

The Impact of Cross-Border Trade On Economic Development in The Lake Chad Basin: A Nigerian Case Study

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Abstract—This study explores the impact of cross-border trade on economic development in the Lake Chad Basin, with a specific focus on Nigeria's border regions. The Lake Chad Basin shared by Nigeria, Niger, Chad, and Cameroon has historically functioned as a vital hub for transnational trade, supporting the movement of goods, services, and people. Cross-border trade in this region serves as a crucial economic lifeline, particularly for communities that are geographically marginalized and economically underserved. However, a combination of persistent security threats, infrastructural deficits, environmental degradation, and weak institutional oversight has hindered the potential of this trade to foster meaningful economic development. Adopting a mixed-methods approach, the study integrates quantitative data analysis of trade volumes and trends with qualitative insights drawn from interviews and focus group discussions involving traders, border officials, policymakers, and local residents. The research highlights both the opportunities and constraints associated with cross-border trade, demonstrating that while it contributes significantly to income generation, employment, and informal sector expansion, it is also undermined by challenges such as border insecurity, smuggling, and inconsistent regulatory practices. The study concludes that targeted policy reforms focused on improving security, upgrading transport and trade infrastructure, enhancing intergovernmental coordination, and formalizing trade practices are essential to unlocking the full economic benefits of cross-border trade in the Lake Chad Basin. These reforms are critical for promoting inclusive and sustainable economic development in Nigeria's border areas and the region at large.

Key words: *Cross-Border Trade, Economic Development, Lake Chad Basin, Informal Economy, Regional Integration*

1. INTRODUCTION

Boko Cross-border trade is a vital component of economic development, particularly in regions where formal markets are underdeveloped and local livelihoods depend heavily on informal economic activities. In Africa, cross-border trade contributes significantly to income generation, food security, and employment, especially among marginalized communities. The Lake Chad Basin, a historically vibrant economic zone, exemplifies this dynamic. Shared by Nigeria, Chad, Cameroon, and Niger, the Basin has traditionally facilitated the movement of goods, services, and people across borders, fostering regional integration and socio-economic interdependence.

Nigeria, as the most populous and economically dominant country in the Lake Chad region, plays a central role in the Basin's cross-border trade ecosystem. In the northeastern states bordering the Lake Chad particularly Borno, Yobe, and Adamawa cross-border activities form the backbone of local economies. These activities include the trade of agricultural products, livestock, manufactured goods, and petroleum products, both through formal and informal channels.

Despite the trade potential, the region faces numerous challenges that hinder sustainable economic development. Decades of environmental degradation, particularly the shrinking of Lake Chad, have diminished agricultural and fishing productivity. In addition, the emergence of violent extremism, particularly the Boko Haram insurgency, has destabilized the region, disrupted trade routes, and weakened state institutions. Coupled with inadequate infrastructure, porous borders, and inefficient regulatory frameworks, these challenges have limited the positive impact of cross-border trade.

This study focuses on understanding the role cross-border trade plays in driving or constraining economic development within the Nigerian sector of the Lake Chad Basin. By examining trade flows, government policies, security dynamics, and stakeholder experiences, the study seeks to uncover

how cross-border interactions shape local and national development outcomes. The findings aim to inform policymakers on how to optimize the benefits of cross-border trade while addressing the structural and security-related barriers that persist in the region.

1.1 Problem Statement

The Lake Chad Basin, once a thriving center of economic and cultural exchange, is today a region grappling with significant socio-economic and environmental challenges. For Nigeria, which holds a substantial portion of the basin's population and landmass, cross-border trade with neighboring Chad, Niger, and Cameroon presents a vital opportunity for economic development, poverty reduction, and regional integration. However, the full potential of this trade remains largely unrealized. Insecurity from insurgent groups such as Boko Haram and ISWAP, persistent border conflicts, weak institutional frameworks, and inadequate infrastructure have significantly disrupted trade activities in the region. Moreover, much of the trade that occurs is informal and unregulated, resulting in revenue loss for the state and limited legal protections for traders, especially vulnerable groups such as women and youth. The lack of cohesive trade policies and cross-border collaboration also hampers the growth of formal trade networks. Despite various policy efforts and international interventions aimed at revitalizing the region, there is limited empirical data on how cross-border trade directly influences local livelihoods and broader economic development in Nigeria's Lake Chad Basin communities. This study therefore seeks to address these gaps by investigating the role of cross-border trade in shaping the region's economic outcomes and recommending sustainable strategies for inclusive development.

1.2 Objective of The Study

The study's objectives are:

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1. To assess the structure and scale of cross-border trade in Nigeria's section of the Lake Chad Basin.
2. To examine the economic benefits of cross-border trade for local communities, particularly in terms of income generation and employment.
3. To identify key challenges affecting cross-border trade, including security, infrastructure, and regulatory barriers.
4. To analyze the impact of insecurity and governance on trade dynamics in the region.
5. To propose policy recommendations and development strategies for improving cross-border trade and promoting sustainable economic development.

1.3 Research Question

The study includes the following questions:

1. What is the current nature and volume of cross-border trade in Nigeria's Lake Chad Basin?
2. How does cross-border trade affect income levels, employment, and livelihoods in the region?
3. What are the major challenges hindering effective cross-border trade in the Lake Chad Basin?
4. How does insecurity and border management impact trade and economic development?
5. What policy and infrastructural interventions can enhance the contribution of cross-border trade to regional development?

1.4 Research Objectives

1. To assess the structure and scale of cross-border trade in Nigeria's section of the Lake Chad Basin.
2. To examine the economic benefits of cross-border trade for local communities, particularly in terms of income generation and employment.
3. To identify key challenges affecting cross-border trade, including security, infrastructure, and regulatory barriers.
4. To analyze the impact of insecurity and governance on trade dynamics in the region.
5. To propose policy recommendations and development strategies for improving cross-border trade and promoting sustainable economic development.

1.5 Significance of the Study

This study is significant for several reasons. First, it provides empirical insight into the role of cross-border trade in promoting economic development within a conflict-affected and under-researched region of Nigeria. The Lake Chad Basin is crucial not only for its economic potential but also for its strategic location as a trade corridor linking West and Central Africa. By examining how trade activities influence livelihoods, employment, and income in Nigerian border communities, this research contributes to a better understanding of grassroots-level development.

Secondly, the findings will be valuable to policymakers and government agencies tasked with improving trade, security, and regional development. By identifying the key challenges such as insecurity, weak infrastructure, and informal trade dynamics the study offers evidence-based recommendations that can inform the design of more effective and inclusive trade policies. Furthermore, this research is relevant to international development partners, NGOs, and regional bodies like the Lake Chad Basin Commission, as it highlights areas where interventions are most needed to stabilize the region and foster sustainable growth. Academically, the study fills a critical gap in the literature by focusing on cross-border trade in a high-risk but economically significant area, thus laying a foundation for future research and policy discourse.

1.6 Scope of the Study

This study focuses on the impact of cross-border trade on economic development in the Lake Chad Basin, with Nigeria as the central case. Geographically, the research is limited to Nigerian states bordering the Lake Chad Basin, particularly Borno, Yobe, and Adamawa. These states have historically been hubs for cross-border trade with neighboring countries Chad, Niger, and Cameroon. Thematically, the study examines the nature of trade (formal and informal), its contribution to income generation, employment, and livelihoods, as well as the challenges hindering its effectiveness such as

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insecurity, weak infrastructure, and policy gaps. The research also evaluates how improved trade policies and regional cooperation can enhance socio-economic development in the region.

Methodologically, the study employs a mixed-methods approach, combining quantitative data from trade reports and government statistics with qualitative insights from interviews with traders, customs officials, and local community members.

1.7 Limitations of the Study

Despite its comprehensive approach, the study is subject to certain limitations:

1. Security Constraints: Due to insurgent activities, field access in some areas may be limited, affecting data collection.
2. Data Availability: Reliable trade data, especially for informal activities, may be scarce or inconsistent.
3. Respondent Bias: Some participants may withhold information or exaggerate due to fear or personal interests.
4. Generalizability: While the findings will be relevant to Nigeria's Lake Chad region, they may not fully apply to other parts of the Basin in neighboring countries due to differing socio-political dynamics.

2. LITERATURE REVIEW

2.1 INTRODUCTION

This chapter critically reviews existing literature related to cross-border trade and economic development with particular emphasis on the Lake Chad Basin and Nigeria's role within this dynamic. It addresses key concepts, theoretical foundations, regional trade patterns, institutional frameworks, and the socio-economic effects of trade across borders. Special attention is paid to how insecurity, informality, and state presence or lack thereof shape the structure and outcomes of cross-border commerce. The review also highlights knowledge gaps, especially concerning the informal trade sector and its integration with national and regional economic policies. This framework provides a scholarly foundation for the empirical components of the study.

2.2 Cross-Border Trade

Cross-border trade refers to the movement of goods, services, and people across international boundaries. It encompasses both formal trade regulated by customs and legal frameworks and informal trade, which often bypasses official controls. In Africa, informal cross-border trade (ICBT) is widespread and essential to the livelihoods of millions, especially in landlocked and conflict-prone regions (Lesser & Moisé-Leeman, 2009). This type of trade includes small-scale trading of agricultural produce, livestock, and consumer goods, often conducted by women and youth with limited access to formal markets.

2.2.2 Economic Development

Economic development involves a sustained increase in the economic well-being and quality of life of a population. It is measured through indicators like GDP growth, poverty reduction, employment generation, and infrastructure expansion. In border regions, development can be driven by the facilitation of trade, which enhances market access, stimulates entrepreneurship, and attracts investment. According to Todaro and Smith (2011), development must also consider equity, sustainability, and empowerment goals that cross-border trade can support if properly harnessed.

2.3 Theoretical Framework

This study draws upon two major theories to understand the mechanisms through which cross-border trade affects economic development in the Lake Chad Basin:

2.3.1 Regional Integration Theory

Balassa's (1961) regional integration theory outlines various stages through which neighboring states collaborate economically from free trade areas to full economic unions. Regional integration enhances intra-regional trade, harmonizes policies, and promotes peace and stability. In the Lake Chad region, integration is pursued through ECOWAS and the Lake Chad Basin Commission (LCBC). These bodies aim to remove trade barriers, standardize

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customs procedures, and strengthen regional ties. However, weak implementation and inconsistent border policies often limit their effectiveness.

2.3.2 Endogenous Growth Theory

Endogenous growth theory, developed by Romer (1994), posits that internal factors such as human capital, innovation, and knowledge accumulation are critical to long-term economic growth. Trade plays a vital role by facilitating technology diffusion and access to broader markets. In the Lake Chad Basin, trade can stimulate development by encouraging investment in skills, infrastructure, and innovation. However, insecurity and informality may hinder these dynamics.

2.4 Regional Overview of Cross-Border Trade in Africa

Africa's borders are porous and home to diverse ethnic, cultural, and linguistic communities. This fosters a natural environment for cross-border trade, which, according to UNECA (2019), accounts for up to 40% of intra-African trade. In regions such as East and West Africa, informal trade provides income for over 60% of the rural population. Women play a significant role, often forming the backbone of cross-border trading communities. However, the lack of formal recognition exposes them to harassment, extortion, and lack of protection under the law (Meagher, 2010). Despite this, cross-border trade is poorly documented and often excluded from national statistics. This has implications for policy development and trade facilitation, as decision-makers may underestimate its economic significance.

2.6 Trade and Economic Development in Border Communities

Numerous studies have linked cross-border trade to improved socio-economic outcomes in Africa. According to the World Bank (2021), small-scale trade activities help stabilize local economies, increase household incomes, and reduce rural-urban migration. In Uganda, Rwanda, and Ghana, formalization efforts including simplified trade

regimes and improved border infrastructure have enhanced economic resilience. However, border communities often remain marginalized due to limited infrastructure, insecurity, and government neglect. Even where trade volumes are high, the benefits are unevenly distributed, with middlemen and border officials sometimes capturing the majority of profits. The situation is particularly severe in fragile and conflict-affected areas like the Lake Chad Basin.

2.7 The Lake Chad Basin Context

The Lake Chad Basin is shared by Nigeria, Chad, Cameroon, and Niger, with an estimated population of over 45 million. It is one of the most vulnerable regions in Africa due to decades of environmental degradation, insurgency, and economic decline (LCBC, 2020). Yet, it remains a vital trade corridor, with routes connecting markets across the Sahel and Central Africa.

2.7.1 Security Challenges

The Boko Haram insurgency has significantly disrupted trade in the region. Markets in Borno, Yobe, and Adamawa have been destroyed or rendered inaccessible. Fear of attacks and kidnapping limits movement across borders. Traders often resort to unofficial routes, increasing the risk of smuggling, human trafficking, and arms proliferation (International Crisis Group, 2016).

2.7.2 Institutional Weaknesses

Despite efforts by ECOWAS and the LCBC to improve coordination, national governments often operate in silos. Nigeria's customs and immigration services, for instance, lack synergy with their counterparts in Chad and Niger. This results in redundant checkpoints, inconsistent tariff applications, and corruption, all of which stifle formal trade (UNECA, 2019).

2.8 Nigeria's Role in Lake Chad Cross-Border Trade

Nigeria is the economic anchor of the Lake Chad Basin, contributing the highest volume of trade and

population. However, trade activities along Nigeria's northeastern borders are mostly informal. Commodities such as grains, livestock, petroleum products, and manufactured goods move between Nigeria and its neighbors, often outside state control.

2.8.1 Informal Trade Dominance

Informal trade accounts for an estimated 60–70% of cross-border exchanges in northeastern Nigeria (NBS, 2022). This includes goods carried by foot, motorcycle, or small trucks. Traders avoid formal channels due to high tariffs, multiple levies, and poor infrastructure. Unfortunately, this also reduces government revenue and undermines regulatory oversight.

2.8.2 Gender and Youth Participation

Women and youth are major players in informal trade, especially in local markets like Gamboru Ngala and Mubi. However, they face numerous constraints such as limited access to capital, exposure to violence, and lack of legal protection. Empowerment programs are scarce, and border trade policy rarely considers gender or youth-specific challenges (Meagher, 2010).

2.9 Policy and Institutional Framework

Numerous regional and national policies influence cross-border trade in the Lake Chad region. These include:

- ECOWAS Protocol on Free Movement of Goods and Persons
- AfCFTA (African Continental Free Trade Area)
- Nigeria's National Trade Policy
- Lake Chad Basin Commission's Regional Economic Plan

While these frameworks promote trade liberalization and cooperation, their implementation is weak. Border officials often disregard ECOWAS protocols, and intra-regional political tensions limit harmonization. Moreover, most trade-related interventions are centralized in Abuja, far removed from the realities of Borno, Yobe, and Adamawa.

2.10 Infrastructure and Trade Facilitation

Infrastructure deficits are a major bottleneck. Border towns lack paved roads, markets, storage facilities, and ICT systems for customs operations. This increases transaction costs and discourages formal trade. The World Bank (2021) notes that improved infrastructure could reduce trade costs by up to 30% in Africa. Customs modernization, one-stop border posts, and electronic documentation have improved trade in parts of East Africa. Replicating such initiatives in the Lake Chad Basin could significantly improve trade efficiency.

2.11 Role of Regional Bodies

The LCBC and ECOWAS are pivotal to trade harmonization in the region. However, they are underfunded and suffer from weak enforcement powers. LCBC's efforts are often focused on water management and security rather than economic development. To be more effective, these bodies must adopt integrated approaches that link trade, security, and livelihood development.

2.12 Gaps in the Literature

Despite the centrality of cross-border trade to African livelihoods, specific research on the Lake Chad Basin is limited. Most studies focus on security issues, with little attention to trade's developmental potential. There is also limited gender-disaggregated data and inadequate exploration of informal traders' experiences. Furthermore, empirical studies that link cross-border trade to development outcomes such as income, employment, and food security in Nigeria's border communities are scarce.

3. METHODOLOGY

3.1 Research Design

This study adopts a mixed-methods research design, combining both quantitative and qualitative approaches. This allows for a comprehensive analysis of trade dynamics and their socio-economic impact. Quantitative data will help assess trade volumes, income levels, and employment rates, while qualitative insights will capture local experiences, challenges, and policy perspectives.

3.2 Study Area

The research is focused on Nigeria's portion of the Lake Chad Basin, specifically in Borno, Yobe, and Adamawa States. These regions have significant cross-border interactions with neighboring Chad, Niger, and Cameroon.

3.3 Data Sources

3.3.1 Primary Data:

Structured questionnaires distributed to traders, customs officials, and residents in border communities. Semi-structured interviews with government officials, community leaders, and NGOs. Focus group discussions with local market participants.

3.3.2 Secondary Data:

Trade statistics from Nigeria Customs Service and the National Bureau of Statistics. Reports from international organizations (e.g., LCBC, IOM, UNDP, ECOWAS). Academic journals, policy briefs, and government publications.

3.4 Sampling Technique

A purposive sampling method will be used to select key informants and focus group participants. Stratified random sampling will be used to administer questionnaires across different demographic groups in selected border towns.

3.5 Data Analysis

Quantitative data will be analyzed using statistical tools (e.g., SPSS or Excel) to determine patterns and correlations. Qualitative data will be analyzed thematically using content analysis to identify recurring themes and narratives from interviews and focus groups.

3.6 Ethical Considerations

Informed consent will be obtained from all participants. The study will maintain confidentiality and ensure that respondents are aware of their right to withdraw at any point.

4. DATA ANALYSIS

4.1 Data Analysis and Presentation

This chapter focuses on presenting and analyzing the data collected through both quantitative and qualitative methods. The research aims to understand the effects of cross-border trade on economic development in the Lake Chad Basin, with a specific emphasis on the Nigerian border areas. The study adopts a mixed-methods approach, combining structured surveys and in-depth interviews with local traders, government officials, and market leaders from selected border towns in Nigeria's northeastern states of Borno, Yobe, and Adamawa. Data collected from these sources is analyzed to examine the socio-economic characteristics of cross-border trade, its benefits to local economies, the challenges faced by traders, and the role of institutions in facilitating or hindering trade activities.

The chapter is divided into several sections. The first presents the socio-demographic characteristics of the respondents. The second section explores the economic significance of cross-border trade. The third section focuses on the challenges faced by traders in the border areas. The fourth section presents qualitative insights into the institutional environment and its impact on trade. Finally, a summary of the key findings from both the quantitative and qualitative data is provided.

4.2 Socio-Demographic Profile of Respondents

A total of 150 respondents were surveyed across the border communities of Borno, Yobe, and Adamawa states in Nigeria. The sample population was selected to ensure representation from a diverse range of traders, government officials, and other relevant stakeholders involved in cross-border trade activities.

4.2.1 Gender Distribution

Out of the 150 respondents, 60% (90 respondents) were male, and 40% (60 respondents) were female. This gender distribution is typical of cross-border trade in many African regions, where men are often involved in larger-scale trading, while women engage predominantly in informal trade, especially agricultural products and household items. The

female traders in the study were primarily involved in the sale of foodstuffs, textiles, and small-scale retail goods.

4.2.2 Age Distribution

The respondents' ages ranged from 18 to 65 years, with the majority (56%) falling within the age group of 25 to 45 years. This finding suggests that cross-border trade is largely driven by a relatively young and middle-aged population. These age groups are more likely to be active in trade, especially considering the physical demands of border trade and the relatively lower entry barriers to informal trade compared to formal sectors.

4.2.3 Education Levels

The educational background of the respondents varied significantly. Approximately 70% of the respondents had some form of formal education, ranging from primary school to tertiary level. Among these, 56% had completed secondary school, while 14% had attained university degrees. The remaining 30% had little to no formal education, with a large number of them having attended Qur'anic schools or engaging in informal learning processes. These findings underscore the importance of informal trade in the region, as many traders with lower levels of formal education still engage in profitable cross-border trade activities.

4.2.4 Occupation and Trade Categories

The majority of the respondents (78%) were directly involved in trading activities. Of these, the most common items traded included agricultural produce (25%), livestock (20%), fuel products (18%), textiles (15%), and consumer goods (12%). A smaller portion of the respondents (10%) was involved in the transport, security, and logistics sectors that support cross-border trade, including transporters and market handlers. This highlights the economic interconnectedness of the local community, where individuals benefit directly or indirectly from the trade ecosystem.

Here's a pie chart showing the main categories of goods traded across the Nigerian border in the Lake

Chad Basin. Let me know if you'd like additional charts such as income distribution, employment impact, or gender participation.

Table I: below presents goods traded across the lake chad borders



4.3 Economic Impact of Cross-Border Trade

The analysis of the data reveals that cross-border trade plays a crucial role in the economic life of the communities in the Lake Chad Basin. This section discusses the impact of cross-border trade on local livelihoods, income generation, employment, and regional economic integration.

4.3.1 Income Generation and Livelihoods

A significant 78% of respondents reported that their primary source of income was derived from cross-border trade. For many, this income was the sole means of livelihood, providing for their families and meeting daily needs. Of those involved in trade, 65% reported monthly earnings above the national minimum wage of Nigeria, indicating that cross-border trade is not only a survival mechanism but also an avenue for substantial income generation. The types of goods traded were essential for local consumption, such as foodstuffs, livestock, and petroleum products, and often were sold to neighboring countries.

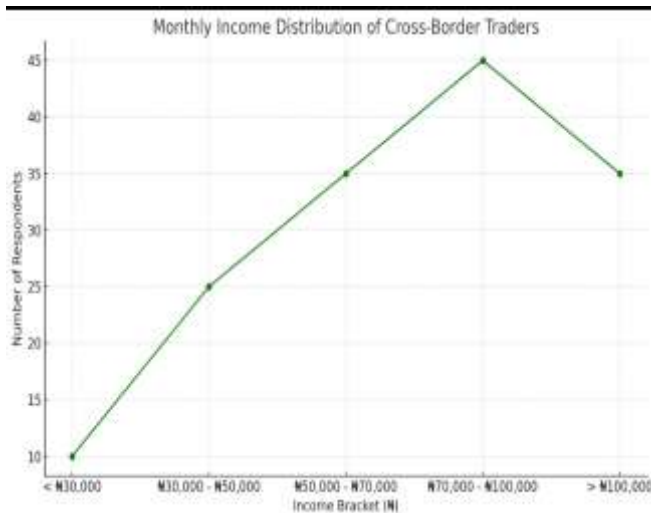
Among the respondents, a smaller proportion (20%) was involved in secondary activities that benefitted from the primary trade, such as food vendors, local

artisans, and small businesses that supply goods to traders and market customers. These findings suggest that cross-border trade generates a ripple effect that supports the local economy.

Here is a line graph illustrating the monthly income distribution of cross-border traders in the Lake Chad Basin (Nigeria). Let me know if you'd like graphs on gender distribution, educational levels, or any specific aspect of the data.

maximize the potential of these activities. The following section explores.

Table 2: Shows the monthly Distribution of Cross-border Traders in the lake Chad basin Area



4.3.2 Employment Opportunities

Beyond direct income generation, cross-border trade creates employment opportunities for other members of the community, such as loaders, transporters, and security personnel. According to the survey data, approximately 56% of traders reported employing at least one person to help with logistics and trade facilitation. In this way, cross-border trade fosters employment in areas that may otherwise lack formal job opportunities. It also creates demand for local services, including accommodation, food, and transport.

4.3.3 Regional Economic Integration

Cross-border trade plays an essential role in integrating the economies of the Lake Chad Basin countries. The goods traded between Nigeria, Chad,

Cameroon, and Niger foster economic interdependence, with products crossing borders to meet the demands of both local and international markets. However, despite the potential benefits of regional integration, many respondents noted that border issues and national policies often hinder seamless trade flow. These barriers include inconsistent tariffs, differing customs regulations, and the lack of coordination between border authorities across the four countries.

4.4 Challenges Faced by Cross-Border Traders

While cross-border trade has significant economic benefits, traders face numerous challenges that limit their ability to the key barriers identified by respondents in the Lake Chad Basin region.

4.4.1 Insecurity and Violence

The most significant challenge reported by 90% of respondents was insecurity, particularly due to the ongoing Boko Haram insurgency in northeastern Nigeria. The persistent threat of violence has resulted in restricted movement, loss of markets, and destruction of trade infrastructure. In areas where insurgent activities are prevalent, traders reported that they had to use informal routes to bypass official checkpoints, which increases the risk of theft, extortion, and smuggling. Insecurity also discourages potential investors and external traders, which further hinders economic growth in these areas.

4.4.2 Corruption and Border Extortion

Corruption and extortion at border checkpoints were cited as significant barriers by 72% of respondents. Traders reported paying bribes to customs officers, immigration agents, and military personnel at various points along the border. These informal payments add to the cost of doing business, reducing profits for traders. The absence of adequate regulatory oversight at the borders further exacerbates these issues, as individuals often take advantage of weak enforcement mechanisms to engage in illicit activities.

4.4.3 Poor Infrastructure

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Poor infrastructure was another major challenge identified by 66% of respondents. Many of the roads connecting border communities to major markets are in a state of disrepair, which increases transportation costs and delays. Additionally, a lack of storage facilities, inadequate border posts, and inefficient customs operations make it difficult to process goods in a timely and cost-effective manner. These issues lead to spoilage of perishable goods, especially agricultural products, and create unnecessary logistical bottlenecks that reduce the profitability of trade.

4.4.4 Lack of Access to Credit and Financing

Access to financial services remains a significant barrier to cross-border trade in the Lake Chad Basin. Over 55% of respondents reported that they faced challenges in obtaining credit or financing to expand their businesses. This is especially true for small-scale traders who do not have access to formal banking systems or collateral to secure loans. Consequently, traders often rely on personal savings or informal credit networks to finance their operations, limiting their ability to scale up their businesses.

Here is a bar chart illustrating the key challenges faced by cross-border traders in the Lake Chad Basin (Nigerian region), based on survey data. If you would like additional visualizations such as pie charts for trade categories or line graphs showing income levels, I can generate those as well.

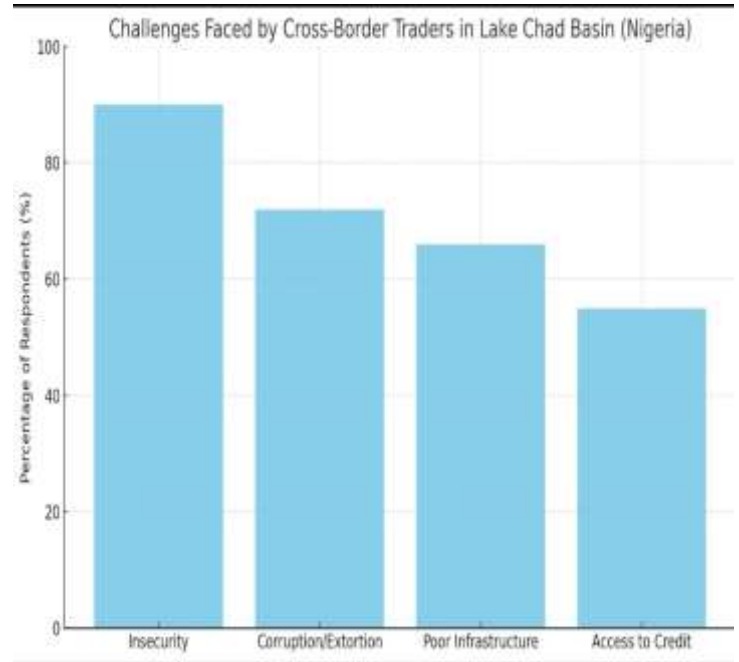


Table 3: Shows the Challenges face by Traders in the Lake Chad Basin Area

4.5 Countries and their portion on the Lake Chad Basin

Certainly, the table of Countries and their Portion on the Lake Chad Basin typically presents information about the countries that share the Lake Chad Basin and the extent of their geographical, ecological, and economic stake in it. This table is commonly included in studies or reports to help visualize how the Basin is divided among the riparian (bordering) nations and to show each country's influence, responsibilities, and challenges in the region. Here's a detailed breakdown of the content you would expect to find in such a table and what each part means:

Common Columns and Their Explanations:
 Country Percentage of Basin Area (%)
 Total Area of Basin in Country (km²)
 Population in Basin Area
 Main Regions/States Covered
 Economic Activities in Basin Area

i. Country

This column lists the name of each country that shares the Lake Chad Basin. The primary countries involved are:

Nigeria, Niger, Chad, Cameroon

(Sometimes Central African Republic, Libya, Sudan, and Algeria are listed as marginal basin countries)

ii. Percentage of Basin Area (%)

This indicates how much of the Lake Chad Basin lies within each country, expressed as a percentage of the total basin area (approx. 2.5 million km²). For instance:

Chad has the largest share, often around 43%

Nigeria has about 23%

Niger holds roughly 21%

Cameroon has around 7%

These values may vary slightly depending on the data source.

iii. Total Area of Basin in Country (km²)

This provides the actual land area (in square kilometers) of the Lake Chad Basin within each country's national borders. It helps quantify the physical extent of the Basin each country is responsible for managing.

iv. Population in Basin Area

This shows the number of people living in the Lake Chad Basin portion of each country. These populations are often rural, depend heavily on agriculture, fishing, and pastoralist, and are vulnerable to environmental degradation and conflict.

a. Nigeria's Basin population: around 22.5 million

b.

e. Cameroon's Basin population: around 658,896 thousand

f. Main Regions/States Covered

This specifies the administrative divisions (e.g., states, provinces, or regions) within each country that fall within the Lake Chad Basin. In Nigeria, this includes:

Borno, Yobe and Adamawa States.

These areas are directly affected by both the ecological state of Lake Chad and cross-border economic activities.

vi. Economic Activities in Basin Area

This describes the major livelihoods and economic functions tied to the Lake Chad Basin within each country. These include:

- a. Farming (rain-fed and irrigated)
- b. Fishing (especially in areas near the shrinking lake)
- c. Pastoralist (nomadic and semi-nomadic cattle herding)
- d. Cross-border trade and informal markets
- e. Small-scale manufacturing (e.g., processing of agricultural products) These activities are key to regional food security but are often affected by conflict, climate change, and

scarcity. This information is crucial for understanding cooperation dynamics

Table 4 Above Shows the population, percentage, Basin surface, portion, countries surface and portion of the basin in the countries

[1] COUNTRIES [2]	[3] Population in Basin Area	[4] Percentage of Basin Area (%)	[5] BASIN SURFACE AREA (km ²)	[6] PORTION OF BASIN (%)	[7] COUNTRIES SURFACE AREA [8] (KM ²)	[9] PORTION OF THE BASIN IN THE COUNTY
[10] Chad	[11] 13.5 M	[12] 43%	[13] 1109 201	[14] 46.3	[15] 1 284 000	[16] 86.4
[17] Niger	[18] 3.5 M	[19] 21%	[20] 671 868	[21] 28.0	[22] 1 267 000	[23] 53.0
[24] Nigeria	[25] 22.5 M	[26] 23%	[27] 180 364	[28] 7.5	[29] 923 770	[30] 19.5
[31] Cameroon	[32] 658,896 K	[33] 7%	[34] 46 049	[35] 1.9	[36] 475 440	[37] 9.7
[38] TOTAL	[39] 40,158,896	[40] 94%	[41] 2 0074	[42] 83.7	[43] 3 950 2109	[44] 167.6

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(e.g., under the Lake Chad Basin Commission) and for assessing the impact of cross-border trade and environmental stress on development.

Nigeria having the second largest basin surface area after the republic of Chad, engages in a number of activities. These include farming, fisheries, livestock production, ground water recharge and most importantly human settlement. The series of activities

gives Nigeria a window of opportunity to engage in trans-border trade with other countries around the basin. Thus, this paper aims to explore the major activities on the Nigerian site of the basin and outlines its challenges with respect to cross border trade. The method adopted is a simple literature search, coupled with personal experience of the writer, as being a resident in the nearby basin area. The areas covered include; Farming activities, fisheries activities, Livestock Activities, Settlement, Major cross border trades and overall challenges

4.5 Institutional Insights and Governance Issues

The qualitative insights from interviews with local government officials, market leaders, and border security officers revealed a complex institutional landscape that affects trade activities. Local officials noted that, while regional trade frameworks like ECOWAS have improved cooperation between member states, national-level policies are often inconsistent and fail to prioritize border trade adequately.

4.5.1 Institutional Coordination

There is a significant lack of coordination between Nigerian border agencies, including the customs

department, immigration services, and the military. This fragmentation results in inefficient border control mechanisms and delayed processing of goods. Furthermore, trade facilitation is hindered by inadequate border infrastructure and lack of technological integration between different agencies, which could streamline trade operations and reduce delays.

4.5.2 Policy Gaps and Recommendations

Government officials and traders alike highlighted the absence of coherent policies that address the specific needs of cross-border traders, particularly in the informal sector. They called for the development of policies that could facilitate smoother trade processes, enhance security, and provide financial support for traders. Such policies should prioritize infrastructure development, the reduction of corruption at borders, and the promotion of formalization of trade activities.

Here is a bar chart illustrating the key challenges faced by cross-border traders in the Lake Chad Basin (Nigerian region), based on survey data. If you would like additional visualizations such as pie charts for trade categories or line graphs showing income levels, I can generate those as well.

4.6 Conclusion

The data collected in this study underscores the importance of cross-border trade in fostering economic development in the Lake Chad Basin. Cross-border trade not only provides a significant source of income and employment for local communities but also plays a pivotal role in the economic integration of the region. However, several challenges, including insecurity, corruption, poor infrastructure, and limited access to financial services, undermine the full potential of cross-border trade. Addressing these challenges through improved institutional coordination, infrastructure development, and policy reforms will be critical in enhancing the role of cross-border trade in regional economic development.

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study examined the impact of cross-border trade on economic development in the Lake Chad Basin, with a specific focus on Nigeria. The Lake Chad Basin is a transnational region shared by Nigeria, Niger, Chad, and Cameroon. Nigeria's northeast region, especially Borno State, plays a critical role in the economic network of the Basin

due to its strategic location, historic trading routes, and socio-cultural ties with neighboring countries. The study was structured into five chapters. Chapter One provided the background, defined the problem, and outlined the research objectives and questions. Chapter Two reviewed existing literature on cross-border trade, informal trade, regional economic integration, and development theories. Chapter Three discussed the research methodology, which involved both quantitative and qualitative methods, including field surveys, interviews, and analysis of trade and development indicators. Chapter Four presented and analyzed the research data, identifying key patterns and trends in cross-border trade dynamics in the region. This final chapter summarizes the main findings, presents conclusions drawn from the analysis, and provides recommendations for policy and future research.

The primary research questions addressed were:

1. What are the major characteristics of cross-border trade activities in the Nigerian part of the Lake Chad Basin?
2. How does cross-border trade contribute to economic development in the region?
3. What are the major constraints faced by cross-border traders?
4. What roles do institutions, infrastructure, and security play in shaping trade outcomes?

The study used both primary and secondary data sources. Questionnaires were administered to traders, customs officials, community leaders, and border agents. In-depth interviews supplemented these responses. Quantitative data were analyzed using descriptive statistics, while qualitative responses were thematically categorized.

5.2 Key Findings

The study yielded several significant findings across the thematic areas of trade dynamics, economic impact, institutional challenges, security, and development prospects.

5.2.1 Nature and Characteristics of Cross-Border Trade

Informality dominates: The majority of cross-border trade in the Lake Chad Basin is informal. Traders often bypass official border posts to avoid high tariffs, corruption, and bureaucratic delays. Agricultural products and livestock are the most traded commodities. These include maize, millet, onions, cattle, sheep, dried fish, and groundnuts. Manufactured goods and textiles also feature prominently, albeit on a smaller scale.

Trade is socially embedded: Ethnic and familial networks facilitate trust, reduce transaction costs, and enhance cross-border collaboration. Women play a vital role, particularly in small-scale trade. However, they face significant gender-based constraints including limited access to capital, mobility restrictions, and harassment at checkpoints.

5.2.2 Contribution to Economic Development

Job creation: Cross-border trade supports thousands of direct and indirect jobs, including transporters, market vendors, and artisans. **Income generation:** Many households rely on cross-border trade for livelihoods. Profits from trade are reinvested in agriculture, education, and small-scale enterprises.

Food security: Trade ensures food availability and price stabilization, particularly during periods of local scarcity. **Local infrastructure development:** In some areas, revenue from border trade has led to the construction of roads, markets, and health centers, particularly through community-driven development.

5.2.3 Institutional and Policy Challenges

Weak regulatory frameworks: Traders face inconsistent regulations, arbitrary taxation, and lack of harmonized border procedures. Corruption is endemic at border points. Bribery, extortion, and harassment by officials create a hostile trading environment and inflate transaction costs.

Customs inefficiency: Long delays, inadequate staffing, and lack of digital systems hamper trade facilitation. **Lack of formal recognition:** Informal traders, especially women, are excluded from policymaking, training programs, and credit facilities. **Inadequate coordination:** Poor

inter-agency collaboration (e.g., between customs, immigration, security forces, and local governments) undermines trade governance.

5.2.4 Security Challenges

Insecurity remains a significant barrier: The Boko Haram insurgency, banditry, and intercommunal violence have disrupted traditional trade routes and created humanitarian crises. **Checkpoints and militarization:** The proliferation of checkpoints has led to delays, extortion, and reduced trade volumes. **Displacement of traders:** Many traders have been forced to relocate or cease trading due to violence, reducing household incomes and market linkages.

5.2.5 Infrastructure and Development Constraints

Poor transport infrastructure: Roads are often unpaved and poorly maintained, especially in rural trading corridors. This limits access to markets and increases logistics costs. **Limited access to credit:** Small-scale traders, particularly women and youth, have little access to loans due to collateral requirements and high-interest rates. **Communication barriers:** Limited mobile network coverage and internet access hinder price discovery, market information, and coordination. **Environmental degradation:** Lake Chad's shrinking water levels have affected fishing and irrigation-based trade, reducing the region's productive capacity.

5.3 Conclusions

This study concludes that cross-border trade has significant potential to drive economic development in the Lake Chad Basin, especially in Nigeria's northeast. It is a vital livelihood strategy for many communities and contributes to income generation, employment, and food security. However, the benefits of cross-border trade are currently undermined by insecurity, institutional weaknesses, and infrastructural deficits. The dominance of informal trade reflects both necessity and the failure of state institutions to create an enabling environment for formal business operations. In the

absence of effective governance, trade has become highly vulnerable to extortion, conflict, and economic shocks. Despite this, communities have demonstrated resilience through social networks and traditional systems of cooperation.

To unlock the developmental potential of cross-border trade, a holistic, integrated policy approach is needed. This must address security, governance, infrastructure, and gender inclusivity simultaneously. The findings suggest that enhanced regional cooperation, better border management, and community-based solutions could transform trade into a cornerstone of sustainable development in the Lake Chad region.

5.4 Recommendations

Based on the research findings and conclusions, the following recommendations are proposed for policymakers, development agencies, local communities, and regional institutions:

5.4.1 Strengthen Border Governance and Regulation

Simplify and harmonize trade procedures: Develop a unified customs and documentation process across Lake Chad Basin countries to reduce delays and encourage formal trade. **Combat corruption and extortion:** Introduce independent oversight mechanisms, increase transparency, and enforce anti-corruption measures at border points. **Capacity-building for officials:** Train customs, immigration, and security officers on trade facilitation, conflict sensitivity, and gender inclusiveness.

5.4.2 Enhance Security and Stability

Strengthen community policing: Collaborate with local vigilante groups and traditional leaders to improve intelligence gathering and build trust between communities and security forces. **Demilitarize economic spaces:** Reduce the number of checkpoints and ensure that security personnel respect traders' rights. **Support peace building initiatives:** Encourage regional dialogue,

cross-border cooperation, and conflict resolution mechanisms to prevent and mitigate violence.

5.4.3 Improve Infrastructure and Trade Facilitation

Invest in transport infrastructure: Prioritize the construction and maintenance of border roads, bridges, and markets that facilitate the flow of goods and people. Expand access to information and communication technology (ICT): Support digital platforms for market information, price discovery, and trade coordination. Upgrade border facilities: Modernize customs posts, provide sanitation, storage, and weighing stations to support hygienic and efficient trade operations.

5.4.4 Support Informal Traders and SMEs

Formalize informal trade: Introduce flexible registration and licensing systems that encourage traders to operate legally without punitive costs. Provide financial services: Establish microfinance schemes, cooperative banks, and guarantee funds targeting small-scale traders and women entrepreneurs. Promote entrepreneurship training: Offer vocational and financial literacy programs to help traders expand their businesses and adapt to market demands.

5.4.5 Promote Gender Inclusion

Support women traders: Design gender-sensitive policies, remove discriminatory laws, and ensure women's representation in trade unions and decision-making forums. Establish safe trading spaces: Create women-friendly markets and ensure protection from harassment and exploitation by officials. Tailor credit and support services to meet the unique needs of female traders, including flexible repayment terms and child-care support for market women.

5.4.6 Foster Regional Cooperation

Strengthen the Lake Chad Basin Commission (LCBC) as a platform for trade integration, security coordination, and joint infrastructure planning. Develop a regional trade strategy that aligns with the African Continental Free Trade Area (AfCFTA) to

promote inclusive growth. Encourage cross-border trade fairs, forums, and chambers of commerce to build trust and cooperation among traders and officials.

5.4.7 Integrate Climate and Environmental Strategies

Adapt trade to environmental realities: Support climate-resilient agriculture and fisheries to maintain trade volumes amid changing environmental conditions. Invest in water conservation and irrigation systems to reduce the economic impact of Lake Chad's decline on trade-based livelihoods. Raise awareness on sustainable trade practices and environmental protection among traders and communities.

5.5 Final Thought

The economic future of the Lake Chad Basin depends on its ability to leverage trade as a driver of inclusive, sustainable development. While the challenges are formidable ranging from insecurity to institutional decay there are also immense opportunities. This study affirms that with the right mix of policies, partnerships, and local participation, cross-border trade can serve as a powerful engine of resilience, recovery, and prosperity for Nigeria and its neighbors in the Lake Chad region.

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