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Assessment of Waste Scavenging Activities in Calabar, Cross River State, Nigeria

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ABSTRACT: The study was focus on assessing waste scavenging activities in Calabar, Cross River State. Specifically, the study appraised the socioeconomic characteristics of solid waste scavengers in Calabar and analysed the contributions of scavengers in the waste management process. The study obtained data through questionnaire administration. A total of 50 copies of questionnaire were distributed purposively to waste scavengers in the study area while descriptive statistics was used in carrying out analysis. It was observed that scavenging is exclusively carried out by males and those between 31 years and 40 years dominate the waste scavenging process. It was equally revealed that the married form a larger percent of scavengers in the study area. Scavengers were observed to be engaged in picking up irons/metals, plastics, glasses, copper, bottles as well as vegetables and food remains. Scavengers are mainly involved in the exercise in order to enable them earn a living. Therefore, wastes materials that are pickup in the process are sold out to recycling companies. Specifically, iron scraps pickers sell them to iron recycling companies while vegetable waste pickers sell to fertilizer production companies. Very few scavengers use the wastes they pick up for personal uses. However, it was noted that scavengers contribute positively in the management of solid waste in Calabar. Based on the findings, it was suggested that waste sorting should be encouraged among youths through the organization of sensitization campaigns and the awareness since it has the potentials of reducing unemployment while promoting waste management. Equally, scavengers should be recognized by the government as managers in the waste sector and be given some incentives

1. INTRODUCTION

Waste scavenging involves selective picking-up of wastes that can be reused and recycled for other purposes. In order words, scavenging is refer to the activities concerned with the selection and picking of waste materials that can be used for other purposes. Those who are involved in waste scavenging are called waste scavengers. However, a scavenger is someone that is involved in picking up waste materials that are recyclable and reusable from mixed solid wastes stream (Igwe, Anaje, Onyegbu, Ezechilue and Nwatu, 2018). A scavenger may also be seen as a person whose activity is to salvage solid wastes for the sole purpose of reusing and recycling waste materials in order to sell or put such materials to personal use. In most cases, scavengers are concerned in recycling solid wastes (Asibor and Edjere, 2017). Therefore, waste materials usually searched for include iron, copper, metals, cans, wires and plastics.

Globally, scavenging has become a prevalent occupation among youths and the middle aged. For instance, Achapan (2012) and Alade (2018) in different studies noted that the phenomenon of scavenging has been widely operational in India, China, Brazil, Thailand and Colombia. In Thailand, Achapan (2012) observed that solid waste scavengers abound in multiple numbers. He showed that youths within the age of 28 largely involve themselves in the activity from where they generate between 300.03 and 600 US monthly.

In Africa, evidence of waste scavenging abound in Nairobi, Egypt, Cameroun and Nigeria. In Cameroun, Soamenou (2007) observed that solid waste scavengers consist predominantly of males that pick up metals, irons and other reusable materials that they sell and put some to use on personal basis and consume them locally.

Nigeria has witnessed a massive surge in the aspect of solid waste recycling among states as reported in extant literature. In Northern Nigeria, Magaji and Daykes (2011) showed that solid waste scavengers are largely involve in gathering metals and useful materials for sell to recycling companies. Kwasghsende and Atser (2015) revealed that scavengers are mostly between 20 and 45 years. Scavengers of wastes consist of both males and females that are mostly unemployed. They proved that scavengers even travel several miles to gather the materials.

In Southern Nigeria, there is also growing concern by scavengers in the solid waste stream management. Asibor and Edjere, (2017) and Alade, (2018) showed that in Delta State, waste scavenging by participants has developed into a means of earning livelihoods

and as a means of employment to youths. They showed that wastes that are selectively gathered by youths are usually sold out to companies that are involved in reusing and recycling the waste materials.

From the foregoing, it is obvious that solid waste recycling is not only beneficial to the scavengers but also play a role in the waste management sector. For instance, when waste is recycled, heaps of solid wastes become reduced therefore reducing the financial costs that is needed for disposing wastes. Calabar, Cross River State is one of the places in Nigeria that is witnessing growth in population and waste generation. Basically, solid waste is increasingly being generated alongside reusable/recyclable waste materials. For instance, reconnaissance have shown that materials such as bottles, cans, irons, copper, plastics and so on are disposed in large quantities in the study area. Correspondingly, waste scavengers abound in Calabar yet, their activities has not been investigated in available literature. This suggest that there is inadequate knowledge concerning the activities and contributions of waste scavengers in the aspect of managing wastes. This study therefore seek to appraise the activities of scavengers with specific reference to their socioeconomic and demographic variables and the challenges they face in the waste picking process.

2. LITERATURE REVIEW

Wastes are unwanted products. In order words, wastes are bye products that are often discarded and seen as not being useful anymore. Therefore, wastes are seen as materials that are as unfit, usually unwanted and further discarded for economic reasons and/or ignorance of alternative technologies to re-use them. Wastes abound in both gaseous, liquid and solid states. Although other wastes types can be recycled, solid waste tend to be the wastes type that is readily reused as picked up by scavengers. Momodu, Dimuna and Dimuna, (2011) forwarded that solid wastes include the totality of wastes generated from human and animal activities that are not in liquid or gaseous state. Solid wastes also include by- products of lines, materials and items that may be required to be disposed by law. Solid wastes therefore consist on items such as threads, irons, woods, plastics, bags, metals, copper, vegetable remains and papers. The above and more wastes are usually picked up by scavengers for onward sells and/or reuse as seen in the literature.

In Ghana, Aboagye-Larbi, Acheampong, Kyei and Caboo (2014), observed that despite the potential health hazards that are associated with waste scavenging, scavenging for wastes has been increasing among the youths. Basically, the reason for increasing scavenging in Ghana is poverty, unemployment and availability of waste dumps. The scavenging exercise provide income for waste pickers which they earn their livelihoods with. In Cameroun, scavenging serves as a means of employment for the youths that are involved while giving them the opportunity to contribute to environmental management (Achapan, 2012).

Igwe, Anaje, Onyegbu, Ezechilue and Nwatu (2018) noted that scavenging is a very instrumental solid waste management option that can be helpful in the reduction wastes at dumpsites and further expand the life span of landfills. They specifically observed that waste scavengers recover reusable and recyclables materials such as plastics, papers, scraps metals, aluminum, metals and copper. Most scavengers offer the products they pick up for sell thereby providing them with the means of earning livelihoods and reducing unemployment. Considering the positive roles that waste scavenging play as seen in their study, they recommended that safety awareness and health education be provided so as to reduce the occupational hazards that the scavengers are exposed to in the course of their scavenging activities. They also called for grants for scavengers in order to encourage them expand their businesses since they play significant roles in the waste management process.

The study of Asibor and Edjere (2017) in Delta State – Nigeria showed that scavengers are readily involved in selecting materials such as scrapped metals, plastics, polyethylene, and cans from dumpsites. They observed that scavengers sell items that are recovered or use them by themselves. They highlighted that irrespective of the fact that five percent of dumped wastes were recovered, each dumpsite employed more than fifteen house-holds in terms of providing materials for sell. Asibor and Edjere therefore buttressed that scavengers play important roles in the informal solid waste management through waste reduction, minimization and material recovery. They therefore called on the government and policy makers to legalize waste scavenging and equally merge it into recognised co-operatives and further enforce safety sanitary conditions and implement voluntary waste segregation at source by household, industries, companies and government establishment.

Alade (2018) examined the role of scavengers in solving the problem of solid waste management in urban areas. He observed that waste scavengers in Warri, Delta State are predominantly males between 15 and 30 years of age. However, scavengers in this part of the world get involved in the job due to unemployment. However, they assist in reducing the heaps of wastes thus, they called on the government to embark on waste-to-wealth programmes in order to attract more income to the scavengers so as to encourage them.

Kwaghsende and Atser (2015) noted that waste pickers consist of both males and females that are mostly between the ages of 20 and 45 years. Their study pointed out that participants in waste picking in developing countries had low educational attainments yet, they are contributing significantly to the management of wastes. They noted that the survival of some of the waste pickers is tied to the activities of scavenging. However, available literature have shown that scavengers are playing significant roles in waste management while earning livelihoods from the activities of scavenging.

3. MATERIALS AND METHODS

Calabar metropolis is the study area. Calabar lies located between Longitudes 8 º18` East and 8º26` East of the Greenwich meridian and Latitudes 4º50' North and 5º67' North of the equator. It has a surface area of 159.65square (Offiong, Offiong and Ekpe, 2014). Calabar shares boundaries to the North with Odukpani Local Government Area and Calabar River to the West. It also share boundaries with the Great Kwa River in the West and the Atlantic Ocean in the South (Figure 1). The population of Calabar has been growing steadily over the years. It was 328876 in 1991 while currently, projections put the population at over 60000 persons. The residents of Calabar are engaged in civil service, trading and artisanal activities.

In order to ensure availability of data, 50 waste scavengers across Calabar were purposively sampled for questionnaire administration. Data were collected on their socioeconomic characteristics, income they generate from waste scavenging, types of wastes they pick, the challenges they face in the waste picking process among others. Descriptive statistics were used carrying out the analysis.

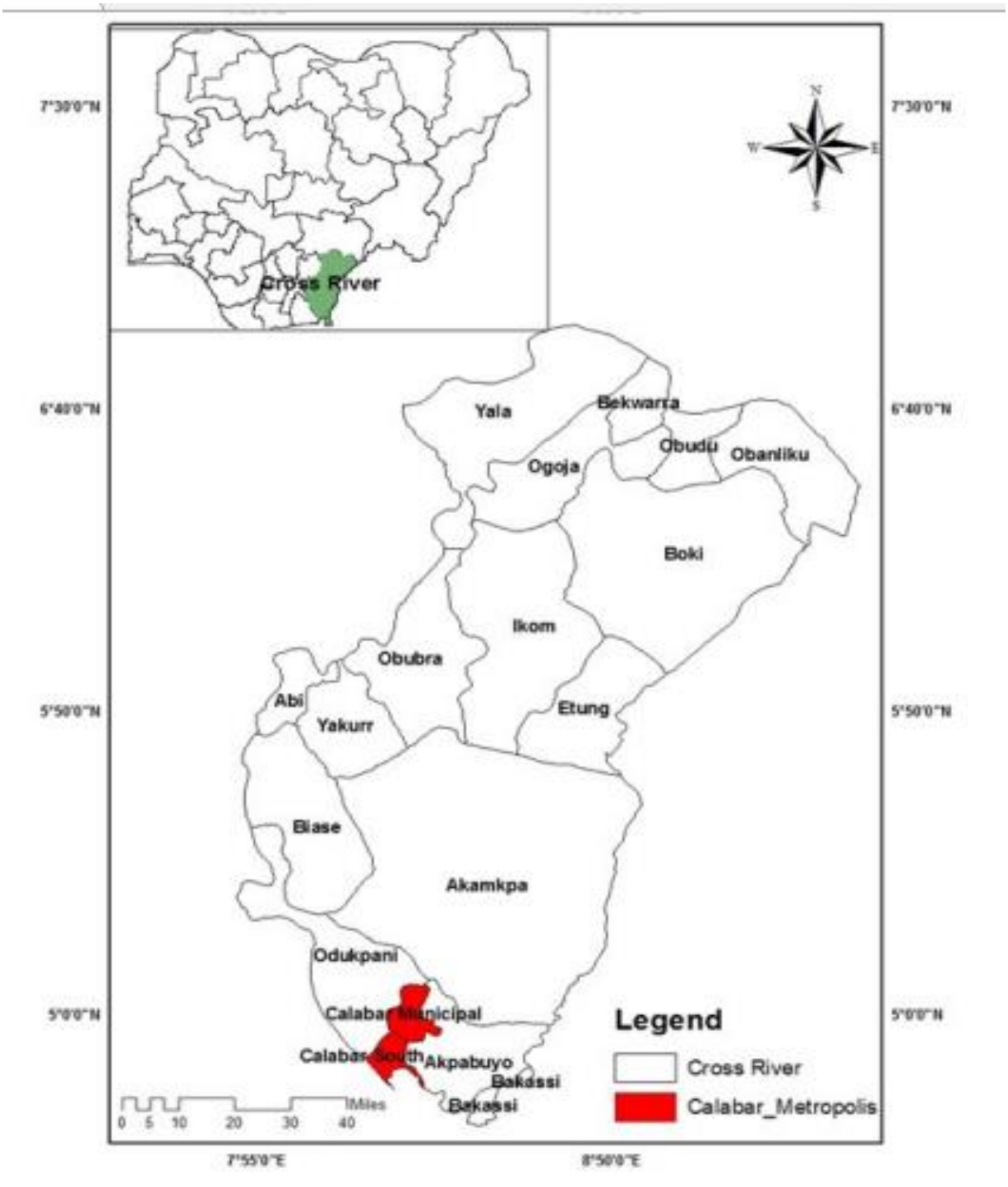

Figure 1: Map of Cross River State showing Calbar Metropolis
Source: Cross River Geographic Information Agency, 2016

4. STUDY FINDINGS AND DISCUSSIONS

Table 1: Socioeconomic Characteristics of Scavengers

Categories		Frequency	Percentage
Sex	Male	50	100
	Female	-	-
	Total	**50**	**100**
Age	Below 18	4	8
	18-30	12	24
	31-40	23	46
	41-50	8	16
	50<	3	6
	Total	**50**	**100**
Marital status	Married	31	62
	Single	19	38
	Divorced	-	-
	Total	**50**	**100**
Educational Qualification	FSLC	11	22
	SSCE	21	42
	Post Secondary	2	4
	No formal Education	16	32
	Total	50	100
Monthly Income	Below N20,000	3	6
	20,001-40,000	6	12
	40,001-60,000	12	24
	60,001<	29	58
	Total	50	
Religion	Christianity	38	76
	Islamic	12	24
	Traditional	-	
	Total	**50**	**100**
Involvement in Scavenging	Full time	41	82
	Part time	9	18
	Total	**50**	**100**

Source: Field Survey, 2020

The socioeconomic economic characteristics of scavengers in the study area as seen in table 1 shows that only males participate in waste picking within the study area. It also showed that waste pickers in the study area are predominantly between the ages of 31 years and 40 years old. Scavengers below 18 years old constitute the smallest fraction. The table equally showed that scavengers are predominantly married and a larger percent of the population are educated up to SSCE level. Scavengers predominantly generate up to ₦60,001 and above on monthly basis. In the study area, scavengers of waste are mainly Christians and a reasonable number (82 percent) are involved in scavenging at the full time level.

From the table, it can be deduced that scavenging for waste is a viable occupation and it provides means of earning livelihoods to waste pickers. For instance, the funds generated from the activity is useful for the maintenance and upkeep of their families. The fact that a greater percent (82 percent) of scavengers take waste picking as a full time occupation is enough reason to believe that scavenging is lucrative.

Table 2: Materials picked by Scavengers

Materials	**Frequency**	**Percentage**
Irons/metals	23	46
Cans	2	4
Plastics	5	10
Glasses/bottles	5	10
Clothes	-	-

Food remains/vegetables	3	6
Copper	12	24
Total	**50**	**100**

Source: Field Survey, 2020

Table 2 revealed that scavengers largely pick up irons and metals from dumpsites within the study area. The irons and metals are recycled by iron and steel companies into different shapes and sized of irons. The table also showed that only 4 percent are involved in picking up cans while plastics wastes are picked up by 10 percent scavengers in the study area. Glasses and bottles constitute 10 percent of the materials picked up by scavenger while 6 percent pick up vegetables and food remains which are used for production of fertilizers and manure. Copper is the main waste material picked up by 24 percent scavengers. The variation in the focus of wastes materials that are scavenged for suggest that there is demand for the materials by recycling establishments.

5. REASONS FOR SCAVENGING

Scavengers in the study area pointed out that they are involved in scavenging mainly to enable them earn a living. Therefore, wastes materials that are pickup in the process are sold out to recycling companies. Notably, those that pick up iron scraps sell them to iron recycling companies while vegetable waste pickers sell them to fertilizer production companies. Very few scavengers use the wastes they pick up for personal uses. From the responses of the scavengers, it is obvious that scavenging for solid waste materials provides the means of earning livelihoods to waste pickers.

6. RECOMMENDATIONS

i. Waste sorting should be encouraged among youths through the organization of sensitization campaigns and the awareness since it has the potentials of reducing unemployment while promoting waste management
ii. The government should make laws that will bring about waste sorting before disposal
iii. Scavengers should be recognized by the government as managers in the waste sector and be given some incentives

7. CONCLUSION

Waste picking by its nature plays a very serious role in the waste management process. It is useful in reducing the heaps of wastes in the environment while promoting environmental management. In the study, it was observed that waste scavenging is a useful tool in employing the youths. It also help in providing recycling companies with materials. The importance of scavengers in the waste management process therefore cannot be over-emphasized. The study recommended that waste scavengers be given motivational incentives and be recognized by the government.

REFERENCES

1) Aboagye-Larbi, H., Acheampong, M., Kyei, S. and Caboo, D. (2014). The potential health hazards associated with waste scavenging in Ghana: A case study of three selected dumpsites in Tema Metropolis. *International Journal of Environmental Science and Toxicology*, 2(10): 199-209.
2) Achapan, I. (2012). Household recycling behaviour, the role of responsibility in Thailand. *International Conference on Future Environment and Energy, Singapore. Vol 2*8
3) Alade, M. J (2018). Managing waste in an urban centre: The role of scavengers. *International Journal of Development and Sustainability*, 7(10): 2475-2486
4) Asibor, I. G and Edjere, O. (2017). Assessment of the activities of scavengers and their economic impacts in waste recovery in Warri metropolis, Delta State Nigeria. *International Research Journal of Public and Environmental Health*, 4(2): 22-29
5) Igwe, P.U., Anaje, E.C., Onyegbu, C.U., Ezechilue, F.B., and Nwatu, M.T. (2018). A review of scavenging as a means of environmental management. *International Journal of Rural Development, Environment and Health Research*, 2(1): 10-17
6) Kwasghsende, F. K and Atser, J (2015). Analysis of socio-demographic characteristics of participants in informal recycling of solid wastes. *Journal of Contemporary Urbanology*, 5(2): 35-45
7) Magaji, J. Y and Daykes, S. P (2011). An assessment of socio-economic impact of waste scavenging as a means of poverty alleviation in Gwagwalada, Abuja. *Confluence Journal of Environmental Studies*, 42-56
8) Momodu, N. S., Dimuna, K and Dimuna, J. E (2011). Mitigating the Impact of Solid Wastes in Urban Centres in Nigeria. *Journal of Human Ecology*, 34(2): 125-133
9) Offiong, V. E., Offiong, R. A. and Ekpe, I. A (2014). Socio-economic characteristics of property owners and level of compliance with building regulations in Calabar, South-Southern Nigeria. *International Journal of Humanities Social Sciences and Education*,1(1): 26 – 32.
10) Sotamenou, J. (2007). The determinants of recycling and the use of domestic waste in urban swamp areas of Yaounde, Cameroun. University of Yaounde, Faculty of Economics and Management