



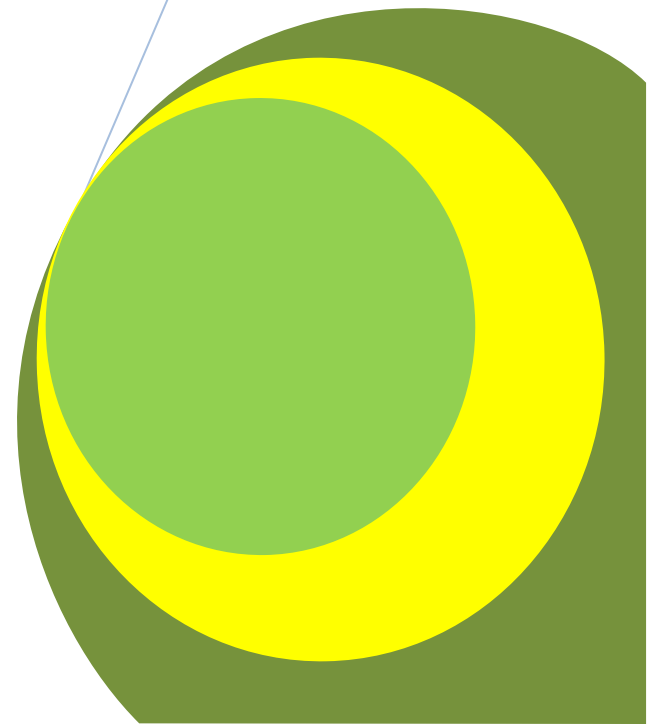
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A Critical Assessment of Waste Management Problems in Ibadan South-West Local Government Area, Ibadan, Nigeria

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Research Article

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ABSTRACT

This paper did a critical assessment of waste management problems in Ibadan South-West Local Government Area (LGA) of Oyo State in Nigeria. Six hypotheses were tested using Pearson Product Moment Correlation (r) at a significant level (α -level) of 0.01, to check the significant relationships of six identified factors that contributed to the waste management problems in the study area. The results of the hypotheses tested indicated that there were significant relationships between the problems and the educational background of the city dwellers. The nonchalant attitude of the inhabitants towards their environment is another significant contributory factor to waste management problems in Ibadan South-west LGA. Lack of adequate number of environmental-health personnel and good operational equipments to work with also posed a big problem to waste management in the study area. The results further revealed that the area suffered waste management problems due to lack of proper physical town planning and lack of adequate funding to support the poor environmental state of health of the community. The concerned authorities were thereby advised to take note of the six factors highlighted in the study and to also effect necessary changes to mitigate the effects of these problems.

Keywords: Environmental hazards, solid waste, waste disposal, waste management

INTRODUCTION

The environment is very crucial to the existence of every creature, just as it serves as a place of abode to any creature; it also contributes to a large extent to the quality of life of such creature (Oreyomi, 2005). The failure of the numerous efforts to address the problem of environmental health hazard in developing nations has been attributed to various factors like; unhealthy socio-cultural practices, poor environmental sanitation education and awareness, low literacy level, bad governance, disregard to the rule of law and other forms of indiscipline (Omotosho, 2005).

Solid Waste Management entails the collection, storage, transportation, treatment and disposal of waste in such a way as to render them innocuous to human and animal life, ecology and the environment generally. Solid Waste Management poses serious danger to the handlers. Records have shown that man has suffered in no small way from diseases associated with solid wastes and contamination of the subsurface water by the leachate from solid wastes which are heavily laden with toxic chemicals and pathogenic organisms which contaminate the water and makes it not fit for human consumptions (Adedibu, 2008). Waste management is at its lowest ebb in most towns and communities in Nigeria; most parts of the city centres do not benefit from public waste disposal services and therefore have to bury or burn their waste or dispose it haphazardly.

Other hazards, like flooding ensued from collected but poorly disposed wastes, especially in the open dump sites. The situation becomes worse in the rainy season as the wastes get directly exposed to the rain; the water makes the waste wet and it drains out, thus polluting the streets and nearby stream or block storm-water drains and thereby causing flooding. All these health and environmental hazards have been witnessed continuously by the study area for almost 20 years without a tangible measure to forestall and curtail the menace.

This research therefore aim to critically examine the problem of solid waste management by identifying the factors that are responsible for the poor environmental management and investigating the inhabitants, organized private institutions and government's contributions to the problem. The study also seeks to suggest and recommend

possible solutions so as to achieve a minimum standard of sustainable environmental management which can be improved upon into a better future for the local government, the state and the nation at large.

MATERIALS AND METHODS

Methodology

Descriptive survey research method (Ogunleye, 2000) was used for this study since a very large population is involved. A representative sample of 200 participants was drawn from five political wards through simple random sampling with replacement method. There were six hypotheses for consideration and are as listed below:

Hypothesis 1: There is no significant relationship between waste management problem and the educational background of the respondents.

Hypothesis 2: There is no significant relationship between waste management problems and attitudes of the inhabitants.

Hypothesis 3: There is no significant relationship between waste management problems and inadequate personnel.

Hypothesis 4: There is no significant relationship between waste management problem and equipments.

Hypothesis 5: There is no significant relationship between waste management problems and Physical and Town Planning.

Hypothesis 6: There is no significant relationship between waste management problems and funding.

Research Instrument

The research instrument for this study was a self developed, structured questionnaire which was made simple enough for the respondents to understand with the aim of eliciting relevant information on their level of knowledge, attitude, personnel, equipment, physical and town planning as touching waste management problems in the community.

Data Analysis Procedure

Data collected for this study was subjected to descriptive statistics using frequency and percentages of the responses. The responses were graded as follows for computation purpose; Strongly Agree = 1, Agree = 2, Disagree = 3, Strongly Disagree = 4. The relationship between the observed variables and waste management problem as constant were analyzed using Pearson Product Moment Correlation.

RESULTS

Hypothesis 1: There is no significant relationship between waste management problem and the educational background of the respondents.

Table 1: Pearson Product Moment Correlation (r) table between waste management and respondents' educational background

Variable	Mean	Std. Dev.	N	R	P	Remark
Waste management problem	57.3000	6.1555	200	0.753**	0.000	Sig.
Educational background	15.5950	4.4958				

** Significant level of 0.01

It is shown in the table above that there was a significant relationship between waste management problems and the respondents' educational background. Thus, the null hypothesis is rejected.

Hypothesis 2: There is no significant relationship between waste management problems and attitudes of the inhabitants.

Table 2: Pearson Product Moment Correlation (r) table showing waste management problems and inhabitants attitudes

Variable	Mean	Std. Dev.	N	R	P	Remark
Waste management problems	57.3300	6.1555				
Attitude	12.3250	2.7781	200	-0.434**	0.000	Sig.

**significant at 0.01

It is shown in the above table that there was a negative significant relationship between waste management problems and attitude of the inhabitants. Hence, the null hypothesis is rejected.

Hypothesis 3: There is no significant relationship between waste management problems and inadequate personnel

Table 3: Pearson Product Moment Correlation (r) table showing waste management problems and inadequate personnel

Variable	Mean	Std. Dev.	N	R	P	Remark
Waste management problems	57.3300	6.1555				
Inadequate personnel	8.8500	1.3954	200	0.643**	0.000	Sig.

**significant at 0.01

It is shown in the above table that there were significant relationships between waste management problems and inadequate personnel. Hence, the null hypothesis is rejected.

Hypothesis 4: There is no significant relationship between waste management problem and equipments

Table 4: Pearson Product Moment Correlation (r) table showing waste management problems and equipments

Variable	Mean	Std. Dev.	N	R	P	Remark
Waste management problems	57.3300	6.1555				
Equipment	7.4750	2.5871	200	0.720**	0.000	Sig.

**significant at 0.01

It is shown in the above table that there were significant relationship between waste management problem and equipment. Hence, the null hypothesis is rejected.

Hypothesis 5: There is no significant relationship between waste management problems and Physical and Town Planning

Table 5: Pearson Product Moment Correlation (r) table showing waste management and physical and town planning

Variable	Mean	Std. Dev.	N	R	P	Remark
Waste management problems	57.3300	6.1555				
Physical & Town Planning	3.7300	1.2060	200	0.536**	0.000	Sig.

**Significant at 0.01

It is shown in the above table that there were significant relationships between waste management and physical and town planning. Hence, the null hypothesis is rejected.

Hypothesis 6: There is no significant relationship between waste management problems and funding

Table 6: Pearson Product Moment Correlation (r) table showing waste management problems and funding

Variable	Mean	Std. Dev.	N	R	P	Remark
Waste management problems	57.3300	6.1555				
Funding	9.3550	2.0148	200	0.281**	0.000	Sig.

**significant at 0.01

It is shown in the above table that there were significant relationships between waste management problems and funding. Hence, the null hypothesis is rejected.

The variables earlier explained show critically the problems of waste management in Ibadan South-West Local Government Area as they showed positive significance except attitude which shows negative significance. This means that despite high level of awareness of waste management problems in the community, the inhabitants' attitude were not encouraging towards solving these problems.

DISCUSSION

The community inhabitants' sensitization and education on adverse effects of poor environmental management on health is not adequate. There were no proper orientation and training as to how to keep the environment clean and how best to dispose waste in order to prevent diseases and other health hazards that could result from poor environmental management (Olorunda, 2006). The traditional practice among the people of Ibadan showed that they employ vast quantities of leaves of various plants for fermentation, preparation, wrapping, storage, sales and dishing of foods (Ogundele, 2007). Also, during harvesting periods, farmers bring their farm products such as vegetables, yam, cassava, corn, millet and fruits to urban areas for sale. These practices often contribute to large proportion of disposed biodegradable refuse in the markets, houses, towns and cities which have reached per capital generation of 2kg/day (Odeyemi, 2001 and Oreyemi, 2005). It is evident in the hypothesis 1 above that the little knowledge that the community occupants had about environmental and waste management and control is inadequate; hence, the poor environmental management. The poor attitude towards keeping and maintenance of hygienic environment also stemmed from the inadequate knowledge of the inhabitants on safe and hygienic waste handling and management (Akpala, 2006). Many household in the community do not have a suitable container to keep their wastes prior to collection for disposal at the community dump sites by the local government authority (Obemeata *et al.*, 2000). It had been reported that exposure to uncollected food wastes led to health hazards due to the decaying matter which provided suitable material for harmful insects, rats and other creatures to thrive and rapidly aid the cause and spread of diseases like cholera, diarrhea, dysentery, guinea worm and typhoid fever (Komolafe, 2011). This finding was similar to the documentation by Fafioye and John-Dewole (2012) in their study on 'Effect of Solid Waste Management on the People of Iseyin Community in Oyo State, Nigeria'. The major source of portable water in the community is hand-dug well; some of which are not having a good depth to avoid seepage of contaminant into it. In some houses, wells are found to be too close to latrines and sewage systems; there could be possible leaching of contaminants from the latrines into the well and thereby making the water unfit for drinking and other domestic uses (Ajayi, 2008).

RECOMMENDATIONS

It is therefore suggested that for proper waste management in Ibadan South-west, the following must be carried out:

1. Adequate orientation on waste management for the residents so that they will be properly equipped as to how to handle and process their wastes and even to generate incomes from them.
2. Government should provide more sanitary and health personnel to adequately and sufficiently cover the whole community for proper monitoring and education on waste management.
3. Government should also supply adequate equipments and facilities for the sanitary and health personnel to work with, in order to achieve maximum output.
4. Government should also encouraged government-private partnership, in order to lessen the burden on the government and increase community participation in the environmental management.

There are also very few environmental health and sanitation personnel to the number of houses in the community. As a result of this, some houses and vicinities are not thoroughly inspected during the routine community and environmental monitoring of the sanitation personnel.

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