

Original Research Article

Impact of Forest Loss in Some Selected Communities in Ussa Local Government Area, Taraba State, Nigeria

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Abstract: This study examines the impact of forest loss in selected communities within the Ussa Local Government Area (LGA) of Taraba State, Nigeria. Employing a mixed-method approach including structured questionnaires, interviews, and field observations, the research assesses the extent, causes, and socio-economic consequences of deforestation. Findings reveal that farming, urbanisation, and logging are the primary drivers of forest depletion, with timber and non-timber forest products being vital resources exploited by local residents. The impacts include livelihood loss, increased soil erosion, environmental degradation, and threats to sustainable development. The study underscores the need for community-based conservation, alternative livelihoods, and effective policy enforcement to mitigate further forest loss and promote ecological resilience.

Keywords: Deforestation, Forest Conservation, Taraba State, Ussa Local Government Area, Sustainable Development

Introduction

Globally, deforestation has become a critical environmental concern, especially in tropical regions where large populations depend heavily on forest resources for their livelihoods. In Nigeria, deforestation is driven mainly by agricultural expansion, logging, urbanisation, and fuelwood collection, leading to significant ecological and socio-economic challenges (FAO, 2021; UNEP, 2022). Forests play vital roles in maintaining biodiversity, regulating climate, preventing soil erosion, and supporting local economies through the provision of timber, medicinal plants, and food.

In Ussa LGA of Taraba State, these challenges are increasingly evident. The local communities depend on forests for energy, shelter, and income, but unsustainable

exploitation has led to deforestation, soil degradation, and loss of biodiversity. Despite this, there is limited empirical data on the extent and impact of forest loss in this area, hindering effective policy formulation and community engagement.

This study aims to fill this gap by assessing the causes, extent, and socio-economic impacts of deforestation in selected communities within Ussa LGA.

Materials and Methods

Study Area

Ussa LGA, situated in southern Taraba State, Nigeria, covers approximately 1,495 km² with an estimated population of 154,000 residents (2024 projection). The region has a tropical climate with savannah and forest vegetation, experiencing distinct dry and rainy seasons. The landscape comprises undulating plains and Riverine zones, which are increasingly threatened by deforestation and land degradation (Daskum et al., 2020).

Sampling Procedure

A multi-stage sampling technique was employed. Initially, six wards, Fikyu, Lumbu, Rufu, Kwesati, Kpambo, and Kpambo Puri were randomly selected. From each ward, 20 farmers were purposively sampled, totaling 120 respondents. The selection aimed to represent community members actively engaged in forest-dependent activities.

Data Collection

Primary data were collected via structured questionnaires, interviews, and field observations. The questionnaires captured socio-demographic information, perceptions of deforestation, causes, and impacts. Additionally, observations documented land use changes and forest conditions. Data were analysed using descriptive statistics, primarily percentages, to elucidate patterns and perceptions.

Results and Discussion

Demographic Factors of the Respondents

Gender Distribution:

The majority of respondents are male (62.5%), which aligns with recent studies emphasizing gender disparities in rural land-use activities. For example, Owuoye and Oladele (2020) highlight that men often dominate farming and forest resource collection in Nigerian rural communities, due to socio-cultural norms that restrict women's access to land and forest resources. This male dominance could influence the perception and management of forest resources, potentially skewing conservation efforts towards male-led initiatives.

Age Distribution:

Most respondents fall within the 41-50 years age bracket (37.5%), followed by the 51-60 years group (29.2%). This suggests a predominantly mature and experienced demographic, which is consistent with findings by Akinbami et al. (2019), who note that middle-aged adults tend to have more influence on land management decisions. Their perceptions are likely shaped by long-term interactions with forest resources, which can

either promote sustainable practices or, conversely, reinforce exploitative behaviors if driven by economic necessity.

Religious Composition:

An overwhelming majority of the population is Christian (97.5%), with a small Muslim minority (2.5%). Although religion may not directly determine forest resource use, religious beliefs and values can shape attitudes toward environmental conservation. For example, Christian teachings on stewardship of creation, as reflected in Genesis 2:15 -“The Lord God took the man and put him in the Garden of Eden to work it and take care of it”- can be leveraged to promote forest preservation and sustainable resource management within Christian communities.

Educational Level:

A significant proportion of respondents (39.2%) have a tertiary education, and 25% have a secondary education. This relatively high education level may correlate with increased awareness of environmental issues, aligning with the findings of Eze and Okorie (2020), who assert that higher education levels are associated with greater environmental consciousness. However, despite awareness, economic pressures might still drive unsustainable exploitation, as noted by Ojo and Adegbe (2021).

Marital Status and Household Size:

Most respondents are married (69.2%), with household sizes predominantly between 5 and 8 members (51%). Large family sizes often intensify resource demand, which can lead to increased forest exploitation for energy, food, and income, supporting the findings of Olayemi et al. (2022), who link household size to resource consumption patterns.

Occupation:

Farming dominates as the primary occupation (45.8%), consistent with national statistics (NBS, 2020) indicating agriculture's central role in rural Nigeria. Such dependence on farming increases pressure on forest land, as corroborated by Siyan and Adedeji (2021), who highlight agriculture as a major driver of deforestation in Nigeria.

Duration of Residency

A large majority have lived in the community for over 16 years (66.7%), suggesting deep-rooted land-use practices and perceptions. Long-term residents often have well-established relationships with local forests, which can influence their attitudes toward conservation or exploitation.

Table 1: Demographic Factors of the Respondents

Variable/group	Frequency	Percentage (%)
Sex		
Male	75	62.5

Female	45	37.5
TOTAL	120	100
Age group		
20-30	9	7.5
31-40	22	18.3
41-50	45	37.5
51-60	35	29.2
60 above	9	7.5
TOTAL	120	100
Religious		
Muslim	117	97.5
Christian	3	2.5
TOTAL	120	100
Educational qualification		
No formal education	9	7.5
Primary school	25	20.8
Secondary school	30	25.0
Tertiary	47	39.2
TOTAL	120	100
Marital status		
Divorce	3	2.5
Widow	7	5.8
Widower	5	4.2
Married	83	69.2
Unmarried	22	18.3
TOTAL	120	100
House size		
1-4	35	35.0
5-8	61	51.0
8 above	24	14.0
TOTAL	120	
Major Occupation		
Unemployed	10	8.3
Farming	55	45.8
Hunting	15	12.5
Fishing	9	7.5

Civil servant	23	6.0
Artisanal	8	19.2
TOTAL	120	100
How long have you stayed in this community?		
1-5	3	2.5
6-10	13	10.8
11-16	24	20.0
16 above	80	66.7
Total	120	100

Source: Field survey 2026

Causes and Impacts of Deforestation

Farming and Building:

Studies such as Adebayo & Olawale (2022) identify farming (especially slash-and-burn agriculture) and construction as leading causes of deforestation in Nigerian rural communities. Their research indicates that subsistence farming and expanding settlements are primary drivers, aligning with the 25% (farming) and 19.2% (building) causes identified here.

Urbanization:

Ogunleye & Adeyemi (2024) observe that rapid urban growth in Nigeria exerts pressure on forest resources, accounting for nearly 20% of deforestation causes in their study, which closely matches the 19.4% reported in this survey.

Logging and Charcoal Production:

Logging (15.7%) and charcoal production (12.4%) are consistent with findings by Nwosu & Ijeoma (2021), who report that timber extraction and charcoal burning are significant contributors to forest degradation in Nigeria, driven by demand for construction materials and fuel.

Hunting and Grazing:

Though less prominent here, hunting (3.3%) and grazing (5%) are documented as minor but notable causes in rural areas by Adebayo & Olawale (2022), emphasizing that multiple activities collectively impact forests.

Forest Products Extracted:

The dominance of timber forest products (79.2%) supports findings by Eze & Nwankwo (2023), who state that timber is the most exploited forest resource due to its economic value and demand for construction and furniture.

Non-timber products (20.8%) include fruits, medicinal plants, and other resources, which are increasingly recognized for their role in local livelihoods (Ogunleye & Adeyemi, 2024).

Socio-economic Benefits & Livelihoods:

The data shows that forest resources serve as crucial sources of income (37.5%) and employment (37.5%), consistent with reports by Akintoye & Bello (2025), who highlight that rural communities depend heavily on forests for livelihood sustenance.

The contribution of forest products to household energy, food, and shelter materials (32.5%, 22.5%, and 31.7%, respectively) aligns with findings by Nwosu & Ijeoma (2021), emphasizing that forest exploitation directly supports basic needs.

Table 2: Causes and impacts of deforestation

Causes of Deforestation	Frequency	Percentage
Farming	30	25.0
Hunting	4	3.3
Logging	19	15.7
Building	23	19.2
Charcoal	15	12.4
Grazing	6	5.0
Urbanization	23	19.4
Total	120	100
Products extracted from the forests		
Timber Forest Products (TFPs)	95	79.2
Non-Timber Forest Products (NTFPs)	25	20.8
Total	120	100
Socio-economic benefits influencing		
Exploitation of forest resources		
Source of livelihoods	30	25.0
Source of income	45	37.5.
Source of employment	45	37.5
Total	120	100
Contribution of exploited forest resources		
to households' livelihood outcomes		
Household energy	39	32.5
Foodstuffs	27	22.5
Materials for shelter	38	31.7
Local craft materials	16	13.3

Total	120	100.0
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Source: Field survey, 2026

Conclusion

The study reveals that deforestation in selected communities within Ussa LGA of Taraba State, Nigeria, is a pressing issue with far-reaching socio-economic consequences. The findings suggest that farming, urbanization, and logging are the primary drivers of forest loss, leading to loss of biodiversity, soil erosion, and decreased access to clean water. The study highlights the need for sustainable forest management and conservation strategies to mitigate the impacts of deforestation on local communities. The government, local authorities, and stakeholders must collaborate to develop and implement effective policies and programs to prevent further forest loss and promote sustainable land use practices.

Recommendation:

Based on the findings of this study, the following recommendations are made:

1. **Establishment of Community Forest Reserves:** The government should establish community forest reserves in Ussa LGA to protect and conserve existing forests, promote sustainable forest management, and provide economic benefits to local communities.
2. **Sustainable Land Use Planning:** Local authorities should develop and implement sustainable land use plans that balance economic development with environmental conservation, ensuring that forests are protected and preserved for future generations.
3. **Education and Awareness:** Educational programs and campaigns should be launched to raise awareness among local communities about the importance of forest conservation, the impacts of deforestation, and the benefits of sustainable forest management.
4. **Stakeholder Engagement:** The government, local authorities, and stakeholders should engage in regular dialogue and collaboration to develop and implement effective policies and programs to prevent further forest loss and promote sustainable land use practices.
5. **Support for Sustainable Agriculture:** Support should be provided to farmers to adopt sustainable agriculture practices that promote soil conservation, reduce land degradation, and minimize the use of chemicals and other harmful substances.
6. **Reforestation and Afforestation:** Support programmes aimed at restoring degraded forest areas to enhance ecological resilience.
7. **Policy Enforcement:** Strengthen the enforcement of existing forestry laws and establish monitoring mechanisms to curb illegal logging and land encroachment.
8. **Alternative Livelihoods:** Promote eco-friendly income-generating activities such as agroforestry, ecotourism, and small-scale enterprises to reduce dependence on forest exploitation.

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