

# Environmental Sanitation Practices Among Traders of Kofar Wambai Market-Kano State of Nigeria

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## ABSTRACT

*This study investigated Environmental Sanitation Practices among Traders of Kofar Wambai Market, Kano State of Nigeria. Descriptive survey design was used for the study. Descriptive survey is the one in which a group of people or items are studied by collecting and analyzing data from only few people or items considered to be the representative of the entire group. The researchers adopted descriptive survey method for this study because it enables specific issues to be investigated through information on people's opinion and beliefs. The population of this study comprised all traders of Kofar Wambai Market, Kano State, estimated to be 20,000, (Tax and Revenue Collection office, 2015). Simple Random Sampling Technique was used and 250 samples were selected to represent the whole population of the market traders. Five (5) research assistants were invited to have assisted in administering the questionnaires, each research assistant was given 50 questionnaires in order to collect data for analysis. Data collected was analyzed using simple frequency counts and percentage for organization and description of the demographic characteristics of respondents, it was also used in analyzing the respondents' practical opinions as well as the government supports in providing sanitation infrastructures toward achieving the purpose of sanitation program. The instrument for data collection was closed-ended questionnaire designed by the researchers, titled "Environmental Sanitation Practice among Traders of Kofar Wambai Market Kano State, Nigeria". The questionnaire contained two (2) sections; (I) and (II). Section (I) consists of questions on Demographic Information of the Respondents, (i.e. Gender, Age and Educational Qualification), while section (II) consists of questions on practical participation of traders and government funding supports toward achieving predetermined objectives of environmental sanitation in market. Based on the findings of this study it was concluded that practices of environmental sanitation among the traders of Kofar Wambai market were relatively poor, hence there is need for improvement. It was also recommended among others that the market authority has to provide all-round the market places in order to improve current and existing sanitation practices of the market users, this will help to prevent indiscriminate disposal of waste and facilitate sanitized waste disposal all over the markets. Revenue generated by government officials in the market should be properly used to provide sanitation related facilities and equipment in the market. There is need for re-*

*design system and improvement of the local markets as well as creation of new and modern markets to reduce the high numbers of street-sellers in the state, which will surely decrease the amount of solid waste in the study area.*

**Keywords:** Environment; Sanitation; Environmental Sanitation Practices; Market Traders; Kofar Wambai Market Kano.

## INTRODUCTION

The term environment has been defined by different personalities with different views. Uchegbu, S. N., 2000 views the environment in terms of ecology and defines it as the science of the organism in relation to other organisms of different species, and to those of its own kind. It was also reported that the Oxford Advanced Learners English Dictionary however, defines the environment as conditions, circumstances etc. affecting people lives (Uchegbu, S. N., 2000). In another development, environment has been defined as the sum total of all conditions that surround man at any point in time on the earth's surface (Uchegbu, S. N., 2000). Environment has been categorized by Canter (1975) as air environment; water environment; noise environment; biological environment; cultural environment; and socio-economic environment. The environment is normally viewed in the physical sense as explained by Holderness & Lambert (1982), who stated that environment is made up of air, water and land (Holderness & Lambert, 1982). Therefore, environment refers to the natural environment in which man, animals and plants live and interact, it includes basically the land, water and air. It is upon this natural surrounding that all creatures depend for their existence and sustenance (Uchegbu, S. N., 2000). However, living components of creation are found in all facets of the physical environment. Under a normal condition, the living things interact symbolically among themselves and with lite physical environment, it has been noted that before man came to (he scene), the physical environment was as pure as the spring water, Uchegbu, S.N. added.

Uchegbu, S.N. (2000) also, stated that man's activities on the environment has tended to degrade and make the

environment untidy/unneatened and unlit for human habitation because of its poor sanitation nature.

However, sanitation is said to be the state of cleanliness. It is a broad concept and connotes the process of keeping something clean. According to Kpatriok K. (1980), sanitation is the arrangement for protecting the health, especially the removal of the human, industrial and domestic wastes. Sanitation is also a process embarked upon to keep the total of man's environment hazard free, as added by Kpatriok, (1980).

According to Uchehgbu, S.N. (2000) Sanitation is aimed at protection and promotion of public health which is meant for the improvement of environment. Thus, the three concepts such as environment, sanitation and public health are inter-related because each one of them affects the other. Public health was viewed as a state of individuals' well-being due to the influences and impacts of the physical environment and sanitation practices of the community. Good health is part of the overall development of a community. The issue of public health is a concern to the citizen and everybody or organization, it is the science and art of preventing diseases; prolonging life; promoting physical and mental health and efficiency through organized community efforts such as proper sanitization of the environment; the control of community infection; all of which will ensure a standard of living for every individual in the community, this will adequately maintain healthy conditions (Uchehgbu, S.N. 2000).

Public health however, has been defined as a science and art that deals with the protection and improvement of community health by organized community's efforts, this include: preventive medicine, sanitary and social services (Uchehgbu, S.N. 2000) Accordingly, public health is an effort organized by society to protect, promote and restore people's health, it is the combination of sciences, skill and beliefs that are directed to the maintenance and improvement of health through collective and social actions. Public health emphasizes the prevention of diseases and this can be achieved through proper sanitation. Sanitation whether in the urban or rural area protects and/or enhances the environment and by extension the health of the citizens. Sanitation is thus, the aspect of environment which may affect the health of the citizen Uchehgbu, S.N. (2000) added.

According to (Worlanyo, E.K., 2013) One of the crucial, unsolved, or even unresolved problems for those concerned with the quality of life in the world, especially the developing world is that of adequate, accessible and acceptable basic sanitation. It was reported that human right to sanitation is directly linked to other human rights. Moreover, the right to sanitation involves explicit requirements in terms of accessibility, affordability, availability, quality and acceptability (Worlanyo, E.K., 2013). Based on this Mulama (2008) argues that sanitation is more important than political independence. It is a commonly held view, that developing countries would follow the development path forged ahead by industrialised countries, these developing countries Nigeria inclusive need to be aided by the developed countries before they move forward in terms of sanitation progress (McGranahan, Pedro, Songsore, Surjadi, & Marianne, 2001).

According to McGranahan et al (2001) urban sanitary practices of industrialised countries, have helped contribute to the dignity, health and wealth of people in those countries, and thus have great bearing on the practices and the aspirations of

developing countries. Markets, municipalities, cities and towns need to grapple with the problem of Solid Waste Management, especially plastic waste, which inclusively the Kofar Wambai Market of Kano suffers (Amankwah, 2005). The issue of improved sanitation has to be given priority in Kofar Wambai market Kano, since sanitation benefits connect between environment and health (Harvey, 2008). Sanitation program has to do with solid waste management, specifically the plastic waste menace/danger.

The enormous and huge amounts of plastic waste generated throughout the world are the most crucially posed challenges lead to raised questions on how to manage wastes efficiently and effectively to save the environment and the continuous existence of mankind (Uchehgbu, S.N., 2000). A solid waste is any material which comes from domestic, commercial, and industrial sources arising from human activities which has no value to people who possess it and is discarded as useless (Freduah, 2004; 2007). However, the population densities in urbanised areas and per capita waste generation increased, the available land for waste disposal decreased proportionately (Shafiul & Mansoor, 2003). Sanitation thus emerged as an essential, specialised sector for keeping cities healthy and liveable (Fobil, 2000). Hunter (2000) predicts that in the foreseeable future more than half of the world's population will live in urban areas, and that the developing countries, including Nigeria will be the worst hit by sanitation problems if care is not taken.

The contribution of trading activities to the livelihoods of the population, particularly in the informal sector cannot be overemphasized (Aryeetey & Nyanteng, 2006). The market place as an important structural part of the local economy which facilitates the exchange of commodities, transfer of monies, traffic generation, information flow and other forms of spatial and social interactions also leads to waste generation especially, plastic waste (Worlanyo, E.K., 2013). This issue has the potential for environmental pollution with its attendant public health implications (Aryeetey & Nyanteng, 2006; Mwanza, 2001). Inadequate environmental sanitation has been recognized as a public health hazard worldwide (Ekong, Ibanga Eyo, 2015).

Public health problems associated with lack of effective environmental sanitation can be reduced/eliminated favourably if proper sanitary activities are performed by market traders. Thus, actions that threaten lifestyle or take up personal time (spending more time to do sorting of waste for example could have economic costs on market users and would not be widely supported (Fortner, et al., 2000; O'Connor et al., 2002). However, behaviour change strategies that are consistent with the public's awareness and understanding of improved environmental sanitation are therefore necessary in order for sustainable policy to be developed (Plotnikoff, et al., 2004).

People defecate in public if they have poor access to sanitation that would enable them to eliminate their human excrement Worlanyo, E.K., (2013). According to the latest report on the United Nations Millennium Development Goals, eighteen percent of the world population defecates in the open. This was about 1.2 billion people out of the already 2.5 billion people in the developing countries including Nigeria without access to basic sanitation (Worlanyo, E.K., 2013) added.

The possible causes of increase in flood severity around cities in Nigeria, Kano inclusive ranged from inadequate flood

management practices to poor waste management and lack of proper drainage system. However, urban floods occurred when drainage system, gutters and other storm control devices spilt to its plains/areas of land and over flow to flood control devices during heavy rains. Drains, as well as rivers and streams near the urban centres were often choked with refuse or silted up, this resulted in reduced capacity of river and stream channels causing flooding (Worlanyo, E.K., 2013).

According to Domfeh (1999), Environmental pollution could be ascribed to the uncontrolled disposal of both industrial and domestic waste which created problems in the collection and disposal of human waste in the metropolis. The spread of diseases through food was common problem which resulted in appreciable morbidity and occasional mortality. Traders played important roles in ensuring food safety throughout the chain of production, processing, storage and preparation (Abanobi, Dozie, Ukaga et al., 2009) added. Thus, the researchers recognized the importance of market traders with regard to healthy sanitation practices, hence the development of this research work to objectively investigate the Environmental Sanitation Practices Among Traders of Kofar Wambai Market, Kano State of Nigeria. This led to the preliminary observations, investigation as well as documentation to in order to find the possible solutions to the environmental sanitation problems in the study area.

The issue of environmental sanitation in Nigeria Kano State in particular faces major challenges such as waste disposal especially, plastic waste which has become a major problem of several markets in the state as a result of highest business-related activities. Sheikh Nasiru Kabara Market, popularly known as (Kofar Wambai Market) which this study focused on, is facing environmental sanitation challenges as well, this is closely related to plastic wastes and other human wastes generated which have the potential to destroy the natural environment in which human and natural resources in the state and the country inhabit. The status of the local and traditional markets in the state. Kofar Wambai Market and Kurmi Market is in hard, bad, nasty and deteriorated condition in which the heaps of refuse and other solid wastes might have turn to be a fuel when there is fire outbreak. The market places face challenges of environmental sanitation, such as improper drainage system; lack of good refuse disposal systems; inadequate number of toilets and bathrooms; blockage of essential routines and exits that will be used for emergency purposes; lack of health facilities; absence of health personnel, to mention few are the common problems in the market.

It is based on these problems that the researchers intend to investigate whether the factors therein such as gender, age and education level; lack of sanitation practices by the market traders with regard to sanitation programs; traders' personal cleanliness; or the government supporting negligence that have contributed to the problems observed by the researchers in study area (i.e. Kofar Wambai Market, Kano State). Thus, this study was developed to answer the following questions;

### Research Questions

- i. Do the demographic factors (i.e. gender, age and education level) affect sanitation program in the market?
- ii. Do traders in Kofar Wambai Market participate in monthly environmental sanitation program in the market?
- iii. Do the market traders clean their business area regularly?

- iv. Do the Kano state government provided sanitation related facilities and equipment in the market towards achieving the purpose of environmental sanitation program?

### Purpose of the Study

The study aimed at investigating the Environmental Sanitation Practices Among Traders of Kofar Wambai market, Kano State of Nigeria, with specific objectives such as:

- i. To identify the improvement of sanitation practices among Traders of Kofar Wambai Market, Kano State of Nigeria.
- ii. To determine the promotion and maintenance of healthy living environment through the healthy practices of traders in the state.
- iii. To determine whether Kano state government provide sanitary facilities and equipment in the Kofar Wambai market toward achieving the purpose of sanitation program in the market and the Kano state environment.
- iv. To report the lapses with regard to sanitation as a result of poor sanitation practices exhibited by traders with the intention to facilitating healthy sanitation practices among market users, other community members in the state and Nigerian society at large, and with a view to find the possible solutions to the problems detected.

### Significance of the Study

This study is of immense benefit in the following ways:

- i. The study explores appropriate strategies and recommendations to facilitate good sanitation practices in all market places of Kano.
- ii. The study will serve as a reference point to the Ministry of Health, Ministry of Environment, Kano State Refuse Management and Sanitation Board (REMASAB) and other concerned bodies for sustainable development of sanitation programs in Kofar Wambai Market and other market places of the state with similar problems.
- iii. It will also give an in-depth understanding of what the problems of poor sanitation practices are and the strategies to tackle the problems in the market area, Kano state and other Nigerian states as well.
- iv. The study will also contribute to the existing body of knowledge with regard to sanitation practices among market traders of Kofar Wambai Market toward achieving effective as well as efficient environmental sanitation in the state.
- v. The study will also stimulate further research on the subject in the area and other market places with similar problems in the state and the country in general.

### Delimitation of the Study

This study is delimited to Sheikh Nasiru Kabara Market (popularly, known as Kofar Wambai Market), the Kano State of Nigeria. It is also delimited to market traders that buy and sell items in the market.

## METHODOLOGY

### Research Design

Descriptive survey research design was used for this study. Descriptive survey is the one in which a group of people or items are studied by collecting and analyzing data from only few people or items considered to be the representative of the

entire group. The researchers adopted descriptive survey method for this study because it enables specific issues to be investigated through information on people's opinion and beliefs.

**Population of the Study**

The population of this study consists all traders of Kofar Wambai Market-Kano State, estimated to be 20,000, (Tax and Revenue Collection office, 2015).

**Sample and Sampling Technique**

Simple Random Sampling Technique was used and 250 respondents were selected among the traders as the sample for the study. According to Amburg (2004), in any population above 2500, a sample of 250 is sufficient enough to use as a sample for the study. However, five (5) research assistants were invited and trained on how to administer the questionnaires, each research assistant was given 50 questionnaires to assist the researchers in administering the questionnaires for data collection.

**Data Collection Instrument**

Closed ended questionnaire was designed by the researchers, it was used as the instrument for data collection, the questionnaire was titled "Environmental Sanitation Practices among Traders of Kofar Wambai Market-Kano State, Nigeria". The questionnaire contained two (2) sections; I and II.

Section (I) consists of questions on Demographic Information of the Respondents, (i.e. Gender, Age and Educational Qualification), while section (II) consists of questions on environmental sanitation practices among the market traders, traders' personal cleanliness as well as questions on government supports in providing sanitary facilities and equipment toward achieving the purpose of sanitation in the market and the state in general.

**Data Collection Procedure**

Two hundred and fifty (250) questionnaires were distributed to the market traders, although 235 questionnaires were retrieved back to the researchers for analysis. The distribution has been done based demographic information of the respondents (gender, age and educational qualifications). The exercise was done with the help of (5) research assistants. They assisted the researchers in distributing, administering and retrieving the questionnaires. This was done within a period of three (4) weeks.

**Data Analysis**

Data collected was analyzed using frequency counts and percentage for organization and description of the demographic characteristics of respondents, it was also used in analyzing the respondents' opinions on environmental sanitation practices and that of government supports in terms of provision and distribution of sanitary facilities and equipment in the market toward achieving the purpose of sanitation.

**RESULTS**

**Table (I) Demographic Information of the Respondents**

S/N	Variables	Frequency	Percentage%
1. Gender:	Male	169	72%
	Female	66	28%
	<b>Total</b>	<b>235</b>	<b>100%</b>
2. Age:	18-22 years	27	11%

23-27 years	46	20%
28-32 years	47	20%
33-37 years	52	22%
38years & above	63	27%
<b>Total</b>	<b>235</b>	<b>100%</b>

**3. Educational**

<b>Qualification:</b>		
WEAC/NECO/TCH/GCE	145	62%
Diploma	57	24%
B.Sc./B.A./HND	31	13%
PGD/PGDE/PDPA/PDPM/		
M.A/M.Sc./PhD	02	01%
<b>Total</b>	<b>235</b>	<b>100%</b>

Table (I) shows the demographic characteristics of the respondents on the gender side, it revealed that 169 (72%) were male while 66 (28%) were female, this showed that majority of the respondents were male counterparts.

From the age dimensions of the respondents the table revealed that 27 (11%) of the respondents aged 18-22 years, 46 (20%) of the respondents were aged 23-27 years, respondents with the age 28-32 years have 47 (20%), respondents aged 33-37 years were 52 (22%), while 63 (27%) of the respondents were aged 38 and above (this is the group majority group among the respondents).

The table also shows Educational Qualifications, it revealed that respondents with WAEC/NECO/TCH/GCE qualifications were 145 (62%), those with Diploma were 57 (24%). B. Sc. / B.A /HND holders were 31 (13%), PGD/PGDE/PDPA/PDPM/ M.A /M. Sc. /PhD holders were only 2 (1%). This showed that respondents with WAEC/NECO/TCH/GCE were the majority.

**Table (II) Traders' Practices of Environmental Sanitation**

S/N	Statement	Responses	Frequency Percentage
1. I participate in monthly environmental sanitation program	Yes	79	34%
	No	156	66%
	<b>Total</b>	<b>235</b>	<b>100%</b>
2. I clean my business area regularly	Yes	60	25%
	No	175	75%
	<b>Total</b>	<b>235</b>	<b>100%</b>
3. Government provide sanitary facilities and equipment in the market to facilitate achieving the purpose of sanitation program	Yes	35	15%
	No	200	85%
	<b>Total</b>	<b>235</b>	<b>100%</b>

Table (II) shows Traders' Practices of Environmental Sanitation. It revealed that 79 (34%) of the respondents participate in monthly environmental sanitation program, 156 (66%) of the respondents who were the majority do not participate in the program.

It was also revealed that 60 (25%) of the respondents clean their business areas regularly, while respondents 175 (75%) do not clean their business areas, this means that the latter are the majority.

However, 200 (85%) of the respondents, do not agree that environmental sanitation among the traders of Kofar Wambai government provide sanitary facilities and equipment available market were relatively poor and there is need for improvement in the market, whereas only 35 (15%) of the respondents agreed, this showed that the former is the majority.

### DISCUSSION

The study investigated the Environmental Sanitation Practices Among Traders of Kofar Wambai Market, Kano-Nigeria. The (I) that showed the demographic information of the respondents, revealed that males were the large proportion gender with 169 (72%), respondents aged 38 years & above 63 (27%) were the majority, further more, the large percentage of the respondents were the holders of WAEC/NECO/TCH/GCE with 145 (62%).

Table (II) above revealed that most of the respondents proportionately 156 (66%) do not participate in environmental sanitation program in the market. Also, 175 (75%) respondents do not clean their business areas. Thus, Environmental sanitation practice among the Traders of Kofar Wambai Market was very low, this result is supported with (Chukwuma et al, 2017) report which stated that the proportion of residents of Communities of Nigeria with practice towards environmental sanitation was (20.8%) out of hundred, in other words, the practice was very low.

However, according to the result on the table (II) above, 200 (85%) of the respondents (the majority group) believed that government do not provide sanitary facilities and equipment in the market. Hence, there is need for provisions of modern sanitation infrastructures, this is supported by (Chukwuma et al, 2017) who reported that a lot of attention is still required in the development of basic sanitation infrastructure and there need in the promotion of strategies or interventions that influence behavioral change towards environmental sanitation especially in developing countries like Nigeria.

### CONCLUSION

Based on the findings of this study, it was investigated and concluded that:

Table (I) showed demographic information of respondents, it revealed that majority of the market traders in Kofar Wambai were men and their age ranged were 38 and above, most of the traders in the market were holders of WAEC/NECO/TCH/GCE as their educational qualifications.

The table (II) above revealed environmental sanitation practices among the traders, it is hereby concluded that majority of the market traders do not participate in monthly environmental sanitation programme.

It was also investigated and concluded that most of the traders in Kofar Wambai Market do not regularly clean their business areas.

Majority of the traders do not agree that government provide sanitary facilities and equipment available in the market.

Therefore, based on the aforementioned conclusions, the researchers are hereby concluded that the practices of

### RECOMMENDATIONS

Based upon findings of this study, the following recommendations were made;

1. The market traders need to be enlightened about the implications of poor sanitation practices to their health, their customers, as well as that of the community and society at large. There is also need to implement periodic public education programs to inform market users about negative effects of waste in order to change their attitudes toward the maintenance of proper sanitary activities in the market places of the State, also seminars/workshops should be organized periodically on the importance of sanitation in the market places to the society as a whole.
2. The government should put waste management and sanitation under the Ministry of Health and Ministry of Environment respectively, so that a close eye would be kept on the program implementation by experts who have the ability, skills and adequate knowledge to cast their operational duties, rather than leaving it in the hands of local authorities that for the most part, do not have the expertise to handle the issue of sanitation and health related to environmental implications. Sufficient budget should be made available by the government for the sustainability of the program.
3. In order to improve current practices in the market, the market authority has to provide bins/containers all-round the market, so as to prevent indiscriminate disposal of waste, facilitate sanitation practices of the market traders toward sanitized waste disposal all over the markets.
4. Revenue generated by the government officials from the market users should be properly utilized in providing sanitation related facilities and equipment in the market. There is need for re-design system and improvement of the local markets as well as creation of new and modern markets to reduce the high numbers of street-sellers in the state, which will surely decrease the amount of solid waste in the study area.
5. Provision of reasonable fine by the government will be essential, so as to promote and maintain public order towards sanitation as a way to facilitate effective, and sustainable sanitation practices among the traders, community and the society.

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