

Demographic and Socioeconomic Characteristics of Livestock Rearers in Maiduguri Metropolis, Borno State Nigeria

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Abstract

This study analyzed the socioeconomic and demographic characteristics of livestock rearers in Maiduguri metropolis, Borno State, Nigeria. To give effect to the study, three hundred and forty-six livestock rearers were randomly selected from all the administrative districts of the metropolis. A two-stage sampling procedure was used in the collection of primary data in Maiduguri metropolis. The first stage involved selection of respondents/livestock rearers from each of the communities using the snowball sampling method with probability proportionate to the size of each community. The second stage involved random selection of the districts in order to have all encompassing study sites. Data collected through interview schedules were statistically tested and found to be significant. Results show that livestock rearing is a male dominated practice and account for 73.4% of the respondents and mostly within the age bracket of 20-49 years. It is common among households with 5-7 members. Most of the rearers have attained tertiary education level. Livestock rearing is basically a secondary occupation in Maiduguri. The Kanuri people account for a large percentage of the livestock rearers in the state. Sheep are the most preferred livestock by the rearers and mostly purchased from the open market. It is a viable economic activity that needs to be supported by various financial bodies, both governmental and non-governmental.

Keywords: Borno State, Demographic, Livestock rearers, Maiduguri metropolis and Socio-economic characteristics.

Introduction

Livestock rearing is basically a rural economy but due to the prevailing economic meltdown urban centres are gradually assuming the function of the rural areas especially in agriculture. Agricultural activity taking place in urban areas is termed “Urban agriculture”. The United Nations Development Program (UNDP) defines Urban Agriculture (UA) “as the industry that produces, processes and markets food and fuel, largely in response to the daily demand of consumers within a town, city, or metropolis, on land and water dispersed throughout the urban and peri urban area, applying intensive production methods, using and reusing natural resources and urban waste, to yield a diversity of crops and livestock.” Livestock rearing in urban areas therefore provides

succor to people at different levels of income. It is argued that it provides good access to food for the poorest of the poor, source of income and good quality food at low cost for the stable poor, avenue for savings and dividends on their investment for the middle income families, and for the small and large entrepreneur, it is generally profitable business. Despite the benefits of livestock rearing in an urban area, yet, it is still perceived as short term and inappropriate economic activity due to its inappropriateness and short temporal span. It is a perforce, intensive, making the best use of available space to meet the awaiting market and are oriented to close urban market. Proximity to the market had made urban livestock rearers to engage in rearing of livestock at vacant space. Livestock are usually reared in urban space in a confined location with little room for movement. The economic benefits of urban livestock rearing are countless. The demographic and socioeconomic characteristics of the rearers in Maiduguri metropolis is analysed to portray its potentials.

Problem statements

Livestock is one of the fastest growing agricultural subsectors in developing countries accounting for 33% of Gross Domestic Product (GDP) with prospects of further increase (FAOSTAT, 2013). This expansion of the practice is propelled by fast demand for livestock products; it is speed up by population growth, urbanization and increasing incomes. This has been the case in Africa, particularly Sub-Saharan Africa. In the Northern part of Nigeria, environmental factors support a long-standing tradition of pastoral rearing and this practice comes with an attendant problem. The need to promote a culture of urban livestock rearing is even more imperative as large parts of the population are imbibing the culture of livestock keeping. The case of Maiduguri, the Borno State capital is no less a difference. With a population density of 5,539 persons per square kilometre in 2015, reconnaissance survey for this study found out that Maiduguri Metropolis has limited space for livestock rearing, however, it was observed that several families in the metropolis engage in livestock rearing, with all its associated challenges such as traffic hold ups along major streets. It was also realized that the misunderstanding of various types does erupt between livestock owners and adjacent occupants.

One still wonders whether the increasing urban livestock rearing among urban dwellers is informed only by economic factors like the demand for livestock products or it involves a change in urban consumption pattern and lifestyles or environmental factors. This investigation is going to reveal specifically the ones that relate to the current trend of urban livestock rearing in Maiduguri metropolis. Civilization and development of urban agriculture, particularly urban livestock rearing move in an alternative manner, creating many innovative ways of food production and management of available resources. This study bridged this research gap by unveiling the socioeconomic and demographic characteristics of urban livestock rearers in Maiduguri, for a sustainable development of the sector.

Objective of the Study

The broad objective of this study is to examine the practice and impact of urban livestock rearing in Maiduguri Metropolis, Borno State, Nigeria. The specific objectives among others include to describe the demographic and socioeconomic characteristics of those engaged in urban livestock rearing.

Materials and Methods

Description of Study Area

The study area is Maiduguri, the capital of Borno State. It comprises of the twin towns of Yerwa and Maiduwuri, covering an area of 208 km², and is located between Latitudes 11°46'18" N to 11°53'21" N and Longitudes 13°03'23" E to 13°14'19" E.

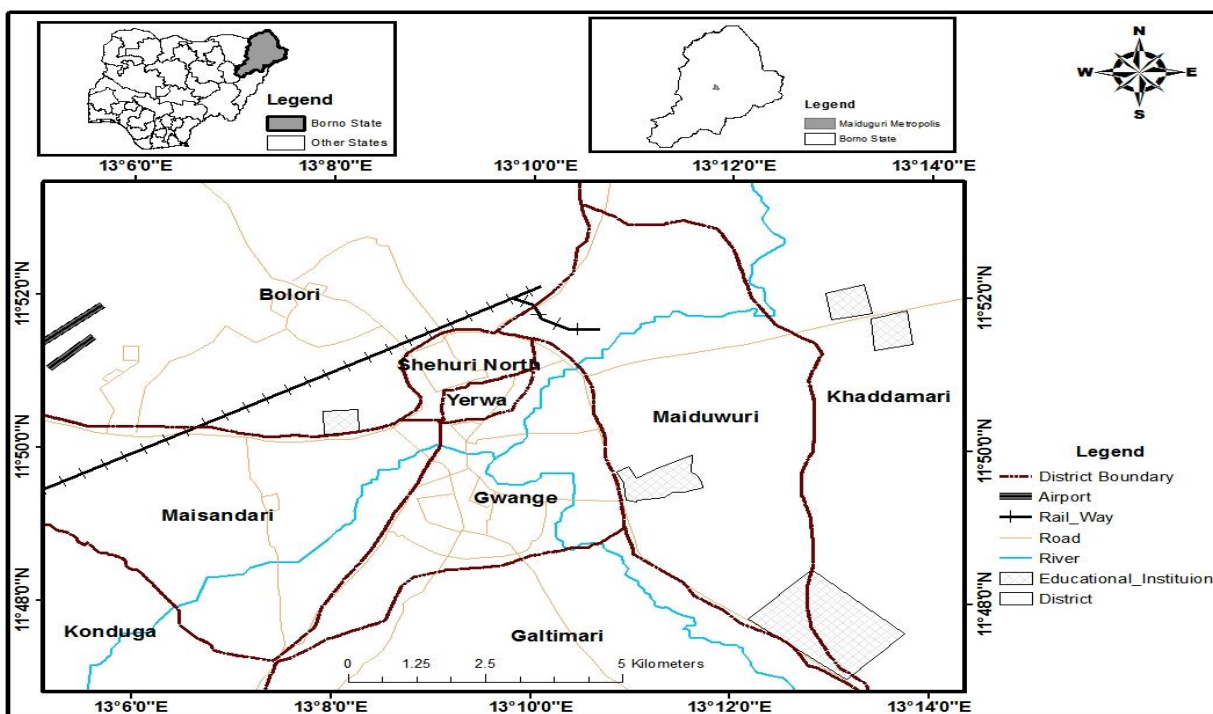


Figure 3.1 Maiduguri Metropolis showing the districts.

Source: Department of Geography, Usmanu Danfodiyo University, Sokoto.

Based on a projection of the 2006 population census, the area had a population of 1.2 million people as at 2014 National Population Commission (NPC, 2015). It shares boundary with Konduga Local Government Area (LGA) in the West, Jere LGA in the East and North respectively. The metropolis is divided into seven (7) administrative districts (Waziri, 2012). These are Bolori, Gwange, Galtimari, Maisandari, Maiduwuri, Shehuri

North, and Yerwa. Yerwa and Gwange which are considered as high-density residential area; Shehuri North is a medium density area and Bolori, Galtimari, Maisandari and Maiduwuri are said to be low-density area (Waziri, 2012). New residential quarters are also springing up at all the cardinal points of the metropolis. These include among others settlements like Bakassi, Murumti, Gawo Mai Lalle, Fo'ori, Kuseri and Goni Kachallari. The study area is fairly good for crop cultivation as such agricultural activities of various types thrive in and around the area. Cereals such as millet and guinea corn are grown; legumes of various types are also cultivated on an annual basis by rain fed agriculture. Agricultural practices are generally intensive using chemical fertilizer and organic manure, the latter is derived mainly from livestock and domestic waste. Livestock rearing are kept in every household as such, it is gaining prominence in recent time. Other economic activities are mainly artisan, tailoring and weaving, and a long list of trade women engage in.

According to Fannami and Muazu (2012), it is not a prestige to own livestock by urban dwellers and the keeping of goats in particular is despised and are owned mainly by women. The term *malumshi* (shepherd or herdsman) refers to the downtrodden members in Maiduguri who engage in goat rearing.

Study Site Selection: The study was carried out in the Maiduguri metropolitan area of Borno State, Nigeria. Maiduguri was chosen because of its heterogeneous ethnic composition. Site selection was done by displaying coordinates of the population of each ward in the Microsoft Excel package. This was followed by the allocation of random numbers to the coordinates, after which a serial sorting was carried out and the required sample size for each ward was taken from the sorted coordinates.

A reconnaissance survey was first undertaken to all the thirty-two (32) administrative wards of the study area to come up with a sample frame. A reconnaissance survey of the study area was conducted to facilitate an overview of the study area and dominant types of livestock species in the area. During the reconnaissance visit, ethical permission was sought from ward heads and the study mission was explained. Multistage sampling methods were used in reaching the respondents. Snowball sampling method was used to select the livestock rearing households in all the wards of the area to generate the sample frame. The unique characteristics of livestock rearers that distinguish them from the non-rearing households have also helped in locating livestock rearing households. Snowball method was used for easy identification of next livestock rearing household from the initial ones with the first interviewee serving as permission to the subsequent ones. In each of the district, computer assisted randomly picked respondents were reached with the aid of a household random number and interviewed.

After the reconnaissance survey, a pilot survey was carried out to test the instrument of the study (interview schedule) before the field survey was carried out. Copies of interview schedules were administered to livestock rearers through accidental sampling.

The outcome of the pilot survey helped the study in two ways: (i) redesign the study instrument from an initial little technical to more plausible one, and (ii) provide insight on how to track down the respondents. It was during the pilot survey that the final decision was taken to use a multi-stage sampling technique.

The data collected from the respondents were compiled, edited and coded to ensure that all obvious errors were corrected by revisiting the specific areas and respondents. The coding of the interview schedule was done using Microsoft Excel package in conjunction with the Statistical Package for Social Sciences (SPSS)/ Predictive Analytics Software (PASW) version 20.0. All the field data were screened with the Chi-square of fitness tool to ascertain whether the samples collected truly represent the study population. In addition, linear regression was used to determine whether livestock rearing has contributed significantly to the income of the livestock rearers or not.

Findings of the Study

Table 1 Demographic and Socioeconomic characteristics of urban livestock rearers

Variable	Frequency	Percent (%)
Gender of Respondents		
Male	254	73.4
Female	92	26.6
Total	346	100
Age of respondents		
10-19	13	4
20-29	134	39
30-39	120	34
40-49	45	13
50-59	28	8
60-69	6	2
Total	346	100
Household size		
Less than 2	6	2
2-4	55	16
5-7	137	40
8-10	107	30
11-13	34	10
14 and above	7	2
Total	346	100
Educational Attainment		
Non Formal	24	7
Primary	19	5
Secondary	142	41
Tertiary	161	47
Total	346	100
Ethnic group		
Kanuri	126	36.4
Babur Bura	36	10.4
Fulani	34	9.8
Hausa	33	9.5
Other languages of the state(Glavda,Maffa etc)	30	8.7
Marghi	27	7.8
Other North-eastern language(Ngizim,T,Bolewa etc)	22	6.4

Other Nigerian Languages(Tiv,Igbo,Yoruba etc)	22	6.4
Shuwa	15	4.3
Foreign language(Bagirmi, kotoko etc)	1	.3
Total	346	100
Duration in livestock rearing		
Less than 10 years	267	77
11-20	69	20
21-30	7	2
31-40	3	.9
Total	346	100
Mode of livestock acquisition		
Inherited	19	5.5
Purchased	325	94.2
Kept in trust	1	.3
Total	346	100
Preferred livestock		
Cattle	29	8.4
Sheep	158	45.7
Goats	91	26.3
Cattle and Sheep	10	2.9
Sheep and Goats	30	8.7
Cattle and Goats	2	.6
All three livestock	26	7.5
Total	346	100

Source: Field Survey, 2016

Result of the Findings

Table 1 shows that 73.4% of the respondents are males. The few women engaged in the practice are aged, divorcees or widows. This finding supports the work of Berihu and Tamir (2015) in Ethiopia where out of the 35 farmers sampled in Addis Ababa, 97.1% were males. The frequency of respondents' age shows that the age group of 20-49 years account for 86% of the respondents. This by extension implies that most of those engaged in urban livestock rearing are fairly young people below the age of 50 years. This finding corresponds with the International Labour Organisation's (ILO) definition of the productive age group as between 16 and 60 years in any economy.

The findings of the study as presented in Table 1 reveals that the most common household or family size are those with 5-7 members. Urban households engaged in rearing of livestock in the metropolis are the ones constituted by average members and neither the nuclear nor extreme extended type. The finding is not in agreement with the work of Ogunjimi *et al* (2012) and Fualefac *et al* (2014). Ogunjimi *et al* (2012) found that family with a small size tends to be more involved in livestock rearing.

Maiduguri being an urban area is made up of heterogeneous populations. Most of the inhabitants engage in non-agricultural activities as their means of livelihood. Table 1 shows that 47 % of the respondents have attained tertiary education level. The primary occupations of the respondents were investigated to ascertain whether livestock rearing forms the primary or secondary occupation. The figure below shows the percentage distribution of the primary occupation of the respondents.

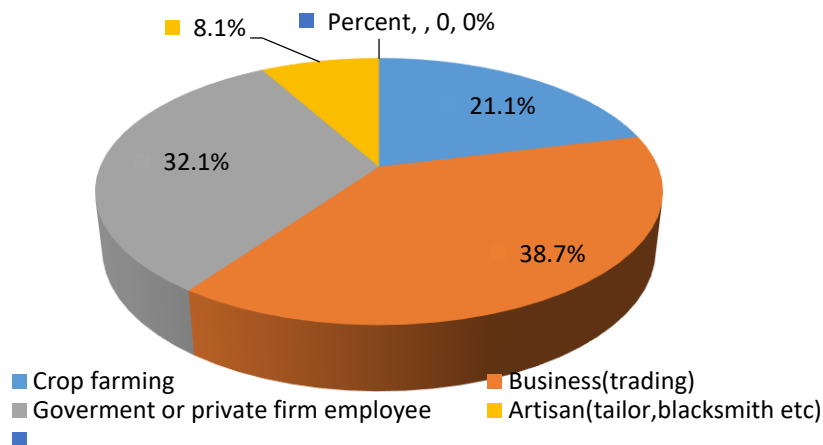


Figure 2 Primary Occupations of Livestock Rearers.
Source: Field survey, 2016.

Figure 2 reveals that 38.7% of the respondents engage in business such as trading as their major source of income. 32.1% are primarily civil servants. 21.1% are crop farmers while 8.1% are artisans such as tailors. For all categories, urban livestock rearing is considered as a secondary occupation. This corroborates the submission of Ango, Abdullahi, and Abubakar (2011) who equally reported that a majority (77%) of the livestock rearers in Birnin Kebbi are into full intensive crop farming, 13% are civil servants practicing urban agriculture, 6% are traders practicing urban farming, and 4% of the respondents are hired laborers for urban farmers.

Available historical records indicate that the Fulani and the Shuwa Arab are the two ethnic groups associated with livestock rearing. However, there has been a shift in the ownership of livestock in the urban areas in recent times. The aforementioned ethnic groups are now outnumbered by the Kanuri. The findings of the study (Table 1) revealed that the Kanuri accounts for 36.4% of those engaged in livestock rearing in the metropolis. The larger number of the Kanuris in livestock rearing could be explained by the fact that they are the first settlers in the city and it is expected that they dominate all economic activities. The Kanuri clans (Bodawi and Kwoyam) are those mostly engaged in rearing of livestock. The Babur Bura account for 10.4% of the total livestock rearing households interviewed. The salient feature discovered by this study is the few Shuwa ethnic groups in rearing of livestock in the metropolis. Their preference for natural pasture as a basic feeds than dry ones has limited their activities in the urban centre. The diverse ethnic composition of livestock rearers in the metropolis conforms with that of Tchoumboue, Mingoas Kilekoug , Nyoungui, and Toukala (2014), who revealed that many cattle breeders in Vina division of Cameroon were from the *Peulh* and *Mbororo*'s ethnic groups and they are original settlers of the region.

The result of the study as in Table 1 reveals that sheep accounts for 45.7% of the livestock reared in the city. Large numbers of sheep are kept in the metropolis. This may probably be because of the fact it is often used for most ceremonies such as naming, marriages and Sallah celebrations. The movement of sheep can be contained with less economic damages unlike goats which are nasty in terms of behaviour. Another reason could be the fact cattle consume a lot of feeds and could be expensive. This finding agrees with Tindano, Moula, Traoré, Leroy, and Antoine-Moussiaux (2015) submission that sheep is the most preferred species and is integrated mainly to other agricultural activities and other livestock management. Goats and cattle jointly account for the remaining 54.3%. Table 1 shows that 94.2% of the respondents got their livestock through purchase. The amount paid for this purchase depends largely on the breed and quality of livestock as well as the bargaining power of the buyer. Middle men as observed are active in the bidding process. This is in consonant with the assertion by Ingram (2011) who stated that externalities such as middle men activities affect the prices of livestock, inputs and products and affect what could have been the true costs of livestock purchased.

Conclusion

This study has investigated the socioeconomic and demographic characteristics of livestock rearers in Maiduguri metropolis, Borno State, Nigeria. The findings of the study reveal that livestock rearing in the metropolis is economically beneficial to the rearers and to those employed and trained in the management of the livestock. It is basically a secondary occupation and helps in augmenting their income with the sales from these livestock. This enables them to provide the basic needs of their families and maintain their urban lifestyles. Livestock rearing also keeps them going even when salaries are delayed or their businesses are experiencing low patronage.

Recommendations

The following recommendations are made based on the findings of the study.

- i. As large numbers of the productive age are involved in the practice, there is the need to train youth in modern livestock management. This could be achieved by enrolling them into schemes such as N-Agric which is a component of N-power. This will require a very strong framework of testable ideas within which to collect information pertaining to the livestock rearing/environment.
- ii. There is the need to come up with researches that will identify the salient parameters and the linkages that exist within the urban system as these are critical in determining feed availability. This should start with the gazetting of the feed producing areas so that their current status in terms of area and forage production potentials can be ascertained.
- iii. The study area should adopt programs and policies that will encourage improved modern livestock rearing and animal production techniques. Ranching is a good method that needs to be adopted. This will halt straying or herding on open streets and

refuse dumps. It will further control free traffic flow and the spread of zoonotic diseases in the area.

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