	3.939	3.868	.000	Significant
Female	310	1.32	.468				

The t value of 3.939 is significant at 5% ( $P < 0.05$ ). Therefore, the hypothesis which stated that insufficient funding would have no significant difference between waste management and environmental insecurity among residents in Ejigbo area in Lagos State is hereby jettisoned.

**Hypothesis 2 stated that effective and control would have no significant difference between waste management and environmental insecurity among residents in Ejigbo area of Lagos State**

Sex	N	Mean	Std. Deviation	T	Critical t	Sig p	Remarks
Male	180	1.44	.498	3.351	3.272	.001	Significant
Female	320	1.30	.458				

The t value of 3.351 is significant at 5% ( $P < 0.05$ ) The hypothesis which stated that effective monitoring and control would have no significant difference between waste management and environmental insecurity among residents is hereby jettisoned.

**Hypothesis 3 stated that inadequate facilities and equipment would have no significant difference between waste management and environmental insecurity among residents in Ejigbo area of Lagos State**

Sex	N	Mean	Std. Deviation	T	Critical t	Sig p	Remarks
Male	180	1.28	.449	1.813	1.763	.071	Not significant
Female	315	1.21	.405				

The t value of 1.813 is not significant at 5% ( $P > 0.05$ ). Therefore, the hypothesis which stated that inadequate modern facilities and equipment in implementing efficient waste management methods would have no significant difference between waste management and environmental insecurity among the residents is hereby retained.

**Hypothesis 4 stated that awareness and campaign would have no significant difference between waste management and environmental insecurity among residents in Ejigbo area of Lagos State**

Sex	N	Mean	Std. Deviation	T	Critical t	Sig p	Remarks
Male	180	1.50	.501	3.092	3.055	.002	Significant
Female	320	1.36	.481				

The t value of 3.092 is significant at 5% ( $P < 0.05$ ). The hypothesis which stated that awareness campaign would have no significant difference between waste management and environmental insecurity among the residents is hereby jettisoned.

### **Discussion of findings**

These findings showed that domestic waste management has significant influence on environmental insecurity among the residents. Aminu-Kano & Lawal (2001) reiterated that, waste management was an appendage under the government setting and that government used to manage waste, but now there is a gradual shift from government funding with management being transferred into private hands. They stressed further that, waste management on its own is both capital and economic intensive, which means huge capital outlay is required. This, however, means that, wherever there was availability of funds, the issue of waste management had to be given priority. The effective monitoring and control has significant difference on environmental insecurity among the resident. Oshinowo (2010) supported the finding that, Lagos state government recognizes the importance of legislation as a tool for ensuring environmental behaviour modification among human beings. He further stressed that ever before now, series of laws have been promulgated to influence her citizens' compliance with the ethics of qualitative environment. For example, Environmental Sanitation Edict No. 12. 1985 which provides for environmental sanitation within the state and the repeal of the environment Sanitation Edict No. 7 of 1983.

The inadequate modern facilities and equipment in implementing efficient waste management has significant influence on environmental insecurity among the residents. Onibokun (2009) observed that the modern materials designed to reduce waste and promote the re-use should be adopted in implementing efficient waste and management strategies. The awareness campaign has significant difference on environmental insecurity among the residents. Bassey, Benta-Coker & Aluyi, (2006) submitted that the government should regularly engage stakeholders in various environmental enlightenment activities. For instance, there have been series of radio and television jingles and drama sketches which the relevant government agencies have developed. Such campaign materials are now being aired on both the state television and radio in English, Pidgin English and other indigenous languages that are peculiar to the state.

### **Conclusion and Recommendations**

In view of this, it is therefore concluded that, both the residents and governments should develop

proactive concerted efforts in ensuring that, the communities in which people live are guided and guarded jealously. The following recommendations were made that; provide enough fund for the running of waste collection and management within the states, provision of qualified health personnel to monitor the activities, create a comprehensive waste action plan, divert organic waste from landfill by creating composting opportunities, educate the public on recyclable material processing and eco-conscious purchasing practices, discourage single use bags within the city, provide accessible recycle bins in public places and partner with local districts to create waste reduction and recycling programmes.

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