

Characterisation of Housing Condition in Peri – Urban Areas of Kaduna Metropolis, Nigeria

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Abstract

The study aimed at assessing the characterization of housing condition in Peri – Urban areas of Kaduna metropolis, Nigeria. Four Peri – Urban settlements were sampled. Data from both primary and secondary sources were obtained. Research techniques employed include field observation, interview and questionnaire administration. Twenty five respondents from each settlements of Nassarawa Rigasa, Hayin Na Iya/Malalin Gabas, Hayin Dan Bushiya and Dawn Quarters were selected using purposive and simple random sampling. The data was analyzed using descriptive statistics, percentages, frequencies, and bar chart. The result of the study revealed that 64% of the houses in the four Peri – Urban settlements of Kaduna metropolis were constructed with modern cement blocks and zinc roof. It also indicated that the major source of energy is electricity and firewood forming 56%. The study therefore offered some recommendations; Kaduna State Urban Development Authority (KASUPDA) should pay much and extra attention in the proper management and administration of housing construction in the peri-urban areas. There should be adequate provision of sources of energy to the peri-urban areas by the authorities concerned. The health authorities have their role to play in managing, construction and usage of toilets. The ministry of environment and other related agencies should pay much attention on how refuse are disposed in the peri-urban areas.

Keywords: Characterization, Construction, Housing Condition, Peri-urban.

INTRODUCTION

Land possesses a central position to human culture and institutional development (Ahmad, 2012). Land is one of the resources in any city that need to be effectively managed for better urban and peri-urban management outcomes (Ayman Kamel, 2004). Urbanization is one of the oldest global phenomenon currently shaping the way we live and intricately challenges our housing, transportation, land use among others (Egidario *et al*, 2016). The urban

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periphery allows for multi-dimensional developments. It accommodates industrial activities due to the limited land area in the city centre and also provide a means of housing for the urban population. Local, state and federal government need to participate in the process of urbanization to coordinate urban planning agencies with relevant stakeholders towards housing development in the peri-urban areas (Adedire and Adebamowo, 2018).

Peri-urban areas adjoining city centers are well known for depicting significant changes in their housing conditions. Developmental activities are bound to occur within a very short period of time. Urbanization and urban growth are considered as modern way of life which manifest in economic growth and development in many countries. That means the level of urbanization and socio-economic status of the inhabitant is correlated in many countries (Tamira, 2016). Therefore, urbanization grows at such unprecedented rate that cities are spilling over their boundaries into nearby peri-urban areas and rural villages where economic transfer takes place at a massive scale (Pallabi and Veronica, 2016). The word peri-urban is inter changeably used as suburb areas, extended places or areas, out skirt areas, sprawl areas, peripheral land, transition zone, rural hinter land, urban fringe, middle band areas, commuting zone, urban edge, urban frontier among others (Berry, 1990; Daniel, 1999; Inhoff, 2000; John, 2008; Mandere, 2010 and Ravetz *et al*, 2013). The term peri-urban has been defined differently by many scholars. For instance, Pallabi and Veronica (2016) defined peri-urban as a home to migrant population who are unable to afford the city life, and also is a place where people shift from agricultural activities to non agricultural activities. Appiah *et al* (2014) sees peri-urban land as a prime agricultural land outside the cities bought by urban residents for residential or commercial purposes. The term peri-urban is also defined as a rural agricultural areas located in urban built-up areas in cities and predominantly rural agricultural areas (Achamyeleh, 2015).

Peri-urban areas have diverse characteristics in terms of integrated mixed housing structures of different developmental activities. Hence, with the tremendous urban expansion in peri-urban Kaduna metropolis, this study attempts to assess the characteristics of housing condition in peri-urban Kaduna metropolis. Several studies have been conducted both locally and internationally by different researchers on housing condition in peri-urban settlement. For instance, Ayesha *et al* (2014) in Pakistan conducted their study on housing structure in peri-urban areas of Faisalabad where 96% of the respondents were able to own houses and more than 70% of them were able to own cemented houses. Similarly Adedayo and Akinremi (2015) in Ibadan Nigeria, conducted a research on peri-urban housing in Apete Ibadan, where binary regression methods of analysis was applied, and it was revealed that there is a significant relationship between housing structural condition and residential accessibility to housing services. A study on housing condition was also carried out by Peter *et al* (2017) in Okpoko peri-urban settlement of Anambra State Nigeria where the study found that majority of the buildings in the area and the surrounding environments are in a very critical and deplorable condition. Another study was conducted in Latin America on housing structure by global housing watch (2018) and it is revealed that there are privately developed affordable housing in the peri-urban areas of Goiania, Brazil, Puebla and Mexico. It is revealed that this housing structure owed their development due to accessibility of approval process, cost of land and presence of infrastructure.

This study aimed at assessing the characterization of housing condition in the peri-urban areas of Kaduna metropolis, Nigeria. The study have the following objectives; to examine the nature of houses used by the respondents, to examine the source of energy for lighting and cooking used by the respondents, to examine the types of toilets used by the respondents and to assess their methods of refuse disposal. The study focused on peri-urban

settlements in the North, South, East and Western parts of Kaduna metropolis which are all within the four local Governments of Kaduna metropolis. These Local Governments comprise Kaduna North, Kaduna South, Igabi and Chikun Local Government Areas. The selected settlement include; Nassarawa in Rigasa in the West in Igabi Local Government Area, Hayin Na Iya/MalalinGabas in the North in Kaduna North Local Government Area (LGA), Hayin Dan Bushiya in the East in Chikun Local Government Area (LGA) and Dawn Quarters in Makera (Kakuri) in the south in Kaduna South Local Government Area (LGA).

METHODOLOGY

Reconnaissance surveys were made primarily for familiarization of the study area prior to the detailed field survey to obtain relevant information. Both primary and secondary sources of data were used. The study selected 25 respondents from each of the settlement making 100 respondents (representing 72%) which served as the sample size of 137 of the population of the four settlements. Purposive sampling and simple random sampling were the methods used in selecting the sample size. Field observation, interview and administration of questionnaires were the techniques employed in obtaining the data. Two visits were made for each of the four settlements, one for interview and the other for questionnaire administration to the respondents. A total of one hundred questionnaires were administered on the field. Community leaders, religions leaders, adults, old age and youths were among the respondents for both interview and questionnaire administration. In analyzing the data descriptive statistics, frequencies, percentages and bar charts were employed.

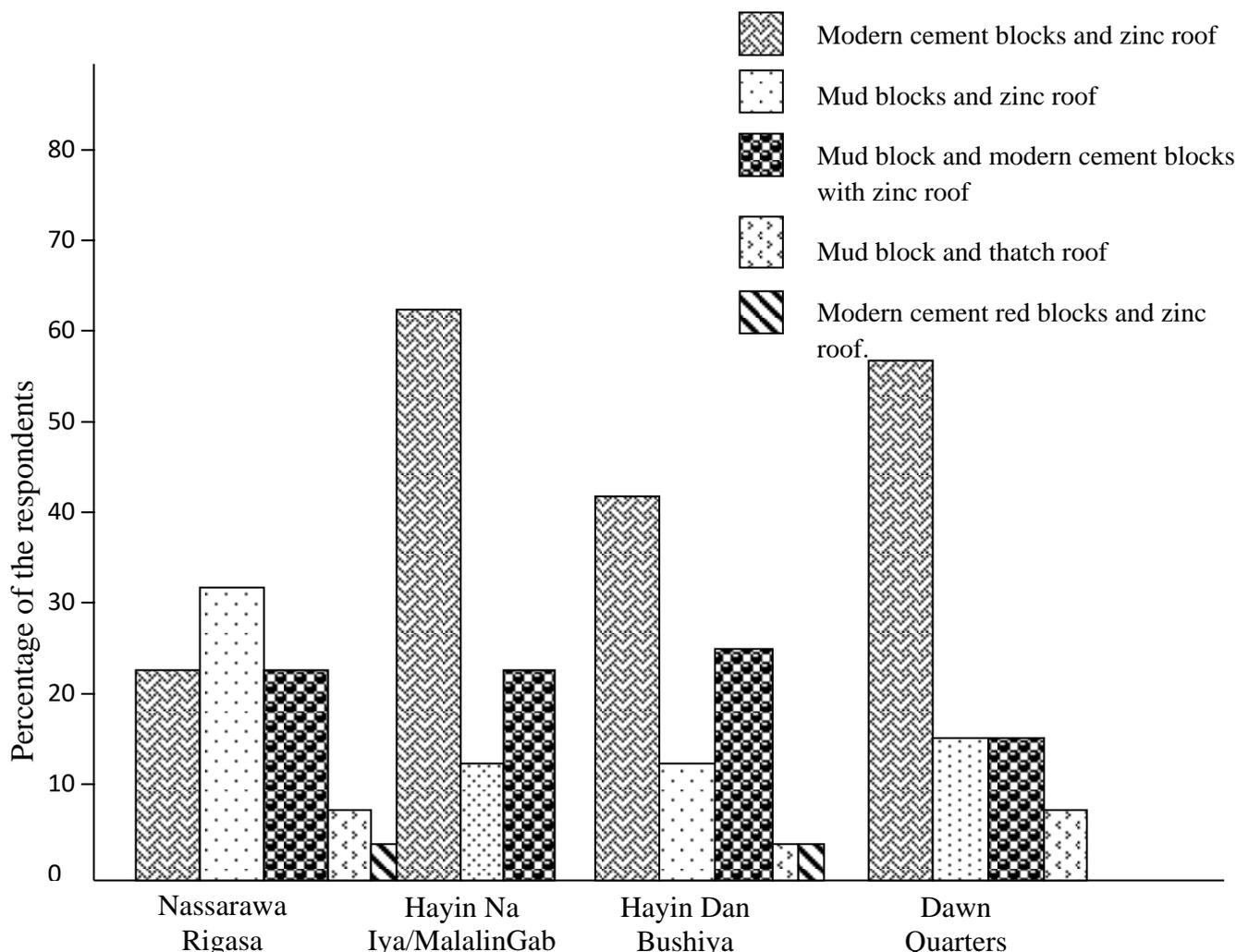
RESULTS AND DISCUSSION

The result is presented using charts SPSS and MS Excel

Nature of Houses

The houses used by the respondents are distinctively different in the four settlements. Figure 1 shows the distribution of houses used by the respondents.

Figure 1: Distribution of the nature of houses used by the respondents



Source: Author's Field Work (2020)

Most of the houses used by the respondent in Nassarawa Rigasa are made up of mud blocks and zinc roof. They formed 40% as the highest percentage. This could be attributed to their income. Respondents in Hayin Na Iya/Malalin Gabas used houses constructed from modern cement blocks and zinc roof as the dominant houses which constituted 64%. This is an indication of the level of income of the respondents. In Hayin Dan Bushiya respondents that occupied modern cement block and zinc roof appeared to be the highest percentage that constituted 52%. For the respondents in Dawn Quarters most of their houses are made up of modern cement block and zinc roof which formed 60%. However, from the four study settlements, it is revealed that houses made up of cement block and zinc roof are the dominant in all the four study settlements with 64% and 52%. This could be attributed to the

level of income and level of education of the respondents. It can also attributed to the durability of houses constructed from cement. Because houses constructed from cement are more stronger and durable compared to the houses constructed from mud blocks. Most of the time these houses constructed from mud blocks when contacted with water they easily dissolve. But house made from cement blocks when contacting water they become stronger enough. A similar study was carried by Grient *et al* (2019) in Soba, Khartoum of Sudan where the findings of the research showed that peri-urban settlements in soba used both mud blocks and modern cement blocks in constructing their houses. Thus, the present research is in line with the findings of the research conducted in Soba of Khartoum because in the present research the nature of houses used by the peri-urban settlements of Kaduna metropolis are composed of modern cement blocks and mud blocks. It is also revealed in the findings of (Peter *et al*, 2017) in Okpoko Anambra State in Nigeria that the peri-urban settlements of Okpoko used modern cement blocks in constructing their houses. Thus, the present research shared some similarities with the Peter’s *et al* findings.

Source of Energy for Lighting and Cooking

The respondents have different ways of sourcing energy for their lighting and cooking activities. Figure 2 shows the distribution o different means of sourcing energy used by the respondents.

Figure 2: Distribution of Source of Energy for Lighting and Cooking

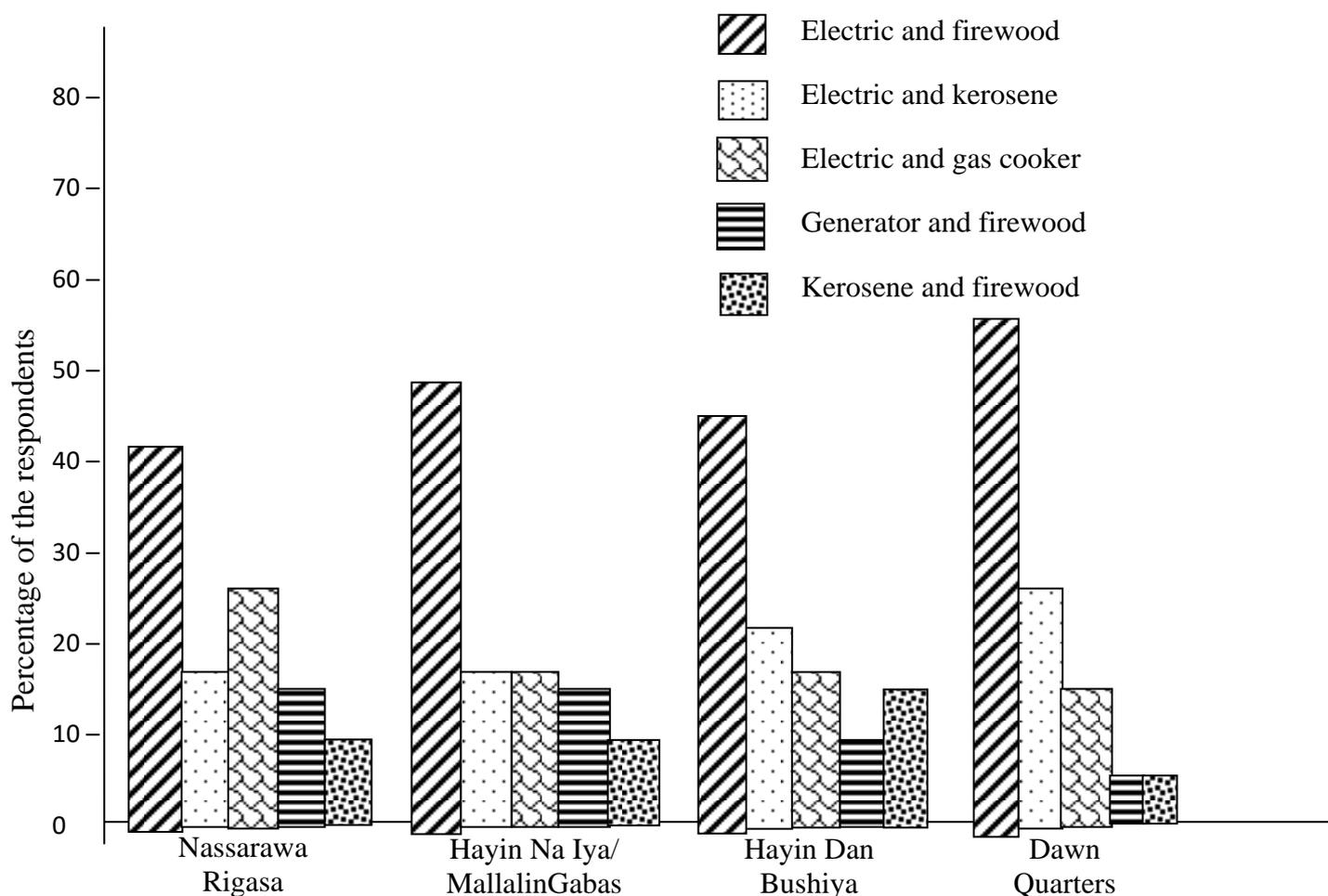


Figure 2: Distribution of Source of Energy for Lighting and Cooking
Source: Author’s Field Work (2020)

The responses were diversified by the respondents in the four settlements. In Nassarawa Rigasa most of the respondents (40%) used electricity and firewood for cooking and lighting. This could be attributed to their closeness to the bushes around them. In Hayin Na Iya/Malalin Gabas it is shown that respondent used electricity and firewood for cooking and lighting which constituted 48%. It can also be attributed to closeness to the source of firewood. For the respondents for those using electricity and firewood in Hayin Dan Bushiya 44% constituted the number of those using electricity and firewood for cooking and lighting. In Dawn Quarters, 56% appeared the highest percentage of the respondents that used electricity and firewood as the main source of energy for lighting and cooking. All these could be attributed closeness the bush, income and cheaper rate of firewood when compared with kerosene or gas cooker.

Types of Toilets Used by the Respondents

Toilet is very vital as far as housing development is concerned, because its absence can cause inconveniences in the daily activities.

Figure 3 indicates the distribution of different forms of toilets used by the respondents.

Figure 3: Distribution of Types of Toilets

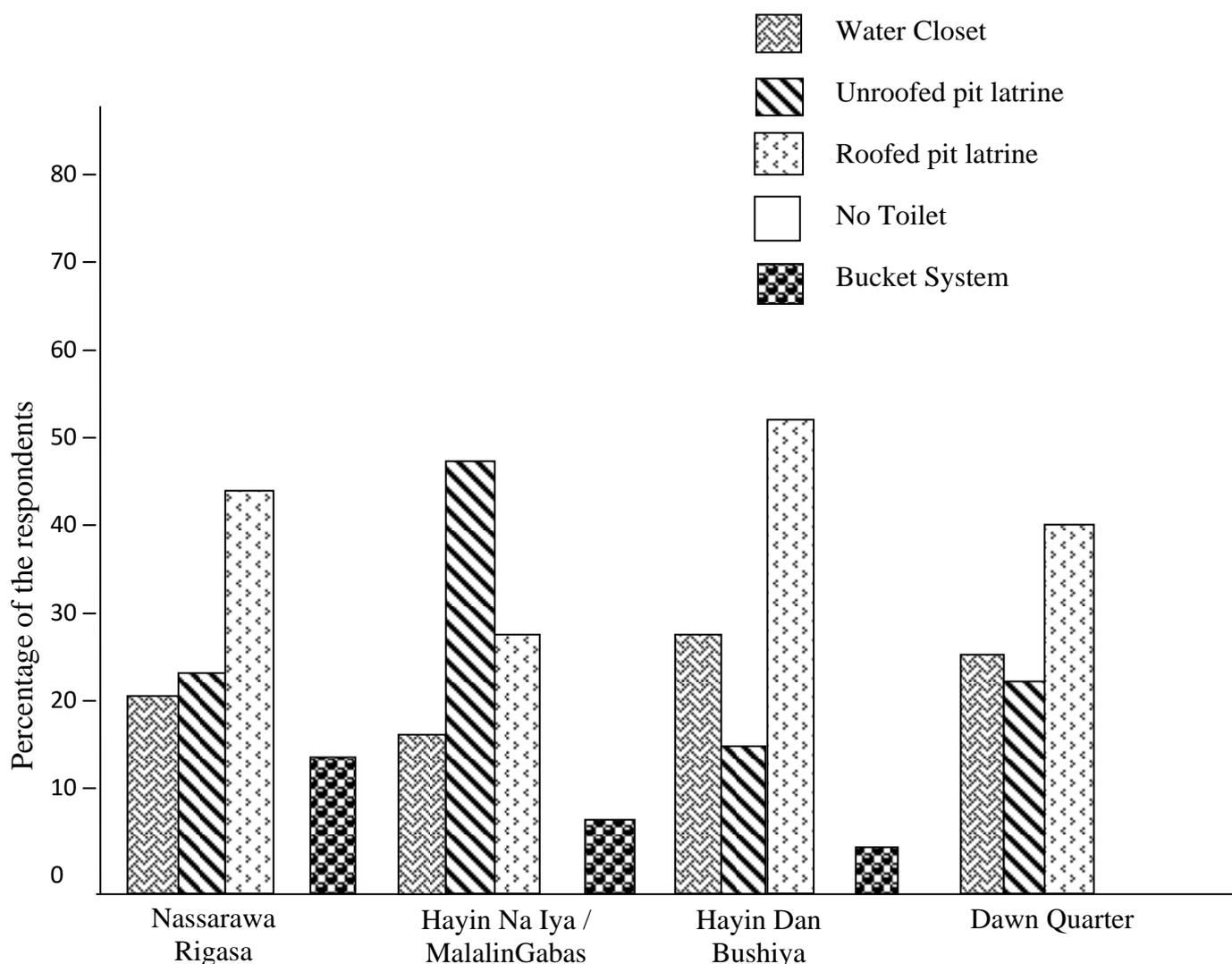


Figure 3: Distribution of Types of Toilets
Source: Author’s Field Work (2020)

The usage of toilets is in different forms from the four settlements. In Nassarawa/Rigasa roofed pit latrine appeared to be the dominant among the other categories. It constituted about 44% of these that use roofed pit latrine. In Hayin Na Iya/MalalinGabas it shows that unroofed pit latrine got the highest number of respondents that use unroofed pit latrine with 48%. The level of their income could be the attributed factors that determine the usage of their toilets. As in the case of responses in Hayin Dan Bushiya 52% emerged as the highest percentage of the houses that use roofed pit latrine. However, settlements of Dawn Quarter just like other settlements majority of the houses were inclined to the usage of roofed pit latrine. It constituted about 40% of those using roofed pit latrine. However, in all the four settlements, it is revealed that despite the fact that there are other forms of toilets but roofed pit latrine apparently dominated all the four settlements in the study area. This could be attributed to income and the location of the settlement. A similar study was conducted by Fulong et al (2013) in peri-urban Tangialing in Beijing/China, their findings showed that apartment with rooms of 10 square meters and 20 square meters were constructed with kitchen and toilets in form of water closet.

Methods of Refuse Disposal

The disposal of refuse is inevitable in any community because of its harmful effects on the personal hygiene.

Figure 4 Shows refuse disposal

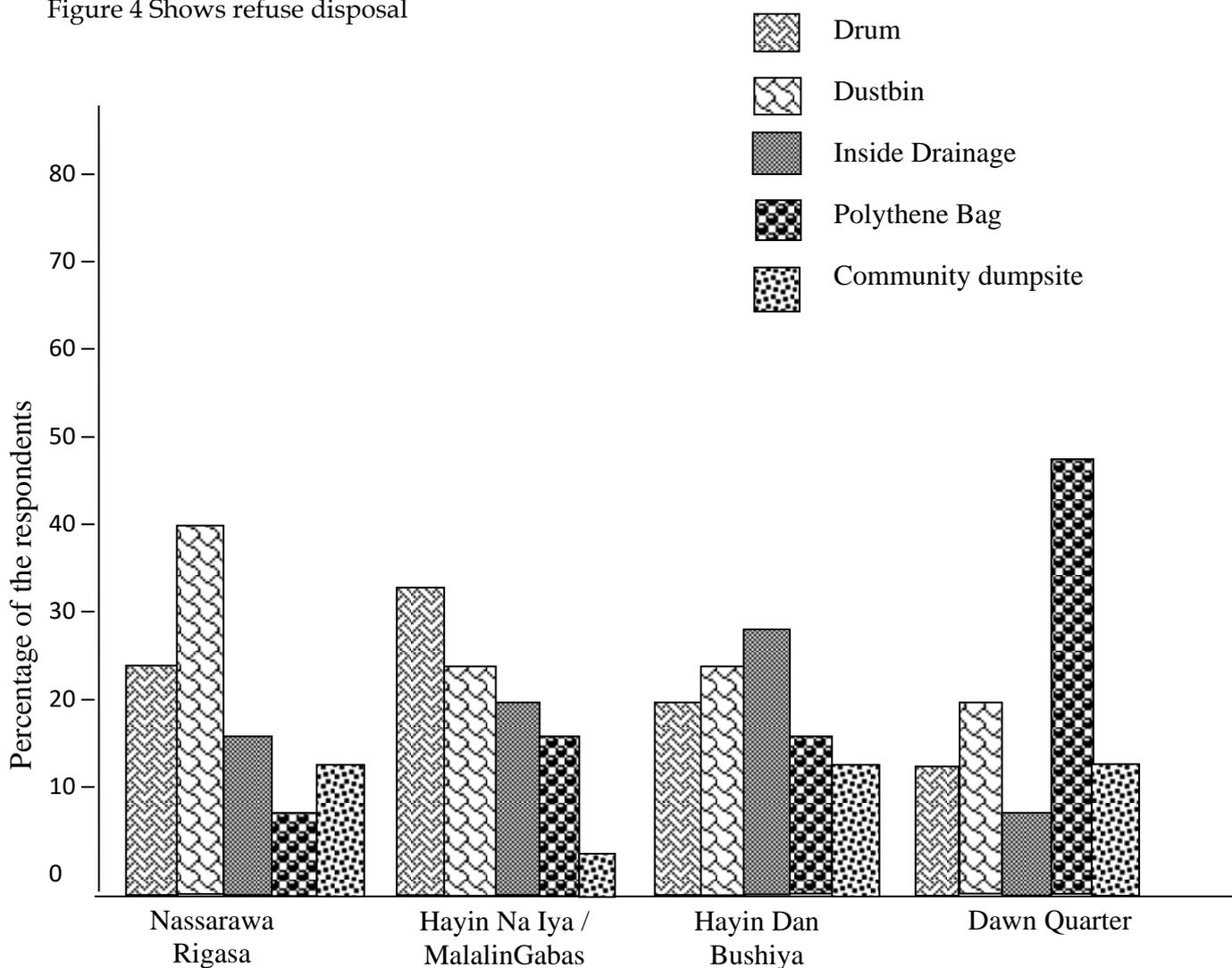


Figure 4: Methods of Refuse Disposal
Source: Author’s Field Work (2020)

The refuse disposal differ from one settlement to another. In Nassarawa Rigasa the major means of refuse disposal is through the use of dustbin. This accounts for about 40% of the respondents. This could be attributable to the location of the settlement from the city centre. In Hayin Na Iya/Malalin Gabas there was more inclination to the use of drum for refuse disposal. It constituted about 32% of the respondents that inclined to the drum method of refuse disposal. Inside drainage method of refuse disposal formed 28% as the highest percentage for refuse disposal in the settlement. This showed that respondents preferred to dispose their refuse inside the nearby drainage around them. This could be attributed to their closeness to either moving streams or rivers around their settlements. Respondents in Dawn Quarters preferred to dispose their refuse through the use of polythene bag. Therefore, most of the respondents (48%) adopted this method of refuse disposal. This could be attributed to their closeness to the industries around them. However, with these different means of refuse disposals the use of polythene bag and dustbin could be considered as the most efficient means of refuse disposal. This is because at anytime they can be evacuated for disposal to the appropriate place. It is revealed that in Okpoko Anambra State Nigeria, that 67.5% of the residents of this peri-urban settlement dump their refuse in the open air as a means of refuse disposal (Peter *et.al*, 2017).

CONCLUSION

Peri-urban areas are areas undergoing different kinds of transformation both social, economic and spatial reconstruction. This results into different forms of structures and settlements. The study examines the characterization of housing condition in peri-urban areas of Kaduna metropolis, Nigeria. The major findings of the study are that despite the differences in the nature of the houses in peri-urban areas of Kaduna metropolis, most of the houses are constructed with modern cement blocks and zinc roof (64%). It is also revealed that the major source of lighting and cooking in the peri-urban settlements is electricity and firewood (56%). Furthermore, the study revealed that the peri-urbanities used different forms of toilets where roofed pit latrine emerged as the major type of toilet used by the respondents in their houses (52%). Additionally, there were different means of refuse disposal in the four settlements, but the use of polythene bag and dustbin were the major methods of refuse disposal forming 48% and 40% respectively. In light of the above findings recommendations are offered, authorities concerned such as Kaduna state urban Development Authority (KASUPDA) should not relent their efforts in the proper management and administration of housing constructions in the peri-urban areas. There should be adequate provision of sources of energy to the peri-urban areas by the authorities concerned. The health authorities have their role to play in checking how toilets are constructed and used in the peri-urban areas. Finally on the issue of refuse disposal the ministry of environment and other related agencies should put their eyes on the disposal of refuse in the peri-urban areas because where they are miss used it can lead to the spread of some diseases.

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