

**ASSESSMENT OF THE LEVEL OF PRODUCTIVITY,
COMMERCIALIZATION AND RESILIENCE IN THE LIVESTOCK
PRODUCTION IN BAUCHI STATE**

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ABSTRACT

This study assessed the level of productivity, commercialization and resilience in the livestock production in Bauchi State, the study adopted a survey research design, this design allows the researcher to narrow the study to three communities (i) Sullubawa (ii) Gamawa and (iii) Ningi respectively where livestock production is the main activities of the people. The study population is 496, 501 from which a sample size of 341 sample size was drawn using Krejcie Morgan's formula statistics of determining sampling size, questionnaire instrument was used for data collection, while key informant interview was conducted with Ten (10) critical stakeholders (2 Crop farmers, 3 Livestock farmer, 3 Traditional leaders and 2 LGA staff). The quantitative data collected was analysed using descriptive statistics while thematic content analysis was used to analyse the interview data collected. The study revealed that majority of the respondents believed that livestock production is on the decline. This was further buttressed by the key informant interview conducted in the study. The informant drew their views from various factors which include security challenges, cattle rustling and poor access to land resources like land and water in Bauchi State. The study also revealed that livestock production is moderately commercialized in Bauchi State, Nigeria. the key informants interviewed believed that livestock production has not been fully commercialized due to reasons bothering on poor knowledge, high interests' rates on loans and slow government interventions in Bauchi State. And finally, the study revealed that cattle, sheep and goat are the most dominant livestock produced in Bauchi State during this study. This was further clarified by the key informants. The interview section revealed that livestock farmers in Bauchi State are interested in farming cattle, sheep and goat because the market for those livestock supersede others and the value chain involved is high. Thus, the study concluded that there is an improvement in the animal husbandry in Bauchi state. In view of the foregoing this study recommends that government should expand all efforts geared towards addressing the sociological issues that is influencing security challenges in Bauchi State while enhancing the capacity of local institutions such as state ministry of Agriculture and rural development via continuous training, infrastructural upgrades, innovation and other related extension services to improve the declining level of livestock production in Bauchi state, Nigeria. it also recommends that government should intensify efforts at improving livestock farmers access to long term financial services like soft loan, and grants for small and medium scale farmers. This can be supported by capacity building for the farmers and improve market infrastructure like roads, storage facilities and prompt market information system. It further recommends that government should employ and train more extension workers to build farmers capacity on how to improve the value chain on

cattle, sheep and goat farming in Bauchi State in order to improve animal husbandry and improve productivity and commercialization in the state.

Keywords: Commercialization, Livestock, Productivity, & Resilience

1.0 INTRODUCTION

The World today is witnessing a new economic and social change, which put the entire Global economy on tight rope towards survival given the ravaging trends in climate change and global warming leading to food crises in developing nations in Europe, Asia, Latin America and Africa and more so in Nigeria; alarmed by the threats to food and environmental safety, the Nigerian government have continue to grapple with so many uncertainties from multiple directions that prioritizing interventions and holding a straight course prove a daunting task. According to Food and Agricultural Organization (FAO), (2019) population growth, urbanization, smart technological innovations and adoptions, has increased the movements of people and goods, not to mention climate change, has thoroughly transform food production Nigeria, in ways that are often unpredictable. Hence the effort to improve the annual animal production to match with the current reality of food need among the population is challenging in recent years (FAO, 202).

For instance, in Bauchi state, livestock production is dominated by ruminants (cattle, sheep, and goats) and poultry, with a growing focus on commercialization. Livestock farming plays a significant role in the state's economy, contributing to food security and income generation since the early days of human settlement in the area now known as Bauchi state (Gabrial, 2024). While traditionally small-scale livestock farming has persisted, there's increasing interest in commercialization, driven by market demands and potential for profitability (Oche, 2024). Cattle, sheep, and goats are the primary livestock species raised in Bauchi State. Goats, in particular, are popular due to their adaptability and ease of management while poultry farming is also significant, with a growing emphasis on broiler chickens for meat production (Gefu, 2020). Thus, the livestock sub-sector has remained an essential and integral component of Nigeria's agriculture and is a significant source of household income, food security, and overall agricultural sector GDP contribution on account of the different livestock species production, productivity, and Value Chain diversity across the country's landscape. Consequently, the World Bank is assisting the government of Nigeria to implement the Livestock Productivity and Resilience Support (L-PRES) to improve productivity, resilience, and commercialization capacities of producers and processors in selected livestock value chains; and strengthens institutional capacity in service delivery across the country. however, while this effort is gaining recognition across the country, livestock production and commercialization in Bauchi state is still lagging behind,

1.1 Statement of Problem

Nigeria population is anticipated to reach almost 400 million in 2050, vis-à-vis 220 million today, while the size of the economy is expected to grow more than six-fold. Such a pace of change is unparalleled in the country's history. Along this transformative process, the demand for animal source foods will exponentially increase and livestock will likely become the most important sector of agriculture (Maidala, Abdullahi, Lawan, Abdullahi, Chana, & Makinde,

2019). Consequently, while food need expand across the northern states most affected by climate change, access, utilization and consumption of food has continued to decline given the spread of security threats to the lives of farmers and livestock across Bauchi State. Nicoletti and Termine (2023) observed that livestock farming plays a vital role in human and national development of any nation. Apart from providing food security, the sector provides employment opportunity and contributes to the country's financial system. Unfortunately, the sector is plagued with myriads of problems that have prevented it from performing at its best. Thus, Adebayo, Kadiri, and Dairo, (2019) argued that livestock farming in Bauchi state is characterized by widespread dependence on subsistence farming, constrained access to modern technology and low productivity, despite having one of the most important cattle populations in the sub-Saharan Africa, Nigeria's contribution to global livestock breeding and export remain modest. The farming is mostly dominated by smallholder farmers, who are faced with diverse demanding situations in terms of infrastructure, access to credit facilities, animal health, and a susceptible coverage, and regulatory framework. The excessive cost of feed and different input is another issue that has impacted livestock production in Nigeria (Adebayo, Kadiri, and Dairo (2019); Fakya and Ewuola (2020)). There are myriad of challenges affecting livestock production ranging from shrinking grazing routes, shortage of water, proliferation of artisanal mining and poisoning of livestock, high cost of securing land, cattle rustling and insurgency. While these threats influence livestock production across the state, there are still paucity of empirical studies on the subject matter in communities like Sullubawa, Gamawa and Ningi where livestock production is relatively high in Bauchi State. In spite the challenges to livestock production in the state, there is relatively low empirical studies targeted at the impact of livestock commercialized production and resilience in Bauchi state. It is in view of the foregoing that this study has examined the level of productivity, commercialization and resilience in the livestock production in some selected communities in Bauchi State, Nigeria

1.2 Research Questions

The following questions will guide the study:

- i. What is the level of livestock productivity in the selected communities in Bauchi State?
- ii. What is the level of commercialization of livestock production in the selected communities in Bauchi State?
- iii. How resilient is the livestock farming in the selected communities in Bauchi State?

1.3 Objective of the Study

The main objective of this study is to assess the level of productivity, commercialization and resilience in the livestock sector in Bauchi State.

- i. To assess the level of livestock productivity in the selected communities in Bauchi State
- ii. To ascertain the level of commercialization of livestock production in the selected communities in Bauchi State
- iii. To determine the level of livestock resilience in the selected communities in Bauchi State

1.4 Research Methodology

The study adopted a survey research design, this design allows the researcher to narrowed the study to three communities (i)Sullubawa (ii) Gamawa and (iii) Ningi respectively where livestock production is the main activities of the people. The study population is 496, 501 from which a sample size of 341 sample size was drawn using Krejcie Morgan’s formula statistics of determining sampling size, questionnaire instrument was used for data collection, while key informant interview was conducted with Ten (10) critical stakeholders (2 Crop farmers, 3 Livestock farmer, 3 Traditional leaders and 2 LGA staff). The quantitative data collected was analysed using descriptive statistics while thematic content analysis was used to analyse the interview data collected however, all ethical standards were promptly observed during the data collection and process hence, no human or livestock live(s) was put on threat.

2.0 DATA PRESENTATION

Table 1 Respondents’ Socio-demographic Characteristics

Variable	Scale	Frequency	Percent
Age	18-27	69	17.9
	28-37	105	27.2
	38-47	81	21.0
	48+	131	33.9
		377	100
Gender	Scale	Frequency	Percent
	Male	202	52.3
	Female	173	47.7
		377	100
Educational Attainment	Scale	Frequency	Percent
	Primary	63	16.6
	Secondary	131	33.9
	Tertiary	112	31.6
	Professional	69	17.9
		377	100
Marital Status	Scale	Frequency	Percent
	Single	73	19.2
	Married	229	61.9
	Divorced	41	10.6
	Widowed	32	8.3
		377	100
Religion	Scale	Frequency	Percent
	Christianity	95	24.9
	Islam	190	51.8
	Traditional	90	23.3
		377	100
Income range	Scale	Frequency	Percent
	N30,000 – N60,000	117	30.6

	N90,000 - N120,000	152	42.0
	N140,000 - N1170,000	51	13.2
	N200,000 - N230,000	19	4.9
	N260,000 & Above	36	9.3
		377	100

Source: Field survey 2025.

Table 4.1 provides a detailed breakdown of the socio-demographic characteristics of the 341 respondents involved in the study. The table shows that majority of respondents (33%) fall within the age range of 25-34 years. This indicates that most participants are in their economically active years, which is critical for understanding the impact of livestock production. The analysis result indicated that 59% of the participant are male and 41% female respondents. This reflects a predominantly male demographic, which is consistent with the occupational activities in the region. The educational distribution shows that a majority of respondents (51%) have attained higher education, while 34% have completed secondary education. The high percentage of respondents with secondary and higher education suggests a relatively educated population, with reasonable knowledge on livestock production. Among the respondents, the largest occupational group comprises crop farmers (28%), followed closely by fishermen (26%). Traders account for 22%, and security personnel account for 10% and 11%, respectively.

Table 2: Responses distributions on the level of livestock productivities in Bauchi State

Response Option	Frequency (n)	Percentage (%)
Decreasing	267	76.9%
Increase	80	23.1%
Total	347	100%

Source: Field survey 2025.

Table 2 shows that majority (76.9%) of the respondents indicated that livestock production has reduced in Bauchi State. This reflects public perception that inadequate administrative infrastructure, limited reach of extension services, and security challenges. Meanwhile, 80 respondents (23.1%) indicated that livestock production is on the increase in Bauchi State. From the foregoing it can be concluded that majority of the respondents believed that livestock production is on the decline.

A key informant indicated that:

Indeed, there is a decline in livestock production in Bauchi and by extension in Borno and Yobe given the expansion of cattle rustling and myriad of security challenges across the northeast states in Nigeria (KII/Crop Farmer/Male/Bauchi/2025).

Another Key Informant observed that:

There plenty reasons why we I would support the assertion that livestock production is declining, in the past people own cattle, goat and sheep for subsistent purposes and these animals are safe and they roam the street in search of food where the owners cannot ranch them. Unfortunately, livestock ranching is now dangerous with bandits tracking the livestock to rustle. In addition, the encroachment of residential buildings has reduced the spaces available for livestock farming, the threat to livestock is enormous hence the decline from my person points of understanding (KII/Female/resident/Bauchi/2025).

An interviewee said:

I think there is an increase in livestock production given the Federal government and other critical stakeholders interventions in the farming. For me I think, the challenge is the population expansion and the ever-increasing demand for meat, milk and hide for industrial uses. Prior to this day, raw meats and other dairy products are being imported into the country to supplement the livestock production in the country but in recent years, the Nigerian borders are closed up for importation of those items, this account for the increase in process of livestock and inflation in the country (KII/Livestock-farmer/Male/Bauchi/2025).

One of the key informants further added that:

We should also consider the influx bandits and Boko-haram attacks on the displacement and rustling of livestock in the region, this could account for the declining production of livestock in Bauchi State and the northeast region generally (KII/Traditional Leader/female/Bauchi/2025).

Table 3: Respondents Distributions on the level of commercialization of livestock production in Bauchi

Response	Frequency (n)	Percentage (%)
Highly commercialized	79	22.8 %
Moderately Commercialized	245	70.6%
Not Commercialized	23	6.6%
Total	347	100%

Source: Field Survey, 2025

Table 3; shows that majority of the 245 respondents (70.6%) indicated that livestock production is moderately commercialized in Bauchi State. 79 respondents (22.8%) indicated that livestock production is highly commercialized in the selected areas in Bauchi State while 23 respondents 6.6% indicated that livestock production is not commercialized. It can now be concluded that livestock production is moderately commercialized in Bauchi State, Nigeria.

One of the Key informants said:

I cannot really tell the level of commercialization of the livestock markets in Bauchi State but I can tell you that the business of livestock is very lucrative from every angle you want to view it. Although, there reported cases of loss and misfortune during delivery but irrespective of that, there are many new entrants into the livestock business and to me this portend progress of commercialization (KII/Crop Farmer/Male/Bauchi/2025).

Another informant said:

The idea of commercialization connotes the market viability and size of livestock production. Yes, livestock production is high is high in this state but they are yet to embrace advance production process as is being done in Saudi, USA and other economically advanced nations in Europe, Asia and Latin America. There is still room for improvement of livestock production. Besides, there is a large opening for stakeholders to invest and make a difference (KII/Livestock-Farmer/Male/Bauchi/2025).

Table 4: Respondents' distribution on the kind of livestock in Bauchi State

Response	Frequency (n)	Percentage (%)
Cattle, Sheep & Goat	238	68.6%
Poultry	66	19.0%
Pig & Rabbit	43	12.4%
Total	347	100%

Source: Field Survey, 2025

Table 4 shows that majority of the respondents 238 (68.6%) indicated that the predominant livestock produced in Bauchi State is Cattle, Sheep and Goat, 66 respondents (19%) indicated that Poultry is the predominant livestock produced in Bauchi while 43 respondents (12.4%) indicated that Pig and Rabbit are the predominant livestock produced in the state. From the foregoing, it can be concluded that cattle, sheep and goat are the most dominant livestock produced in Bauchi State during this study.

One of the informants observed that:

In terms of livestock commercialization, Bauchi state government is committed but there many modalities are being put in place to make that possible, as of this time, there is a quasi-commercialization by some well to do individual in the livestock farming. However, part of the effort is the ranching efforts of the Federal and State government. There is also the challenge of poor awareness among small scale farmers and the double-digit interest loan is

another factor discouraging full commercialization of livestock production in Bauchi State (KII/Livestock-farmer/Male/Bauchi/2025).

Another informant said:

Commercialization is in process already but some key issues like security, access to land and water resources still stand as a stumbling block to many livestock farmers. With the current level of World Bank and other international intervention, we see hope in the near future that livestock production will be effectively be scaled up in Bauchi State (KII/Traditional leader/Male/Bauchi/2025).

Table 5: Respondents distribution on the level of livestock resilience in Bauchi State

Response	Frequency (n)	Percentage (%)
Improving resilience in Husbandry	268	77.2%
Value chain upgrade	59	17.0%
Local infrastructure revitalization	20	5.8%
Total	347	100%

Source: Field Survey, 2025

Table 5: shows that majority of the 268 respondents (77.2%) indicated that there is an improvement in the resilience on animal husbandry in Bauchi State, 59 respondents 17% indicated an improvement in value chain upgrade of livestock in the state while 20 respondents 5.8% indicated revitalization of local infrastructure to serve livestock needs in the state. It can be noted that there is an improvement in the animal husbandry in Bauchi state.

An informant interviewed said:

As far as livestock farmers in Bauchi are concerned, they preferred rearing cattle, sheep and goat for obvious reasons like value chain, ease of process and market demands. Most farmers are most likely to rear cattle, sheep and goats than poultry, rabbit and pig. The informant indicated that pig is at the base of the list for a Muslim farmer because of cultural and religious believe (KII/Livestock-farmer/Male/Bauchi/2025).

One of the key interviewees said:

I think livestock farmers in this state preferred farming cattle, sheep and goats because of the market value, value chain and other reasons like ease of management of the herds. On like other livestock that are very delicate, the aforementioned can withstand the harsh weather condition in Bauchi state and hence, the choice (KII/Livestock-farmer/Female/Bauchi/2025).

3.0 DISCUSSION OF FINDINGS

i. On the level of livestock productivity in the selected communities in Bauchi State?

The study revealed that majority of the respondents believed that livestock production is on the decline. This was further buttressed by the key informant interview conducted in the study. The

informant drew their views from various factors which include security challenges, cattle rustling and poor access to land resources like land and water in Bauchi State.

ii. On the level of commercialization of livestock production in the selected communities in Bauchi State?

The study also revealed that livestock production is moderately commercialized in Bauchi State, Nigeria. The key informants interviewed believed that livestock production has not been fully commercialized due to reasons bothering on poor knowledge, high interests' rates on loans and slow government interventions in Bauchi State.

iii. On how resilient is the livestock farming in the selected communities in Bauchi State?

The study revealed that cattle, sheep and goat are the most dominant livestock produced in Bauchi State during this study. This was further clarified by the key informants. The interview section revealed that livestock farmers in Bauchi State are interested in farming cattle, sheep and goat because the market for those livestock supersedes others and the value chain involved is high. Thus, the study concluded that there is an improvement in the animal husbandry in Bauchi state.

4.0 RECOMMENDATIONS

In view of the foregoing findings, the following recommendations were suggested:

1. This study recommends that government should expand all efforts geared towards addressing the sociological issues that are influencing security challenges in Bauchi State while enhancing the capacity of local institutions such as state ministry of Agriculture and rural development via continuous training, infrastructural upgrades, innovation and other related extension services to improve the declining level of livestock production in Bauchi state, Nigeria
2. Government should intensify efforts at improving livestock farmers access to long term financial services like soft loan, and grants for small and medium scale farmers. This can be supported by capacity building for the farmers and improve market infrastructure like roads, storage facilities and prompt market information system.
3. Government should employ and train more extension workers to build farmers capacity on how to improve the value chain on cattle, sheep and goat farming in Bauchi State in order to improve animal husbandry and improve productivity and commercialization in the state.

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