

Economic Inequality in Yobe State, Nigeria: Patterns, Extent, and Implications

Jankoli Usman Mohammed¹, Sule Magaji² & *Yahaya Ismail³

¹Sustainable Development Centre, University of Abuja

²Department of Economics, University of Abuja

³Department of Economics, University of Abuja

Received: 20.08.2025 | Accepted: 16.09.2025 | Published: 18.09.2025

*Corresponding author: Yahaya Ismail

DOI: [10.5281/zenodo.17155083](https://doi.org/10.5281/zenodo.17155083)

Abstract

Original Research Article

This article examines the patterns, extent, and implications of economic inequality in Yobe State, Nigeria, using a mixed-methods approach that combines household surveys (n = 400), key informant interviews, and focus group discussions. Quantitative results revealed a Gini coefficient of 0.46, indicating moderately high inequality, with the top 20 per cent of households controlling nearly 40 per cent of total income, while the bottom 20 per cent controlled less than 7 per cent. Regression analysis showed that education, employment in the formal sector, access to infrastructure, urban-rural location, and gender of household head significantly influenced household income. Qualitative evidence complemented these findings by illustrating how poor infrastructure, limited access to credit, cultural norms restricting women's participation, and unsustainable coping strategies perpetuate inequality. Triangulation revealed that inequality in Yobe is both structural and intersectional, shaped by socioeconomic disparities and reinforced by institutional and cultural barriers. The study concludes that reducing inequality in Yobe requires integrated policies that strengthen education, expand employment opportunities, improve infrastructure, mainstream gender considerations, and introduce effective social protection systems. The findings contribute to debates on inequality in fragile states and provide policy guidance for inclusive development in Nigeria.

Keywords: Economic inequality, Yobe State, Gini coefficient, gender disparities, poverty, infrastructure, Nigeria, mixed-methods, social protection, inclusive development.

Copyright © 2025 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial 4.0 International License (CC BY-NC 4.0).

Introduction

Economic inequality has increasingly become a pressing concern in both developed and developing countries, with its effects on poverty, social cohesion, and sustainable development receiving growing scholarly and policy attention. Nigeria, Africa's largest economy and most populous nation, presents a paradox of vast natural and human resources coexisting with persistent poverty and inequality (Akinola, 2021). While the country has recorded periods of robust economic growth driven by oil revenues and agricultural production, the benefits of such growth have been unevenly distributed across regions, sectors, and social groups (Magaji et al., 2025). Yobe State, located in the northeastern region of Nigeria, exemplifies this inequality challenge. The state is among the poorest in the federation, with multidimensional poverty indices consistently ranking it below national averages (National Bureau of Statistics [NBS], 2022). This makes it an

important site for analysing the patterns, extent, and implications of economic inequality in Nigeria.

Economic inequality refers to the unequal distribution of income, wealth, and opportunities among individuals and groups within a society (Enaberue et al., 2024). It is often measured using indicators such as the Gini coefficient, income quintile shares, and wealth distribution metrics (Piketty, 2014). However, beyond monetary measures, inequality also manifests in access to education, healthcare, employment opportunities, and political participation (World Bank, 2016). In the Nigerian context, inequality has been shaped by historical, structural, and institutional factors (Shaba et al., 2018). These include colonial legacies, weak governance, corruption, and uneven access to economic opportunities (Oyekola, 2020). Inequality has been exacerbated by the Boko Haram insurgency, the impacts of climate change on agriculture (Yakubu et al., 2025), and infrastructural

underdevelopment, all of which have deepened existing vulnerabilities (Audu & Yusuf, 2019).

Recent evidence suggests that Nigeria is among the countries with the highest levels of income inequality globally. The Gini coefficient was estimated at 35.1 in 2020, with marked disparities between the northern and southern regions (World Bank, 2022). While southern states such as Lagos, Rivers, and Ogun have benefitted from industrialisation and a thriving service sector, northern states, including Yobe, remain heavily dependent on subsistence agriculture, livestock production, and limited public sector employment. This structural imbalance has translated into lower per capita incomes, higher unemployment rates, and restricted access to quality social services in the North (Okon & Adebayo, 2021). Within Yobe, income distribution is skewed, with wealth concentrated among political elites, traders, and contractors. At the same time, a majority of the population struggles with chronic poverty, food insecurity, and limited upward mobility.

The persistence of economic inequality in Yobe State has significant social and developmental implications. First, inequality perpetuates poverty by limiting access to resources and opportunities for marginalised groups. The Nigeria Multidimensional Poverty Index (2022) revealed that over 70% of households in Yobe lack access to basic education, clean energy, and healthcare, reinforcing cycles of deprivation. Second, inequality undermines social cohesion and fuels grievances that can exacerbate violent conflict and insecurity (Zailani et al., 2025). Scholars have linked regional disparities and exclusion to the rise of insurgent movements in northeastern Nigeria (Ibrahim & Mohammed, 2021). Third, inequality poses a barrier to achieving the Sustainable Development Goals (SDGs), particularly Goal 1 (No Poverty), Goal 8 (Decent Work and Economic Growth), and Goal 10 (Reduced Inequalities). Thus, understanding its patterns and extent in Yobe is critical for formulating effective policies aimed at inclusive development.

Existing literature on economic inequality in Nigeria has primarily focused on national and regional trends, with relatively limited attention paid to subnational case studies (Amadi & Ekekwe, 2021). While studies have examined income distribution in urban centres such as Lagos and Abuja, fewer have analysed rural and conflict-affected states, including Yobe, where structural inequalities intersect with insecurity and environmental stressors. By situating the analysis within Yobe State, this study contributes to filling this gap, offering insights into how local dynamics shape inequality and what lessons can be drawn for broader national debates. Moreover, it highlights the urgency of targeted interventions that move beyond generic poverty alleviation programs to address structural inequities in resource allocation, infrastructure, and human capital development.

This article, therefore, aims to assess the nature and extent of economic inequality in Yobe State, Nigeria, with a focus on its patterns across income, education, and access to basic services. Specifically, the study seeks to: (1) examine the distribution of household incomes and livelihoods; (2) explore disparities in access to education, healthcare, and

infrastructure; and (3) analyse the broader implications of inequality for poverty reduction, social stability, and sustainable development in the state. By employing both quantitative and qualitative approaches, the paper provides a comprehensive picture of inequality in Yobe, situating it within Nigeria's broader development trajectory.

In doing so, the study contributes to both scholarly discourse and policy debates. From a theoretical perspective, it adds to the understanding of how inequality manifests in fragile, conflict-affected, and climate-stressed contexts. From a policy standpoint, it underscores the need for multi-level interventions that combine redistributive policies, inclusive governance, and investments in human development. Given Nigeria's commitment to reducing inequality under the SDGs and the African Union's Agenda 2063, findings from this study hold relevance not only for Yobe State but also for other marginalised regions in the country and beyond.

2. Literature Review

2.1 Conceptual Definition

Economic inequality is a multidimensional concept that refers to the unequal distribution of income, wealth, and opportunities among individuals or groups within a society (Magaji & Mohammed, 2008). At its narrowest, inequality is measured through income disparities, usually captured by the Gini coefficient or income quintile ratios (Piketty, 2014). Beyond income, inequality extends to disparities in access to education (Magaji, 2007), health (Ismail et al, 2024), financial services (Okoroafor et al., 2018) , and political representation, which together shape an individual's life chances and capabilities. Scholars distinguish between vertical inequality due to differences among individuals or households (Stewart, 2010) and horizontal inequality due to disparities among social groups defined by ethnicity, religion, or gender (Magaji,2002). In contexts such as Yobe State, economic inequality must be understood not only as an income gap but also as limited access to social infrastructure, employment opportunities, and productive assets.

Conceptually, inequality differs from poverty, though the two are often interrelated. Poverty focuses on absolute deprivation (Jafaru et al., 2024), while inequality emphasises relative distribution (World Bank, 2016). A society may reduce poverty without significantly altering inequality if elites disproportionately capture economic gains (Sen, 1999; Muhammed et al, 2025). This is the Nigerian paradox, where periods of economic growth have not translated into equitable income distribution (Oyekola, 2020). Thus, analysing inequality in Yobe State requires moving beyond poverty headcounts to examine how structural factors conflict, governance, and geography affect resource distribution and opportunity structures.

2.2 Theoretical Framework

Several theories have been advanced to explain economic inequality. This study draws on three interrelated perspectives:

The Kuznets Hypothesis:

Kuznets (1955) proposed an inverted U-shaped relationship between economic growth and inequality. At early stages of development, inequality rises as structural transformation benefits urban elites, but later declines as broader segments of society gain access to industrial and service sector jobs. However, evidence from developing countries, including Nigeria, has challenged this model, showing that inequality may persist despite economic growth (Akinola, 2021). In Yobe State, where industrialisation is minimal, the Kuznets hypothesis helps explain why structural transformation has failed to reduce inequality.

Human Capital Theory:

According to Becker (1993), disparities in income and productivity are essentially outcomes of differences in human capital, including education, health, and skills. Inequality is perpetuated when disadvantaged groups cannot access quality education (Magaji, 2008) and healthcare, limiting their ability to compete in labour markets. This perspective is particularly relevant in Yobe, where insurgency and weak public investment have eroded educational attainment and health outcomes (Audu & Yusuf, 2019).

Relative Deprivation and Conflict Theory:

Gurr (1970) argued that inequality fuels grievances when individuals or groups perceive themselves as marginalised compared to others. Such perceptions can trigger unrest, instability, and insurgency. This framework resonates strongly with Yobe State, where economic exclusion, combined with insecurity, has contributed to violent conflict. The persistence of poverty and unemployment has provided fertile ground for recruitment into extremist groups (Ibrahim & Mohammed, 2021).

By combining these perspectives, this study situates inequality in Yobe as both a developmental and socio-political issue, shaped by structural economic factors, human capital disparities, and conflict dynamics.

2.3 Empirical Evidence

Empirical studies across Nigeria and Africa reveal the persistence of economic inequality and its adverse implications for development, governance, and social stability. National surveys consistently demonstrate wide regional disparities, with northern states, including Yobe, faring worse than their southern counterparts in terms of income, education, and infrastructure (National Bureau of Statistics [NBS], 2022). These disparities are not merely statistical; they manifest in everyday realities, such as unequal access to quality schools, healthcare facilities, job opportunities, and social services.

Olaiya (2020) found that government palliatives during fuel subsidy removals were poorly targeted, reinforcing elite capture and excluding vulnerable households that were the intended beneficiaries. This mismanagement

worsened inequality by disproportionately benefiting politically connected groups. Similarly, Okon and Adebayo (2021) demonstrated that income inequality in Nigeria is closely linked to regional development disparities, where states in the North record higher poverty rates, limited industrialisation, and weaker human development outcomes compared to the South. These findings emphasise the structural dimension of inequality in Nigeria, where geography and institutional quality significantly influence access to resources and opportunities.

At the subnational level, Yobe's unique vulnerabilities are well documented. Audu and Yusuf (2019) reported that the Boko Haram insurgency significantly disrupted agricultural production, displaced rural populations, and undermined local economies. Since agriculture forms the backbone of livelihoods in Yobe, these disruptions translated into declining household incomes and a widening inequality gap between those with access to alternative income streams and those trapped in subsistence farming. Ibrahim and Mohammed (2021) further found that social welfare interventions in Yobe and Borno were insufficient to mitigate poverty and inequality, mainly due to corruption, poor implementation mechanisms, and insecurity that hindered effective delivery.

Other Nigerian studies corroborate these challenges. Akinola (2021) highlighted that social protection policies, including conditional cash transfers, often fail to reach rural and marginalised populations, limiting their impact on reducing inequality. Amadi and Ekekwe (2021) linked governance deficits and corruption to deepening inequality during the COVID-19 pandemic, where elites manipulated emergency relief measures. In rural northern Nigeria, Ibrahim and Auta (2020) documented that inequality in access to education and health services directly correlated with higher vulnerability to poverty, particularly among women and children. These empirical insights reinforce the notion that inequality in Yobe is not only income-based but also multidimensional, spanning education, healthcare, and access to basic infrastructure.

International research also supports these findings. The World Bank (2022) emphasised that Nigeria's high level of inequality poses a significant constraint to inclusive growth, warning that persistent disparities could erode social cohesion and erode trust in institutions. Stewart (2010) emphasised that horizontal inequalities those occurring between groups defined by ethnicity, religion, or region contribute significantly to conflict and underdevelopment in fragile states. These insights are relevant to Yobe, where perceptions of marginalisation and exclusion have intersected with violent conflict, exacerbating economic and social divides.

Comparative evidence from other African countries demonstrates the potential of targeted interventions. For example, Berhane et al. (2020) demonstrated that Ethiopia's Productive Safety Net Programme (PSNP) enhanced food security and reduced vulnerability among poor households, thereby contributing to a narrowing of inequality when properly designed and implemented.

Likewise, Klasen and Lamanna (2009) found that addressing gender-based inequalities in education and labour markets in Sub-Saharan Africa could yield substantial gains in reducing overall income inequality and accelerating economic growth. However, in Nigeria, similar interventions have often failed due to weak institutional capacity, political interference, and insecurity (Akinola, 2021).

Evidence from Ghana further illustrates the role of social protection in addressing inequality. Abebrese (2016) found that Ghana's Livelihood Empowerment Against Poverty (LEAP) program improved household welfare and reduced vulnerability when accompanied by strong monitoring and accountability mechanisms. These findings suggest that policy effectiveness in reducing inequality is contingent upon institutional strength, transparency, and sustained political will factors that remain weak in Nigeria's northern states, including Yobe.

Taken together, the literature suggests that economic inequality in Yobe is both structural and conflict-induced, reflecting a convergence of poverty, insecurity, weak institutions, and limited human capital development. The persistence of inequality has profound implications for poverty alleviation, governance, and long-term development. By synthesising these empirical insights, this study builds on existing evidence to provide a more detailed, state-level analysis that captures the patterns, extent, and broader consequences of inequality in a fragile context such as Yobe State.

3. Methodology

This study adopts a mixed-methods research design, combining both quantitative and qualitative approaches to provide a comprehensive understanding of economic inequality in Yobe State. The quantitative aspect employed a cross-sectional survey using structured questionnaires administered to households across the three senatorial districts of the state. A multi-stage sampling technique was adopted: first, local government areas (LGAs) were stratified by urban and rural classification; second, wards were randomly selected within each LGA; and third, households were systematically sampled from the selected wards. In total, 400 households were surveyed, ensuring representation of different socioeconomic categories. The questionnaire captured information on household income, expenditure, education, health, employment, and access to infrastructure, thereby providing key indicators for assessing inequality.

To complement the survey, qualitative data were collected through key informant interviews (KIIs) and focus group discussions (FGDs). KIIs were conducted with policymakers, community leaders, non-governmental organisations (NGOs), and social protection officers in Yobe State, while FGDs were held with community members, farmers, traders, and women's associations. This qualitative component provided context to the numerical data by exploring perceptions of inequality, barriers to accessing opportunities, and coping mechanisms in the face of economic and social challenges.

Data analysis was carried out using both descriptive and inferential techniques. Descriptive statistics, such as means, frequencies, and percentages, were used to present household characteristics. The Gini coefficient and income quintile distribution were employed to measure the extent of inequality. Multivariate regression analysis was applied to identify factors influencing income disparities across households. Qualitative data were analysed using thematic analysis, where recurring themes and patterns were identified, coded, and interpreted in relation to the study objectives.

3.1 Regression Model Specification

To identify the determinants of household income inequality in Yobe State, an Ordinary Least Squares (OLS) regression model was specified as follows:

$$Y_i = \beta_0 + \beta_1 Edu_i + \beta_2 Emp_i + \beta_3 Infrai + \beta_4 Gender_i + \beta_5 Urbani + \epsilon_i$$

Where:

- Y_i = Household income (dependent variable)
- β_0 = Constant term
- Edu_i = Education level of household head (measured as years of schooling or categorical level: none, primary, secondary, tertiary)
- Emp_i = Employment sector (dummy variable: 1 = formal sector, 0 = informal sector)
- $Infrai$ = Access to infrastructure (index of access to electricity, water, and road networks)
- $Gender_i$ = Gender of household head (dummy variable: 1 = male, 0 = female)
- $Urbani$ = Location of household (dummy variable: 1 = urban, 0 = rural)
- ϵ_i = Error term

3.2 Estimation Procedure

The OLS estimation was chosen because the dependent variable (household income) is continuous, and the model seeks to estimate the marginal effects of key socioeconomic variables on income levels. The coefficients (β) capture the direction and magnitude of the relationship between each explanatory variable and household income, thereby indicating their contribution to income inequality across households in Yobe State.

3.3 Expected Signs of Variables

- β_1 (Education level): Positive – higher education is expected to increase income.
- β_2 (Employment sector): Positive – formal employment typically yields higher income.
- β_3 (Access to infrastructure): Positive – better access improves productivity and market access.

- β_4 (Gender of household head): Negative – female-headed households are expected to earn less on average.
- β_5 (Urban location): Positive – urban households generally have higher income levels.

The validity and reliability of the research instruments were ensured through a pilot test conducted in Damaturu LGA, after which adjustments were made to improve clarity and relevance. Ethical considerations were strictly observed; informed consent was obtained from all participants, confidentiality of responses was guaranteed, and participation was voluntary. By triangulating

quantitative and qualitative evidence, the methodology enhances the robustness of the findings. It enables a nuanced exploration of the patterns, extent, and implications of economic inequality in Yobe State.

4. Results and Discussion

4.1 Household Characteristics

The survey covered 400 households distributed across the three senatorial districts of Yobe State. Table 1 presents the demographic and socioeconomic characteristics of the respondents.

Table 1: Socioeconomic Characteristics of Households in Yobe State

Variable	Frequency (%)
Gender of Household Head	Male (76.5), Female (23.5)
Location	Urban (41.0), Rural (59.0)
Education Level of Household Head	No formal education (42.8), Primary (21.3), Secondary (20.0), Tertiary (15.9)
Main Occupation	Farming (48.5), Trading (26.0), Civil Service (15.5), Others (10.0)
Monthly Household Income (₦)	<20,000 (44.3), 20,001–50,000 (28.5), 50,001–100,000 (17.2), >100,000 (10.0)

The results indicate that rural households dominate the sample, with farming being the most common occupation. Educational attainment is relatively low, with over 40% of household heads having no formal education. This profile suggests a socioeconomic context that predisposes households to structural inequality.

4.2 Extent of Economic Inequality

An income distribution analysis using the Gini coefficient yielded a value of 0.46, indicating a moderately high level of income inequality in Yobe State. Table 2 shows the distribution of income across quintiles.

Table 2: Income Distribution by Quintiles in Yobe State

Quintile	Share of Total Income (%)
Lowest 20%	6.5
Second 20%	11.0
Middle 20%	17.5
Fourth 20%	26.0
Highest 20%	39.0

The results highlight sharp disparities: the top 20% of households control nearly 40% of total income, while the poorest 20% control less than 7%. These findings align with studies in similar Nigerian states, where inequality is driven by limited access to formal employment and unequal distribution of public resources (Ibrahim & Mohammed, 2021).

4.3 Determinants of Income Inequality

Multivariate regression analysis identified significant predictors of income inequality (Table 3).

Table 3: Regression Results on Determinants of Household Income

Variable	Coefficient (β)	p-value
Education level	0.321	0.000***
Employment sector (formal)	0.284	0.002***
Access to infrastructure	0.196	0.011**
Gender of household head	-0.112	0.089*
Location (urban =1)	0.245	0.004***

***p<0.01; **p<0.05; *p<0.1

The results show that higher education, employment in the formal sector, and better access to infrastructure significantly increase household income, thereby reducing inequality. Urban households also earn significantly more than rural households, reflecting spatial inequality. Female-headed households tend to earn less, though the effect is marginally significant. These findings resonate with Akinola (2021), who emphasised that educational disparities and urban bias are major contributors to inequality in Nigeria.

4.4 Perceptions and Lived Realities (Qualitative Findings)

The qualitative evidence from Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) provided depth and context to the quantitative findings, revealing how economic inequality is understood and experienced in everyday life. Three major themes emerged from the narratives: barriers to opportunities, gender disparities, and coping mechanisms.

4.4.1 Barriers to Opportunities

Across FGDs in rural and semi-urban communities, participants consistently highlighted lack of access to financial services, poor infrastructure, and limited market access as critical obstacles to improving household welfare. Many farmers lamented that despite their hard work, structural constraints limit their ability to increase income. A farmer from Geidam explained:

“We produce many grains during harvest, but because there is no good storage and the roads are bad, we sell them cheaply. Middlemen take advantage of us, and by the time we go to the market, the profit is almost nothing.”

Similarly, a local trader in Damaturu pointed to the challenge of credit facilities:

“Banks here do not trust small traders like us. If you do not have collateral or someone in government to stand for you, they will not give you a loan. So, how can we expand our business?”

These accounts reveal that a lack of institutional and infrastructural support perpetuates inequality by

constraining economic mobility for the majority, particularly in rural Yobe.

4.4.2 Gender Disparities

Gender emerged as a recurring theme, with women participants in FGDs and women’s associations underscoring that inequality is not only economic but also rooted in cultural and social norms. One female respondent from Potiskum captured this sentiment:

“As women, we are expected to stay at home or do small businesses like selling food. Men control the big shops and farms. Even if you have money, people will say, ‘Why should a woman own land?’ We are excluded.”

A woman’s association leader in Gashua further emphasised structural exclusion:

“Most government programs talk about empowering women, but when the time comes, men dominate the list of beneficiaries. Women only hear about it after everything is finished.”

These narratives show that cultural expectations, coupled with institutional bias, restrict women from entering high-income sectors and from accessing government interventions, reinforcing multidimensional inequality.

4.4.3 Coping Mechanisms

Households employ various coping strategies to manage economic hardship, but respondents acknowledged that these mechanisms are often temporary and unsustainable. Seasonal migration, especially among young men, was widely reported. A community leader in Machina noted:

“Every dry season, many youths leave for Maiduguri or even Abuja to do small jobs. They send money home, but when they come back, nothing has changed. It is to survive.”

Women also described engaging in low-return petty trading to supplement household income. A participant in an FGD in Damaturu stated:

"I sell groundnuts and akara every morning. It helps to buy small things for the children, but it cannot solve bigger problems like school fees or hospital bills."

Additionally, reliance on informal networks of support was mentioned. Households often turn to relatives, neighbours, or religious groups for assistance. However, as one FGD participant in Yunusari put it:

"Even those we run to for help are also struggling. Everybody is managing, so community support cannot carry us far."

These testimonies highlight the resilience of communities in Yobe State but also underscore the insufficiency of informal coping strategies in addressing structural economic inequality.

4.5 Triangulation of Findings

The integration of quantitative and qualitative findings provides a more nuanced understanding of the nature and extent of economic inequality in Yobe State. While statistical measures highlighted structural inequalities in income and access to opportunities, the lived experiences narrated by respondents contextualised these patterns, revealing how inequality is produced and sustained in everyday life.

The Gini coefficient of 0.46 and the income quintile distribution revealed a clear concentration of resources in the hands of the top 20 per cent of households, who control nearly 40 per cent of the total income. This aligns with narratives from rural farmers and traders who emphasised how poor infrastructure, lack of credit facilities, and weak markets systematically disadvantage the poorest groups. The testimony of the Geidam farmer lamenting losses due to bad storage and road networks mirrors the regression results, where access to infrastructure significantly predicted income ($\beta = 0.196$, $p = 0.011$). Thus, statistical evidence of infrastructure's role in reducing inequality is reinforced by the lived realities of rural households.

Similarly, regression results showed that education ($\beta = 0.321$, $p = 0.000$) and formal sector employment ($\beta = 0.284$, $p = 0.002$) are strong determinants of income, underscoring the structural barriers faced by households with low educational attainment. FGDs corroborated this by revealing that many respondents, especially women, are excluded from high-income opportunities due to cultural norms and limited access to skills training. The Potiskum woman's statement—"*Men control the big shops and farms. Even if you have money, people will say, 'Why should a woman own land?'*"—illustrates how educational and occupational inequality intersects with gendered social expectations, thereby entrenching disadvantage.

Urban-rural disparities identified in the regression analysis ($\beta = 0.245$, $p = 0.004$) also resonated strongly in qualitative accounts. Rural households emphasised their exclusion from government interventions and markets, while urban respondents highlighted better access to employment and infrastructure. This reflects broader patterns in Nigeria, where regional and spatial inequalities persist (Ibrahim & Mohammed, 2021; Akinola, 2021).

Finally, while the regression analysis indicated that female-headed households tend to earn less ($\beta = -0.112$, $p = 0.089$), FGDs deepened this finding by showing how gender disparities are perpetuated not just economically but also socially and politically. Women's exclusion from government programs, as narrated by the Gashua women's leader, reveals how institutional biases reinforce structural inequality, beyond what household income data alone can capture.

Coping strategies such as seasonal migration and petty trading, reported in FGDs, further contextualise why income inequality persists despite community resilience. These strategies provide temporary relief but do not alter the structural determinants identified in regression analysis, particularly education, employment, and infrastructure access. As one community leader in Machina put it: "*They send money home, but when they come back, nothing has changed. It is to survive.*" This indicates that while households adapt, the absence of systemic solutions means inequality remains entrenched.

Taken together, triangulation reveals that economic inequality in Yobe State is both structural and intersectional, shaped by education, employment sector, infrastructure, and urban-rural divides, while being reinforced by gender norms, institutional weaknesses, and insecurity. The quantitative data outlined the magnitude and predictors of inequality, while the qualitative narratives exposed its everyday manifestations, barriers, and coping strategies. Together, these findings suggest that addressing inequality requires integrated policy responses that combine structural reforms with targeted social interventions.

4.6 Discussion

The results underscore a multi-dimensional nature of inequality in Yobe State. The high Gini coefficient and unequal quintile distribution demonstrate entrenched disparities, consistent with national poverty and inequality reports (NBS, 2022). Education emerges as a critical factor, reinforcing human capital theories that link schooling to higher earnings and reduced vulnerability. However, qualitative findings reveal that even educated individuals face structural barriers, such as limited employment opportunities.

Gender and spatial inequalities further compound the problem. Rural households remain disadvantaged due to poor infrastructure and limited market access, while women continue to face cultural and institutional discrimination. These findings suggest that addressing inequality in Yobe State necessitates a comprehensive approach that integrates investments in education and infrastructure with gender-sensitive policies and inclusive development strategies.

5. Conclusion

This study examined the patterns, extent, and implications of economic inequality in Yobe State, employing a mixed-methods approach. Quantitative findings revealed a Gini coefficient of 0.46, indicating a

moderately high level of inequality, with the top 20 per cent of households controlling nearly 40 per cent of total income. Regression analysis identified education, employment sector, infrastructure, urban-rural location, and gender of household head as significant predictors of inequality. Qualitative evidence enriched these results, highlighting barriers such as limited access to credit, poor infrastructure, cultural norms restricting women's participation, and unsustainable coping strategies like migration and petty trading. Together, the evidence underscores that inequality in Yobe State is both structural and socially embedded, with implications for poverty alleviation, social stability, and long-term development.

6. Recommendations

1. **Strengthen Educational Access and Quality:** Expanding access to quality education and vocational training, especially in rural areas and among women, will reduce structural inequality and enhance participation in higher-income opportunities.
2. **Promote Inclusive Employment Opportunities:** Policies that expand formal sector jobs and support small and medium-scale enterprises (SMEs) should be prioritised, with particular attention to youth and women entrepreneurs.
3. **Improve Infrastructure and Market Access:** Investments in rural roads, storage facilities, and digital financial systems will enhance productivity and reduce disparities between urban and rural households.
4. **Mainstream Gender in Development Policies:** Women should be actively included in government interventions through gender-sensitive targeting and monitoring to overcome cultural and institutional exclusion.
5. **Strengthen Social Protection Programs:** Introducing transparent, well-targeted social safety nets that address structural vulnerability rather than ad hoc palliatives will provide more sustainable relief to poor households.

7. Contribution to Knowledge

This study makes a significant contribution to the literature in three key ways. First, it provides a state-level empirical analysis of economic inequality in Yobe, a context that is often overlooked in national-level studies. Second, by integrating quantitative and qualitative evidence, it captures both the structural determinants and lived realities of inequality, offering a more holistic understanding. Third, it highlights the intersection of insecurity, gender norms, and institutional weaknesses as unique drivers of inequality in fragile states, thus extending theoretical debates on inequality beyond conventional income measures to include sociocultural and political dimensions.

REFERENCES

- Abebrese, J. (2016). Social protection in Ghana: An overview of existing programs and their effectiveness. *Journal of Social Development in Africa*, 31(2), 37–56.
- Akinola, O. A. (2021). Poverty alleviation and social protection in Nigeria: Issues and policy options. *Journal of Social Policy and Society*, 20(2), 45–59.
- Amadi, L., & Ekekwe, E. (2021). COVID-19, governance, and corruption in Nigeria: Implications for public trust. *African Journal of Governance and Development*, 10(1), 139–158.
- Audu, S. D., & Yusuf, A. M. (2019). Insurgency and socioeconomic development in Northeast Nigeria. *Journal of Conflict Studies*, 12(3), 44–59.
- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference to education* (3rd ed.). University of Chicago Press.
- Berhane, G., Hoddinott, J., Kumar, N., & Margolies, A. (2020). The impact of Ethiopia's Productive Safety Net Programme on food security and vulnerability. *World Development*, 129, 104850.
- Enaberue, E., Musa, I., & Magaji, S. (2024). Impact of income inequality on poverty level in Nigeria: Evidence from ARDL model. *Asian Journal of Economics, Business and Accounting*, 24(5), 86–98. <https://doi.org/10.9734/AJEBA2024V24:51295I>
- Gurr, T. R. (1970). *Why men rebel*. Princeton University Press.
- Ibrahim, A., & Auta, S. J. (2020). Rural inequality and human development challenges in Northern Nigeria. *Nigerian Journal of Rural Sociology*, 21(1), 22–34.
- Ibrahim, A., & Mohammed, S. (2021). Social welfare interventions and poverty alleviation in conflict-prone Northern Nigeria: Evidence from Borno and Yobe States. *Journal of African Development Studies*, 13(2), 112–128.
- Ismail, Y., Musa, I., & Magaji, S. (2024). Assessment of the Impact of government health expenditure on Economic Growth in Nigeria. *Journal of Arid Zone Economy*, 4(3), 132–151. [https://bit.ly/JazeIssue4\(3\)](https://bit.ly/JazeIssue4(3))
- Jafaru, Y., Magaji, S., & Abdullahi, I. A. (2024). Poverty, Family Status, and Crime: Insights from Gwagwalada, Abuja, Nigeria. *International Journal of Research Publication and Reviews*, 5(5), 6745–6755.
- Klasen, S., & Lamanna, F. (2009). The impact of gender inequality in education and employment on economic growth: New evidence for a panel of countries. *Feminist Economics*, 15(3), 91–132.
- Kuznets, S. (1955). Economic growth and income inequality. *American Economic Review*, 45(1), 1–28.
- Magaji, S. (2002). Towards a gender model of poverty alleviation in Sub-Saharan Africa. *Journal of Research and Development in Africa*, 1(1), 81–89.

- Magaji, S. (2007). Poverty as a factor in child labour in developing countries. *Abuja Journal of Sociological Studies*, 3(1), 66–81.
- Magaji, S. (2008). Family Poverty and Child Schooling in Abuja: Intervention Areas for Sustainable Development. *Nigerian Journal of Educational Administration and Planning*, 8(3), 351–367.
- Magaji, S., & Mohammed, S. (2008). Micro-credit and gender inequality in Nigeria. *Journal of Economics and Allied Fields*, 3(1), 125–137.
- Magaji, S., Musa, I., & Ismail, Y. (2025). Evaluating the link between oil price and macroeconomic dynamics in Nigeria. *New Advances in Business, Management and Economics*, 5(5), 96–115. <https://doi.org/10.9734/bpi/nabme/v5/4860>
- Muhammed, A. A., Magaji, S., & Ismail, Y. (2025). Assessment of the factors affecting the empowerment of women entrepreneurs in Nigeria. *International Journal of Research and Innovation in Social Science*, 9(4), 5507–5523. <https://doi.org/10.47772/IJRISS.2025.90400392>
- National Bureau of Statistics. (2022). *Nigeria Multidimensional Poverty Index (MPI) 2022 report*. NBS.
- Okon, E., & Adebayo, S. (2021). Income Inequality and Regional Development Disparities in Nigeria *African Development Review*, 33(4), 579–593.
- Okoroafor, O. K., Magaji, S., & Eze, J. U. (2018). The impact of deposit money banks on capital formation in Nigeria: 1980–2015. *International Journal of Current Research in Life Sciences*, 7(8), 2570–2577.
- Olaiya, T. A. (2020). Elite Capture and the Political Economy of Palliatives in Nigeria. *Journal of Public Policy in Africa*, 7(1), 27–42.
- Oyekola, T. (2020). The political economy of inequality in Nigeria: Institutions, corruption, and growth. *Journal of Contemporary African Studies*, 38(2), 203–220.
- Piketty, T. (2014). *Capital in the twenty-first century*. Harvard University Press.
- Sen, A. (1999). *Development as freedom*. Oxford University Press.
- Shaba, N. Y., Obansa, S. A. J., Magaji, S., & Yelwa, M. (2018). Analysis of the Relationship between Income Inequality and Poverty Prevalence in Selected North Central States of Nigeria. *Journal of Economics and Public Finance*, 4(2), 130–142.
- Stewart, F. (2010). Horizontal Inequalities as a Cause of Conflict: A Review of CRISE Findings. *World Development*, 39(2), 707–716.
- World Bank. (2016). *Poverty and Shared Prosperity: Taking on Inequality*. World Bank Publications.
- World Bank. (2022). *Nigeria Development Update: The Urgency for Business Unusual*. World Bank Publications.
- Yakubu, J., Magaji, D. A., & Magaji, S. (2025). Assessing the Socio-economic Impact of Climate Change and Poverty in Birnin Kudu Local Government, Jigawa State, Nigeria. *African Journal of Social Sciences and Humanities Research*, 8(2), 11–31.
- Zailani, H. S., Magaji, S., & Jafaru, Y. (2025). Examining the methods in achieving effective conflict resolution and peace-building in North East Nigeria. *GAS Journal of Arts, Humanities and Social Sciences*, 3(5), 12–18.