

---

## The Roles of Scavengers in Waste Management in Abuja Municipal Area Council, Abuja, Nigeria

---

Ogah, A T; Adana, M.Y; Magaji. J. I & Kadafa A. A  
Department of Geography,  
Nasarawa State University, PMB 1022, Keffi, Nigeria  
Email: tankogah@yahoo.com  
Corresponding Author: Ogah, A T

### ABSTRACT

The study the roles of scavengers in waste management in Abuja Municipal area council was aimed at assessing the importance of scavengers in managing waste in the area. Descriptive research design was adopted for the methodology in which data were generated from questionnaires, interview, and observation methods. 120 copies of the questionnaires were administered to the respondents. The sample size was taken from the four clusters of dumpsite in Karmo, Kuchingoro, Lugbe Federal Housing and Gosa according to the population encountered at each location at various points. All those encountered at the dumpsites at Karmo, Kuchingoro and Federal Housing was sampled except Gosa where 25 each were randomly sampled from scavenging and sorting groups. Finally the results revealed that tabulated value (T.V.) from Chi-Square table is 9.488, while the calculated value (C.V.) is 73.33. Which implies that since the C.V. (73.33) > T.V. (9.488), we accept that scavengers perform useful roles in waste management in Abuja Municipal Area Council. Therefore, the work concludes that unless the scavengers are given the necessary encouragement by the government, AEPB, and the society, effective waste management in AMAC will still remain a mirage. It is recommended that the Abuja Environmental Protection Board should hasten up the process of registering the various scavengers groups and regulate their activities so as to make scavenging a good source of youth empowerment.

**Keywords:** Scavengers, role, waste management, dumpsites

---

### INTRODUCTION

The entire globe has faced the problems of huge disparity between waste generation and waste management. This problem is compounded by many factors including rapid population growth and industrialization. For Ogwuche and Yusuf, (2011), waste could be perceived as a global phenomenon that has attracted international attention,

especially household solid waste. Waste could be solid organic substances that are biodegradable and there are wastes that are not biodegradable (for instance, plastics, bottles, and rubber). The generation of household solid waste has become an almost intractable problem in urban areas due to increasing population, high density, urbanization, industrialization, the efficiency of the

collecting systems, and lack of political will on the part of the government.

According to Amalu and Ajake (2014), in Nigeria, waste problem commenced with the rapid increase in urban growth resulting partly from population increase and more importantly with the increase in the number of people coming into the various cities in the country. In this view, there is no city in Nigeria that can boast of having competently addressed the concerns of filthiness and huge piles of wastes, instead the problem continues to assume dangerous dimensions.

Ogbuene, Igwebuiké and Agusiegbu (2013) observed that in Nigeria, waste density generally ranged from 280-370kg/m<sup>3</sup>, waste generation rate is 25 million tons annually and at a daily rate of 0.44-0.66kg/capital/day. Again, per capital rate of municipal solid waste production in Lagos was reported to range from about 0.021 kg/day/person. For Kadafa, Latifa, and Abdullah (2013), this is the equivalent to about 49 million kg waste per day (17.9 million metric tons/year) in Nigeria, with a population of 140 million as of 2006 census.

According to Adewole (2009), in Nigeria, there is a steady increase in waste quantity and variety due to population growth and industrialization, while the basic solid waste management system based on

collection, transportation, and disposal remains highly inefficient and ineffective especially in the urban centers. This has created huge problem for waste managers in the country.

Bakare (2016) observed that Nigeria generated 3.2 million tones of solid waste annually, out of which only 20 percent to 30 percent of it was collected. It is instructive to note that reckless disposal of solid waste has led to blockade of sewers and drainage networks, and choking of water bodies. In addition, most of the wastes are generated by households and, in some cases, by local industries, artisans and traders, which litter the immediate environment. Improper collection and disposal of municipal solid wastes is leading to an environmental catastrophe as the most of the cities lack adequate budgetary provisions for the implementation of integrated waste management indicating a huge lack of interest to develop the waste sector.

Elenwo (2015) pointed out that the quantity of wastes generated in Abuja had overwhelmed the capacity of the government waste management body. In this regard, Adebola (2006) opined that the existing solid waste management system in Abuja was affected by unfavourable economic, institutional, legislative, technical and operational constraints. Thus, it was further posited that a reliable waste collection service is needed and waste collection vehicles need to be

appropriate to local conditions. More vehicles are said to be required to cope with increasing waste generation. Also, it is posited that wastes need to be sorted at source as much as possible to reduce the amount requiring disposal.

For Batagarawa (2011), sustainable waste management emphasized a shift from waste disposal to other waste management options that included energy and material recovery, waste reduction and reuse in addition to the aim of decoupling increase in waste generation from economic growth. The objectives of environmental sustainability were summarized as rational resource consumption and reduction of environmental pollution. The administration aspect encompassed policy, management, research and training, responsibility issues and technologies used to provide the waste management service. Social sustainability dealt with ensuring human health and well-being in the present future generations. This concerned the well-being of scavengers in AMAC, which was abandoned by the government. Economically, sustainable waste management took into account all external costs into the total cost established for waste management. However, the costs of waste management by scavengers were ignored.

## **METHODOLOGY**

### **Research Design**

Descriptive research design was adopted in this work.

### **Reconnaissance Survey**

The reconnaissance survey was carried out between 18<sup>th</sup> and 20<sup>th</sup> February 2016. During the reconnaissance survey various dump sites in the study area were identified and four main ones; where more scavenging activities took place located and marked for the study. These were the dump sites at Karmo, Kuchingoro, Lugbe Federal Housing and Gosa dumpsite. The latter being the central government approved dumpsite for the city. It also enabled the researcher to determine the most convenient time the research would be carried out and the number of research assistants needed for the study determined.

### **SOURCES AND TYPES OF DATA REQUIRED**

Data for this work were generated from both primary and secondary sources.

### **Primary Sources of Data**

Primary data were generated from questionnaires, interview, and observation methods. For questionnaire, unstructured questionnaire method was adopted. 120 copies of the questionnaires were printed and administered to the

respondents on a face-to-face basis. In addition, the work adopted non-participant observation. By this method the researcher visited the dumpsites and observed the scavengers doing the scavenging activities.



Plate 2.1: Waste Dump at Kuchingoro, Abuja  
Source: Field work, 2017

### Secondary Sources of Data

Secondary sources included publications such as books, works of other people in the related fields, journal articles related to waste generation, waste management and activities of scavengers, official government reports on waste generation, seminar papers and addresses presented during workshops

related to topic of study. These were well acknowledged in the references.

### Methods of Data Collection

The first thing the researcher did before field work was to employ three research assistants who could speak and understand Hausa very well. Two research assistants assisted in questionnaire administration while one research assistant, who is a

university graduate, and versed in Hausa language, helped in the in-depth interview. Recall that Anumba (2014) observed that 90 percent of the scavengers in Abuja came from Kano while the rest 10 percent were from Kaduna and Katsina.

### Questionnaire

Unstructured and open-ended questionnaire was used in collecting data from 120 respondents who were drawn from four dumpsites namely; Karmo, Kuchingoro, Lugbe Federal Housing and Gosa using face-to-face basis. Only Scavengers found in the dumpsites during time of visit were used as respondents. The questionnaire was divided into two sections; sections A and B. Section A was used in collecting personal data of the respondents, while section B was used in collecting data necessary for the analysis of research.

### Population of the Study

There is no demographic data on the population of scavengers in Abuja Municipal Area Council. However, Agunwamba (2003), opined that the number of scavengers in Abuja Municipal Area Council was not less than 6,800.

### Sample Size and Sampling Technique

The sample size of this study was 120. This sample size was taken from the four clusters of dumpsite in Karmo, Kuchingoro, Lugbe Federal Housing and Gosa according to the population encountered at each location at various points (Table 3.1). All those encountered at the dumpsites at Karmo, Kuchingoro and Federal Housing was sampled except Gosa where 25 each were randomly sampled from scavenging and sorting groups.

**Table 1: Sample Size**

Dumpsite	Respondents
Karmo	19
Kuchingoro	29
Lugbe Federal Housing	30
Gosa	50
<b>TOTAL</b>	<b>120</b>

**Source:** Field Work (2017)

The research used the simple random sampling method of

probability sampling. Only the scavengers seen at the dumpsites at

time of visit were sampled. This method was adopted because scavengers are nomadic in nature hence no scavenger was restricted to one location. However, to avoid one scavenger being sampled twice, the choice of the dumpsites was such that none was less than 12km apart.

### Method of Data Analysis

This work adopted comparative data analysis method in analyzing data generated from the questionnaire. For Biereenu-Nnabugwu (2006), data generated from this method are compared with data generated from secondary sources. Textual/content analysis was employed in analyzing data generated from in-depth interview. Findings from questionnaire were presented in frequency tables or charts. Some data related to objective of the study were analyzed using Chi Square Analysis. Chi-Square is used for the determination of the discrepancy between observed and expected frequencies. According to Kothari, C.R. and Gauray, G. (2014), Chi-square  $(X^2) = \frac{\sum(F_o - F_e)^2}{F_e}$  Where  $X^2$  = Chi-square;  $\sum$  = Summation (Sigma);  $F_o$  = Frequency observed;  $F_e$  = Frequency expected.

## RESULTS AND DISCUSSIONS

### Roles of Scavengers in Waste Management in Abuja Municipal Area Council

The researcher wanted to find out from the respondents who they think they are and what role they perform in waste management.

### Who the Scavengers are and what they do in Abuja Municipal Area Council

Table 4.7 shows who the respondents are. All the scavengers held the view that they collect waste products from dumpsites and households for conversion into useful purposes. 88 percent of them believe they earn their living through looking for and selling re-usable items from households and dumpsites; 63 percent of them said they search for and sell scraps of metallic products; and 38 percent said they were refuse collectors who separate waste materials. A good look at these views show that the scavengers are all they stated in Table 4.7. This view is held by many of the scholars in their past works. Batagarawa (2011) observed that scavenging took place in all stages along the waste management system. This system involved source separation at household or place of generated waste material.

**Table 4.7: Who are Scavengers and what do they do in AMAC**

Who are Scavengers	Frequency	Percentage
Those that collect waste products from dumpsites and households for conversion into useful purposes.	120	100
Refuse collectors who separate waste materials	46	38
Those who search for and sell scraps of metallic products	75	63
Those who earn their living through looking for and selling re-usable items from households and dumpsites.	110	92

**Source:** Field Work (2017)

According to Muktar (2014), throughout the cities of Africa, Asia, and Latin America, varying number of youths survive by salvaging materials from the waste stream. The scavengers recover the materials to sell for reuse or recycling as well as diverse items for own consumption. Scavenging supplies raw materials largely to either artisans or industries. Awopetu *et al;* (2014) opined that waste-pickers, also known as scavengers, are men, women and children that make their living by selling or using valuables from materials that households and commerce discard. For Abubakar and Agbo-Paul (2016), scavenging is in two forms. It can be collection or picking from the dustbin or purchasing and

processing of recoverable materials. According to Anumba (2014), scavengers come to solicit or collect refuse from homes. The service is not free as they are paid for taking away the wastes. However, as they leave, they are equally paid by others for selling the waste to others.

### **The Useful Roles Scavengers Perform in Waste Management in AMAC**

As it has been established that the scavengers perform useful roles in waste management, the researcher sought to know the useful roles performed by scavengers in waste management. Table 4.8 shows a list of useful roles which the respondents said are performed by scavengers in Abuja Municipal Area Council.

**Table 4.8: Useful Roles of Scavengers in Waste Management in AMAC**

Useful Role of Scavengers in Waste Management in AMAC	Frequency	Percentage
Collection and sorting of waste products	120	100
Move waste to where it could be used	100	83
Reducing the volume of waste products	120	100
Keeping the Environment Clean	65	54
Reducing Harmful effect of wastes on the environment	75	63
Providing jobs to jobless youths	90	75
Helping Recycling plants get raw materials	85	71
Turning waste to wealth	85	71

**Source:** Field Work (2016)

All the respondents said the useful roles of scavengers in Abuja Municipal Area Council were collection and sorting of waste products. All of them also said they reduce the volume of waste products in Abuja Municipal Area Council; 83 percent said they move waste to where it could be used, 75 percent said scavenging provide jobs to the jobless youths in AMAC, 71 percent was of the opinion that scavenging help recycling plants get raw materials and also in turning waste to wealth; 63 percent said their role in waste management include reducing harmful effects of wastes on the environment, while 54 percent said keeping the environment clean was a useful role

they played in waste management in Abuja Municipal Area Council.

In his findings, Adeniyi (2015) observed that scavengers in Jabi, Abuja collect condemned rods, waste batteries, aluminum parts and other scrap and bring them to the scavengers' site. At the site, the heap of waste is rummaged through and sorted out. Then, every item is piled until it gets to a substantial quantity. The items are, going further, weighed, sold, and loaded in trucks to buyers outside the territory. This agrees with all the useful roles the scavengers said they play in waste management in AMAC.

However, for Abubakar and Agbo-Paul (2016), "Babanbola" are not waste workers and they are less



concerned with the waste management, they are into trading of useable waste items for socio-economic reasons, and their relationship with waste is as a resource. Though someone may look at Abubakar and Agbo-Paul (2016) view and think of agreeing with them, but how do we reconcile the concluding part of their statement that "Babanbola" are into trading of useable waste items for socio-economic reasons; and their relationship with waste is as a resource. Using wastes for socio-economic reasons and as a resource are key waste management factors which any waste management organization must take seriously. It therefore proves that scavengers' activities are useful in waste management especially in Abuja Municipal Area Council (AMAC).

Supporting the turning of waste to wealth, Awopetu *et al*; (2014)

opined that waste-pickers, also known as scavengers make their living by selling or using valuables from materials that households and commerce discard. Again Anumba (2014) further stated that the activities of these scavengers render economic and environmental benefits with a great impact on Nigerian economy through producing income to unemployed individuals, provision of inexpensive raw materials to industries, reduction of the demand for collection, transportation and disposal equipment and reduce massive water problem.

Table 4.9 is a test of the useful roles of scavengers in waste management in Abuja Municipal Area Council using Chi-Square analysis. This is done at 5% (0.5) significance level and 95% confidence level at 4 degree of freedom.

**Table 4.9: Test of Useful Roles of Scavengers in Waste Management in AMAC**

Useful Role of Scavengers in Waste Management in AMAC	Observed Freq. ( $F_o$ )	Expected Freq. ( $F_e$ )	Total	$(\frac{F_o}{F_e} - 1)^2$	$(\frac{F_o}{F_e} - 1)^2$	$\frac{(\frac{F_o}{F_e} - 1)^2}{F_e} =$
Collection and sorting of waste	120	120	120	0	0	0
Move waste to where it could be	100	83.33	100	16.67	277.78	3.33

Reducing the volume of waste	120	120.00	120	0	0	0
Keeping the Environment	65	35.21	65	29.79	887.54	25.21
Reducing Harmful effect of wastes on	75	46.88	75	28.13	791.02	16.88
Providing jobs to jobless youths	90	67.50	90	22.50	506.25	7.50
Helping Recycling plants get raw	85	60.21	85	24.79	614.63	10.21
Turning waste to	85	60.21	85	24.79	614.63	10.21
<b>TOTAL</b>	<b>120</b>					<b>Σ =</b>

Source: Field Work (2016)

Expected frequency ( $F_e$ ) = Column Total  $\times$  Row Total/ Grand Total

$$\chi^2 = \frac{\sum(F_o - F_e)^2}{F_e} = 73.33$$

Tabulated value (T.V.) from Chi-Square table is 9.488, while the calculated value (C.V.) is 73.33. Since the C.V. (73.33) > T.V. (9.488), we accept that scavengers perform useful roles in waste management in Abuja Municipal Area Council.

## CONCLUSION

Scavengers perform critical role in waste management in AMAC, even though they constituted danger to the residents, and were, also, faced with myriad of problems as they carried out the said role in AMAC. The reluctance of Abuja Environmental Protection Board and the government of Abuja Municipal Area Council to fashion out concrete ways of integrating and assisting the

scavengers to carry out their roles effectively and efficiently are antithetical to sound waste management in AMAC. This is because, for scavengers to effectively participate in waste management in AMAC, the government must give them encouragement. Therefore, the work concludes that unless the scavengers are given the necessary encouragement by the government, AEPB, and the society, effective waste management in AMAC will still remain a mirage.

## RECOMMENDATION

The Abuja Environmental Protection Board should hasten up the process of registering the various scavengers groups and regulate their activities so as to make scavenging a good source of youth empowerment;

## REFERENCES

- Abubakar, A. and Agbo-Paul, A. (2016), "Abuja Scavenging Trade and New FCT Policy". Retrieved May 25, 2016, from <http://www.leadership.ng/features/504911/abuja-scavenging-trade-new-fct-policy>
- Abuja Facts (2015), "History of Abuja". Retrieved January 20, 2016 from <http://www.fct.gov.ng/>
- Adebola, O. (2006, October), The Role of Informal Private Sector in Integrated Solid Waste Management in the Achievement of the Millennium Development goals (MDGs) in Lagos, Nigeria. A paper Presented at Solid Waste Health Millennium Development Goals, CNG-WASH Workshop, Kolkate, India
- Adelana, O. (2014), "Feature: Life of scavengers Inside Abuja's biggest dumpsites". Retrieved May 23, 2016, from <https://www.naija.com/780541.features-inside-abuja-dump-site-scavengers-make-n637-500-month.html>
- Adeniyi, T. (2015a), "AEPB goes Tough on Scavengers, Scrap Dealers". Retrieved May 25, 2016, from <http://dailytrust.com.ng/daily/index.php/city-news/61182>
- Adeniyi, T. (2015b), "Life in Jabi Scavengers Colony". Retrieved May 24, 2016, from <http://www.dailytrust.com.ng/news/aso-chronicles/life-in-jabi-scavengers-colony/128590.html>
- Adewole, A. (2009), Waste Management towards Sustainable Development in Nigeria: A Case Study of Lagos State. *International NGO Journal*, 4 (4), 173-193
- Agunwamba, J. (2013), Analysis of Scavengers' Activities and Recycling in Some cities of Nigeria. *Journal of Environmental Management*, 32(1), 116-127
- Amalu, T. and Ajake, A. (2014), appraisal of Solid Waste Management Practices in Enugu City, Nigeria. *Journal of Environment and Earth Science*, 4(1), 97-107
- Anumba, E. (2014), "Scavengers World: Abuja where wastes turn Wealth". Retrieved February 23, 2016, from <http://sunnewsonline.com/new>
- Batagarawa, R. (2011), *Sustainability Appraisal of Waste Management in Nigeria: Development and Evaluation of an Index-Based Tool*. Unpublished PhD Thesis Submitted to University of Portsmouth, Department of Civil Engineering.

- Elenwo, E. (2015), *Assessment of the Activities of Scavengers in Obio/Akpor Local government, Rivers State, Nigeria*. Choba: Department of Geography and Environmental Management.
- Kadafa, A., Latifah, A. and Abdullah, H. (2013), Current Status of Municipal Solid Waste Management Practice in FCT, Abuja. *Journal of Environmental and Earth Science*, 5(6), 295-305
- Ogbuene, E., Igwebuike, E. and Agusiegbe, U. (2013), The Impact of Open Solid Waste Dump Sites on Soil quality: A Case study of Ugwuaji in Enugu. *Journal of advanced academic Research*, 2(1), 43-53
- Ogwuche, J. and Yusuf, F. (2011), Assessment of the Factors influencing the Generation and Disposal of Urban household solid Waste in Africa: The Nigerian Perspective. *Journal of Environmental Science and Resource Management*, 3(2), 40-48
- Oresanya, O. (2016), Dumps in Lagos, Nigeria. Retrieved February 21, 2016, from <http://waste-management-world.com/tag/markets>