The Socio-economic Benefits of Environmental Sanitation Exercise to Environmental Workers in Zaria L.G.A. of Kaduna State, Nigeria.

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This study examines the socio-economic benefits of Environmental Sanitation work to environmental workers in Zaria LGA .The questionnaire was the main source of data. The research drew a representative sample of 248 respondents from a population of 700. This figure was derived from seven systematically selected wards across the study area. All the thirteen wards were arranged alphabetically and assigned numbers from 1 to 13, only wards with odd numbers were selected. Every ward has 100 Environmental Sanitation Workers from which 31 were selected, giving a total of 248. The streets were purposively selected, while respondents were randomly selected. The structured questionnaire was used for collecting primary data. Descriptive and inferential statistics were implored in analyzing the data. Results show that majority of the workers work for only 2hours daily and earn a salary of #18,000 monthly. It was recommended that for effective job performance, there is the need for close supervision of the workers and concluded that in most urban centers in Nigeria, the arrangements for refuse disposal have been ineffective or insufficient.

Key Words: Environment, Sanitation, Pollution, Waste, Drainage

Introduction

Nigeria is a country which places a great emphasis on cleanliness. A decree from the days of military government which is still in force mandates that the last Saturday of every month is Sanitation day, meaning that movement is banned or restricted from 7:00am -10am. Families are expected to use the time when they are confined to tidy the environment.

Unfortunately, once household waste is gathered, the problems begin. Nigeria's growing population, an asset in economic growth terms, is placing great pressure on solid waste management (SWM) systems which are in many cases already antiquated, informal or nonexistent (Pascoe,2016; Istifanus,2002; Adeyini and Faniran,1993; Sada,2008)

In one sense, the growing problem of waste disposal is a symptom of the country's success. Rapid urbanization has long been symptomatic of fast-developing nations. The drift into the cities of former agricultural workers who hope to join the urban middle class is part of a wellestablished path to prosperity. Likewise, the increasing consumption of packaged goods which produce more waste by-product than when consumption is largely agricultural. In this sense, Nigeria's waste management problem is not the result of poor planning but of the rapid pace of change found in a country which has averaged 6.8% GDP growth since 2005 (Adejobi & Olorunnimbe, 2012).

Nigerians already produce substantial quantities of non-sewage waste. One study has found that Lagos alone produces 9,000 tons of waste per day, the same amount as Hong Kong. If the country does succeed in its goal of becoming one of the 20 largest global economies by 2020, then it will need to make significant reforms to the SWM process (Pascoe, 2016; Sada,2008, Agwu,2011).

Part of the reforms is the establishment of the Environmental Sanitation Workers unit by the Kaduna State Environmental Protection Authority. The Kaduna State Environmental Protection Authority (KEPA) was established by edict of 1994 and later revised in 1998. The authority is charged with the responsibility of addressing all environmental problems in the state including but not limited to organizing Programs aimed at changing people's negative attitudes towards environmental management for sustainable development. In line with vision and mission of the Authority, the services stipulated to be rendered by the Authority are:

(a.) The control, removal and disposal of liquid waste;

(b.) The control and disposal of solid waste;

(c.) The control of vector pest, rodents and reptiles; potable and waste water effluent discharges; Noise which constitutes nuisance; The use of septic tanks and sewage maintenance; bush burning, indiscriminate felling of tress; stray and wandering animals; public conveniences and cemeteries; The use of residential areas for prohibited purpose; working or driving on prohibited areas; and

(d.) Doing such other things as are necessary or expedient for the purpose of enhancing a healthy environment within the State.

To achieve the stated objectives above, in November 2015, the State Government created the Environmental Sanitation Workers whose job descriptions, just like their counterparts in other parts of the world, particularly the United States includes: A sanitation worker has a dirty job, but it's one that most communities can't live without. Sanitation workers make sure neighborhoods, streets, and public areas stay clean, and they dispose of trash in safe, effective, and environmentally friendly ways. A sanitation worker must be physically fit, so he can quickly climb in and out of large trucks and lift heavy trash containers. Many sanitation workers obtain driving certifications, allowing them to operate commercial vehicles (Tucker, 2016). Other duties include; Perform heavy manual labor, Use hand tools, Hand sweep or shovel debris and rubbish, Must be able to lift 50lbs, Gather and empty trash as requested.

The objectives of the study, among others, are;

1. to identify the social benefits associated with the job
2. to determine the economic benefits accruable to sanitation workers

The Study Area

Zaria Local Government Area is situated on the High Plains of Northern Nigeria and is approximately 670m above sea level. It is located on latitude $11^{o}\ 42^{l}$ N and longitude $7^{o}\ 44^{'}$ about 664km from the sea.

Zaria belongs to the tropical continental type of climate which corresponds to Koppen`s tropical Savannah climate (AW) which is characterized by strong seasonality in rain fall and temperature distributions. It has two distinct seasons- the dry season (Oct-Mar.) and wet season (Apr- Oct). Mean annual rainfall is about 1000mm, while mean monthly temperature is about 27^{o} but is highest between the months of March and May. It is lowest in December/ January reaching about $27^{o.}$ The soil type is highly leached tropical ferruginous soils, developed on

weathered regolith overlain by a thin deposit of wind-blown silt from the Sahara desert. Natural vegetation is the northern Guinea Savannah with shrubs and a few scattered trees. The dominant shrub is Isoberlina doka while the common grass is Andropogon spp. (Obadaki, 2007).

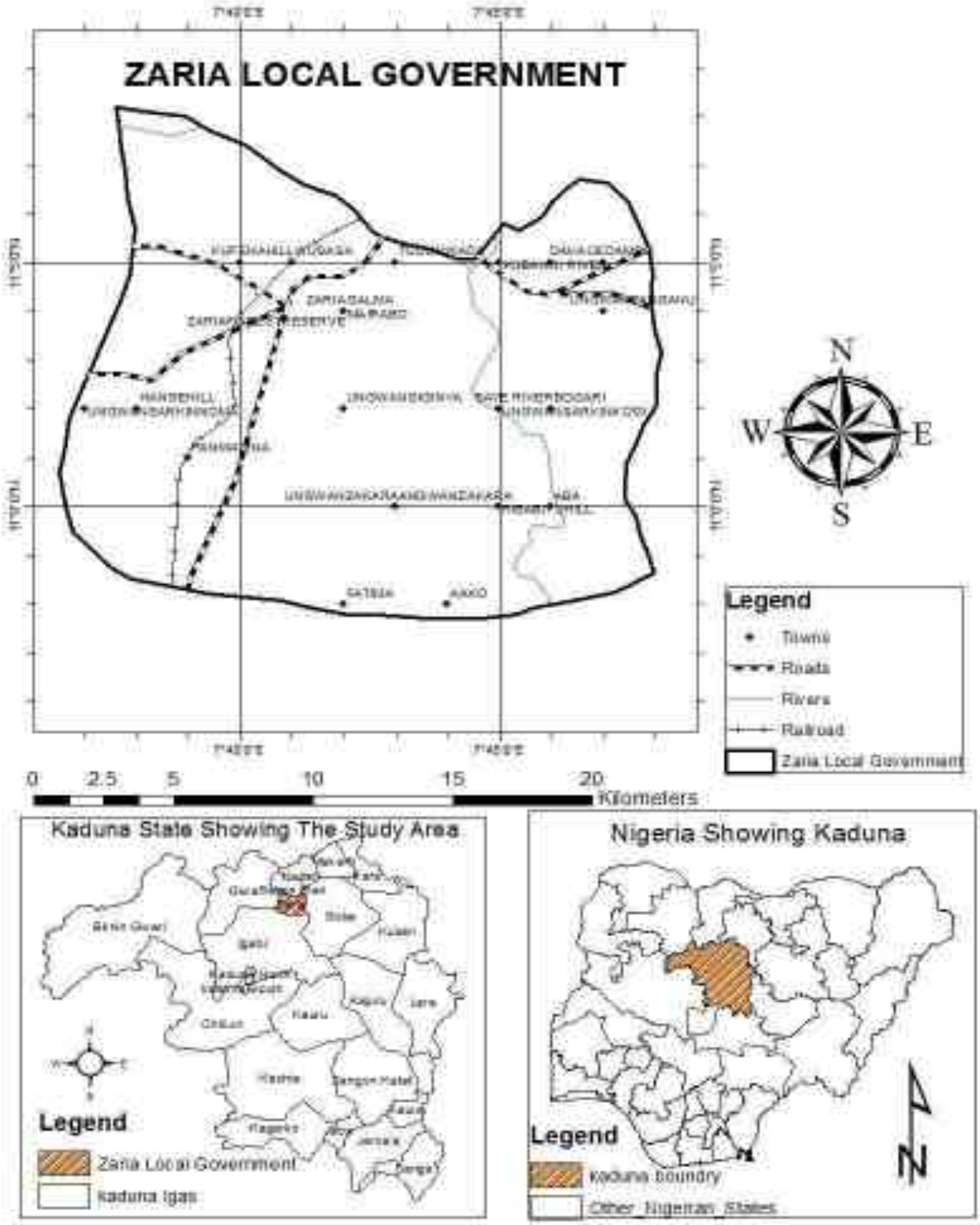

Figure 1: Map of the study area

Source: Department of geography Federal College of Education, Zaria.

Methodology

The questionnaire was the major source of data for this study. It elicited information on respondents bio-data as well as occupational status, job satisfaction, tools used, types of waste generated by residents, among others.

Sample and sampling technique

The research drew a representative sample of 248 respondents from a population of 700. This is according to the Krejcie and Morgan table of samples. This figure was derived from seven systematically selected wards across Zaria Local Government Area. All the thirteen wards were arranged in an alphabetical order and assigned numbers from 1 to 13, only wards with odd numbers were selected, hence the following wards: Ang. Juma, Dambo, Gyellesu, Kwarbai A, Kufena, Tudun-wada and Wucicciri. Every ward has 100 Environmental Sanitation Workers from which 31 were selected, giving a total of 248. The streets were purposively selected since only the major streets in the locality are slated for cleaning, while respondents were randomly selected. The structured questionnaire was the major tool for collecting primary data. Secondary data was sourced from KEPA. The questionnaire elicited information about respondents' bio-data as well as income, nature of payment, job satisfaction, equipment used and contributions toward environmental sustainability. Descriptive statistics were implored to analyze the data collected.

Results and Discussions

Table 1: Gender and Marital Status of Respondents

Sex	Resp	%	Status	Resp	%
Male	144	58	Single	48	19.4
Female	104	42	Married	168	67.7
			Divorced	24	9.7
			Widowed	8	3.3
TOTAL	248	100	TOTAL	248	100

Source: Field Survey, 2016

Table 1 shows the gender and marital status of the respondents. The male folk dominate their female counterparts and this may not be unconnected to cultural and religious reasons. The fact Zaria is a predominantly Hausa and Islamic enclave where women are not permitted to mix freely with men. The other reason could be due to the nature of the job which at times requires physical strength which only the men are capable of doing. Tucker (2016) corroborates this, noting that 'trash can be heavy, so a sanitation worker must be able to lift

heavy trash cans, furniture, electronics, metal and plastic containers, trash bags, and bulky packaging'.

From the table, the marital status of the respondents equally show that most of them are married (67.7%) as against a meager 19.4% and 9.7% that are still single and divorced respectively.

Table 2: Respondents' Educational attainment and Number of children

Education	Resp	%	Children	Resp	%
Quranic	72	29	0-3	96	38.7
Primary	64	25.8	4-7	88	35.5
Secondary	88	35.5	8-11	64	25.8
Tertiary	24	9.7			
TOTAL	248	100	TOTAL	248	100

Source: Field Survey, 2016

From table 2, majority of the respondents are holders of the Senior Secondary School Certificate closely followed by those that attended only Quranic schools. This agrees with Akut (2008) findings in Zaria that majority of waste scavengers have Quranic education as a major qualification. Also, NEOGOV (2016) opines that the sanitation worker should have the ability 'Read and write the English language at a level necessary for efficient job performance'.

Table 3: Respondents' Present and Previous occupations

Present Occupation	Resp	%	Previous occupation	Resp	%
Environmental worker	248	100	Unemployed	88	35.5
Civil Servant	0	0	Civil Servant	0	0
Business	0	0	Housewife	48	19.4
			Farmer	64	25.8
			Artisan	32	12.9
			Business	16	6.4
TOTAL	248	100	TOTAL	248	100

Source: Field Survey, 2016

Table 3 shows respondents' present and previous occupations revealing that all of them are presently employees of the Kaduna State government only. Previously, majority of them were unemployed, farmers, housewives, artisans and petty traders. Further enquiry reveals that while they are currently employees of the State government, some of them have switched jobs (35.5%) adducing reasons such as the present job pays more (18.2%) and offering them more time for other economic ventures (81.8%), according to table 4.

Table 4: Respondents' present and former occupation

Only Job?	Resp	%	If no, why change	Resp	%
Yes	160	64.5	This job pays more	16	18.2
No	88	35.5	It gives more time for other activities	72	81.8
TOTAL	248	100	TOTAL	248	100

Source: Field Survey, 2016

Table 5: Daily working hours and Income

Hours	Resp	%	Income	Resp	%
1	40	16	#16,000	0	0
2	96	38.7	#17,000	0	0
3	80	32.3	#18,000	248	100
4	32	12.9	#19,000	0	0
5	0	0	#20,000	0	0
TOTAL	248	100	TOTAL	248	100

Source: Field Survey, 2016

Majority of the respondents (38.7%) work for only two hours daily while only a tiny minority work for up to four hours per day (12.9%). The remainder work for one and three hours daily (table 5). In reality though, these workers in some quarters participate in the clean up exercise

mostly at the weekends (Saturdays and Sundays), observation has shown. For working for a few hours daily, these people take home #18,000 (eighteen thousand naira) monthly as shown in table 6. This amount however does not compare to the $4,711 (#1,512,231) that accrues to environmental sanitation workers in the United States (NEOGOV, 2016). None of these workers receives table or cash payment as all of them get paid through the bank. As to the regularity or otherwise of the payment, most of them opine that payment is not regular (67.7%) while the rest say payment is regular (32.3%). This is not surprising as there are complaints of personnel being owed months of salary arrears.

Table 6: Nature of Payment and Regularity

Payment	Resp	%	Regularity	Resp	%
Cash/Table	0	0	Regular	80	32.3
Bank	248	100	Not regular	168	67.7
TOTAL	248	100	TOTAL	248	100

Source: Field Survey, 2016

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Table 7: Sufficiency of inco

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Sufficiency	Resp		Alternative	Resp	%
Yes	104	41.9	Yes	56	38.9
No	144	58.1	No	88	61.1
TOTAL	248	100	TOTAL	248	100

Source: Field Survey, 2016

From table 7, majority of the respondents (58.1%) do not seem to be comfortable with their take-home pay as it was termed insufficient. When asked whether they have an alternative source of income, most of this set of workers answered in the negative (61.1%), while only few of those who said their salary is not sufficient have other sources of income.

Table 8: Improvement on livelihood and how

Improvement	Resp	%	How	Resp	%
Yes	232	93.5	Only means of livelihood	144	58.1
No	16	6.5	Alternative	104	41.9
TOTAL	248	100	TOTAL	248	100

Source: Field Survey, 2016

When asked if this job has improved their livelihood and that of their families, the response was an overwhelming yes (93.5%) as against those who feel their livelihoods have not been improved upon (6.5%) as seen in table 8. To buttress their point, some of them alluded to the fact that they have been able to build new houses, buy motor bikes for commercial purposes and acquire other items of necessity in the households all from the salary they are being paid. On how it has improved their livelihoods, majority say it is their only means of earning a living (58.1%), while the rest (41.9%) see the job as providing them with an alternative source of livelihood.

Table 9: Job satisfaction

Happy	Resp	%	Ashamed	Resp	%
Yes	224	90.3	Yes	24	9.7
No	24	9.7	No	224	90.3
TOTAL	248	100	TOTAL	248	100

Source: Field Survey, 2016

On job satisfaction, all the respondents answered in the affirmative that they are happy with the job. While they all express happiness with the job, some are ashamed doing it (9.7%). Of this number, very few (33.3%) are willing to take a pay cut for a job that pays less but more prestigious, but the rest, even though they are ashamed of the job, they are not ready to make such a sacrifice and would rather stay with this job (66.7%). Table 10: Willingness to accept a job that pays less

Willingness	Resp	%
Yes	8	33.3
No	16	66.7
TOTAL	24	100

Source: Field Survey, 2016

Conclusion

In most rural and urban centers within Nigeria, the arrangements for refuse disposal hav e been ineffective or insufficient. These wastes are dumped indiscriminately on open plots of land and particularly, along and on streets. Some of the streets affected may be rendered impossible for traffic for several days or months as a consequence. Every Nigerian city is afflicted by this malaise and its end appears not to be in sight.

Recommendations

Based on the research findings and conclusion drawn, the following recommendations are made;

- ♦ For effective job performance, there is the need for close supervision of the workers
- ♦There is also the need for an upward review of workers' wages to serve as incentive
- ♦Payment of workers' salary should also be prompt as unnecessary delays demoralizes staff

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