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Socioeconomic Implication of Fuel Wood Exploitation in Some Selected Communities of Gujba Local Government, Yobe State

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ABSTRACT
The study was intended to evaluate at the consequences of deforestation on rural household income. This study was guided by the following objectives; to find out the causes of deforestation in the study, to examine the consequences of rural house hold income, to determine the strategies of reducing deforestation.The study employed the descriptive and explanatory design; questionnaires in addition, to library and goggle research were applied in order to collect data. Primary and secondary data sources were used and data was analyzed using simple percentage which was presented in frequency tables percentage and charts. The respondent under the study were 50 including farmers, hunter staff of Agriculture and some staff of ministry of environment Yobe State. Study majorly focuses on the consequences of deforestation on rural house hold income. The study findings revealed that deforestation negatively affect rural house hold income in selected communities; commended that efforts should be made by the state and federal government as well as stakeholders in promoting tree planting and preservation. Increase investment in research, Education, training and extension services on deforestation and forestry to reduce deforestation. Proper policy and legislation enforcement together with forestry regulations will reduce deforestation drastically in the study area.
KEYWORDS:Deforestation, Communities, Environment, Commodities, Settlements.

I. BACKGROUND

Deforestation is the removal of a forest or stand of trees where the land is thereafter converted to a non-forest use (Kumar, Kumar, & Saikia, 2022). Examples of deforestation include conversion of forestland to farms, ranches, or urban use. Deforestation occurs for many reasons: trees are cut down to be used or sold as fuel (sometimes in the form of charcoal) or timber, while cleared land is used as pasture for livestock, plantations of commodities and settlements. The removal of trees without sufficient reforestation has resulted in damage to habitat, biodiversity loss and aridity. It has adverse impacts on bio sequestration of atmospheric carbon dioxide. (Adeola& Ojo, 2019).

Forests cover almost a third of the earth's land surface providing many environmental benefits including a major role in the hydrologic cycle, soil conservation, and prevention of climate change and preservation of biodiversity (Fakoya& Abegunde, 2021). Forest resources can provide long-term national economic benefits. For example, at least 145 countries of the world are currently involved in wood production (Bala & Abubakar, 2018).

Sufficient evidence is available that the whole world is facing an environmental crisis on account of heavy deforestation(Antonarakis, Pacca, & Antoniades, 2022). For years remorseless destruction of forests has been going on and we have not been able to comprehend the dimension until recently. Nobody knows exactly how much of the world's rainforests have already been destroyed and continue to be razed each year. Data is often imprecise and subject to differing interpretations. However, it is obvious that the area of tropical rainforest is diminishing as observed in the case of Odighi forest in Odighi Local government area of Edo State and the rate of tropical rain forest destruction is escalating worldwide, despite increased environmental activism and awareness. Deforestation is the conversion of forest to an alternative permanent non-forested land use such as agriculture, grazing or urban development (Murtala & Yakubu,2017).

Deforestation is primarily a concern for the developing countries of the tropics (Myers,

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2014) as it is shrinking areas of the tropical forests (Saka, Gujja, Alkali, Yau, Mairo, & Babagana, 2019). causing loss of biodiversity and enhancing the greenhouse effect (Lawal& Nasiru,2020). FAO considers a plantation of trees established primarily for timber production to be forest and therefore does not classify natural forest conversion to plantation as deforestation (but still records it as a loss of natural forests). However, FAO does not consider tree plantations that provide non-timber products to be forest although they do classify rubber plantations as forest. Forest degradation occurs when the ecosystem functions of the forest are degraded but where the area remains forested rather cleared (Nwankwo & Ibrahim, 2022).

II. MATERIAL AND METHODS

2.1 Study Area

Gujba is a Local Government Area in Yobe State, Nigeria. It has an area of 3, 239 km2 (1, 251 sq mi) (Mbaya,2022)and with a population of 130, 088 (National Population Commission [NPC], 2006). Gujba Local Government Area in Yobe State, Nigeria, is approximately located at the following coordinates: Latitude: 11.4991° N and Longitude: 11.9300° E. These coordinates place Gujba in the northeastern part of Nigeria, within the semi-arid region characterized by its savanna vegetation and sandy soils. Gujba is predominantly inhabited by the Bura (Pabir) and Kanuri people. Gujba Local Government Area (LGA) in Yobe State, Nigeria, is bordered by several other LGAs. These neighboring LGAs include: Damaturu LGA: Located to the north of Gujba, Damaturu is also the capital of Yobe State. Gulani LGA: Situated to the south of Gujba, Gulani shares a boundary with it. Fika LGA: Positioned to the west of Gujba, Fika is another neighboring local government area. Borno State: To the east of Gujba, the area shares a boundary with Borno State, another state in northeastern Nigeria. These neighboring areas interact with Gujba in terms of trade, culture, and administration, contributing to the region's overall socio-economic dynamics.

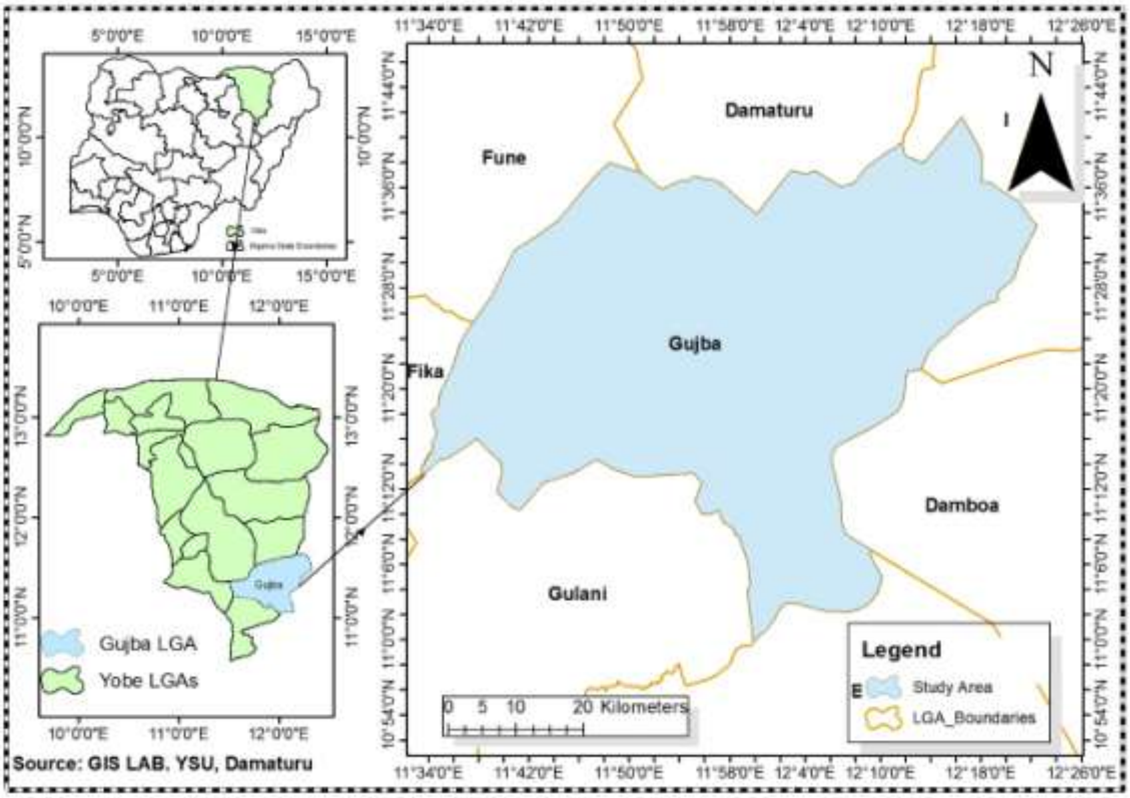


Figure 1: The Study Area Map

2.2 Method of Data Collection and Sources of Data

The data for this study will be derived from both primary and secondary sources. The primary sources include the construction of open-ended structured questionnaire. While the secondary source will be information's from literatures, journals, texts, etc. The data will be collected personally by the researcher and the collected data will be analyze using simple percentage.

2.3Sample and Sampling Technique

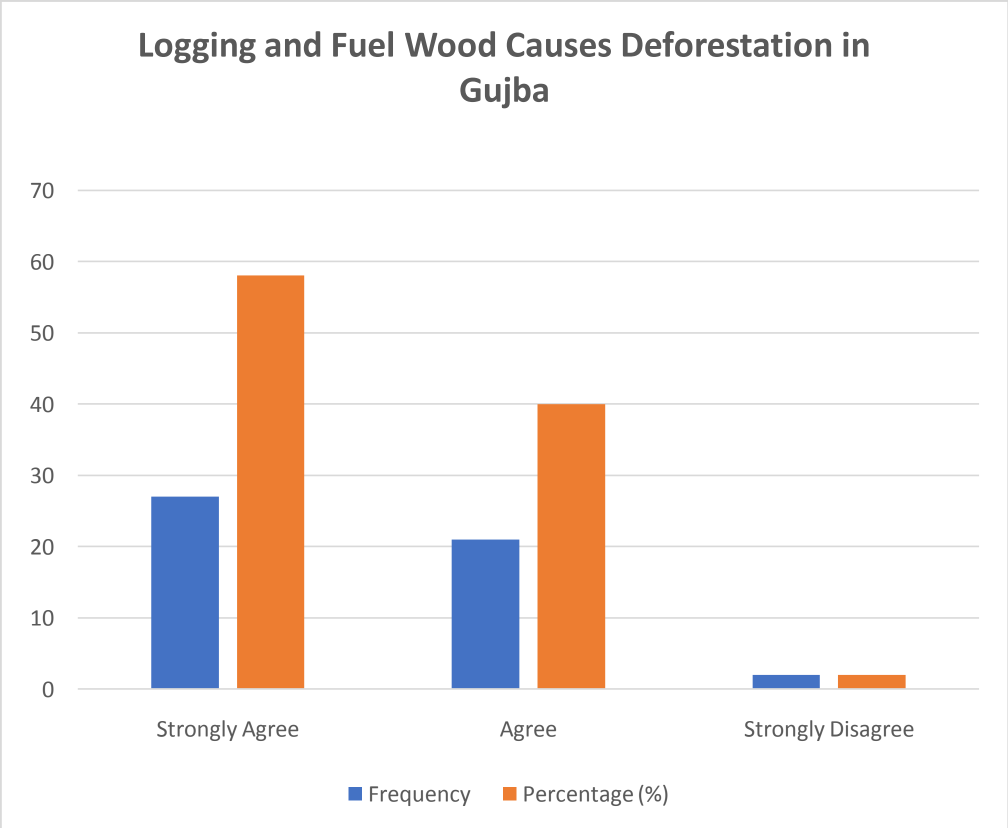
In carrying out this research, fifty (50) respondents were randomly selected in some areas of Gujba Local Government Yobe State, the simple random sampling technique was used to select the subjects from the agriculture department of the Local Government, farmers and hunters.

2.4 Data Analysis

Data will be analyzed using descriptive and inferential statistics (frequencies, percentages, and chi-square tests) to determine relationship between variables.

III. RESULTS AND DISCUSSIONS

From the figure below shows that 82% of the respondents said that logging and fuel wood cause deforestation in Gujba while 18% of the respondent said that the logging and fuel exploitation caused deforestation in Gujba, Yobe state. This indicated that majority of the respondents said that logging and fuel wood cause deforestation in Gujba.



Sources: Field Survey, 2026.

From the table below shows that 70% of the respondent said that overgrazing cause deforestation in their area, while 30% said that overgrazing is not cause deforestation in their area. This indicated that majority of respondent agreed that overgrazing cause deforestation in their area.

Overgrazing Cause Deforestation in Gujba

Options	Frequency	Percentage (%)
Yes	35	70
No	15	30
Total	**50**	**100**

Sources: Field Survey, 2026

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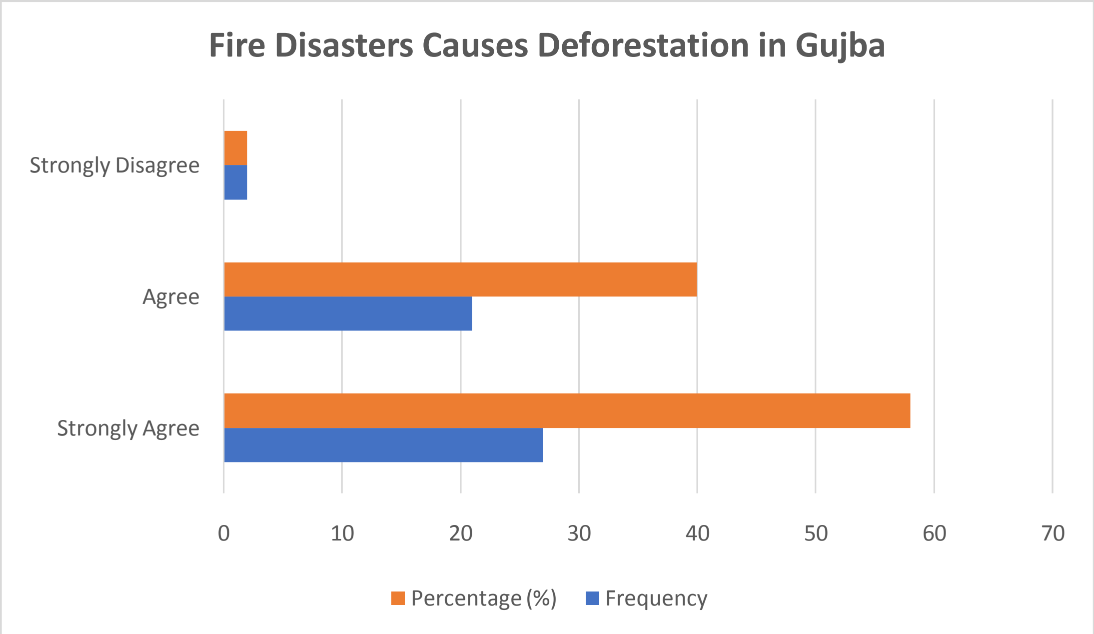
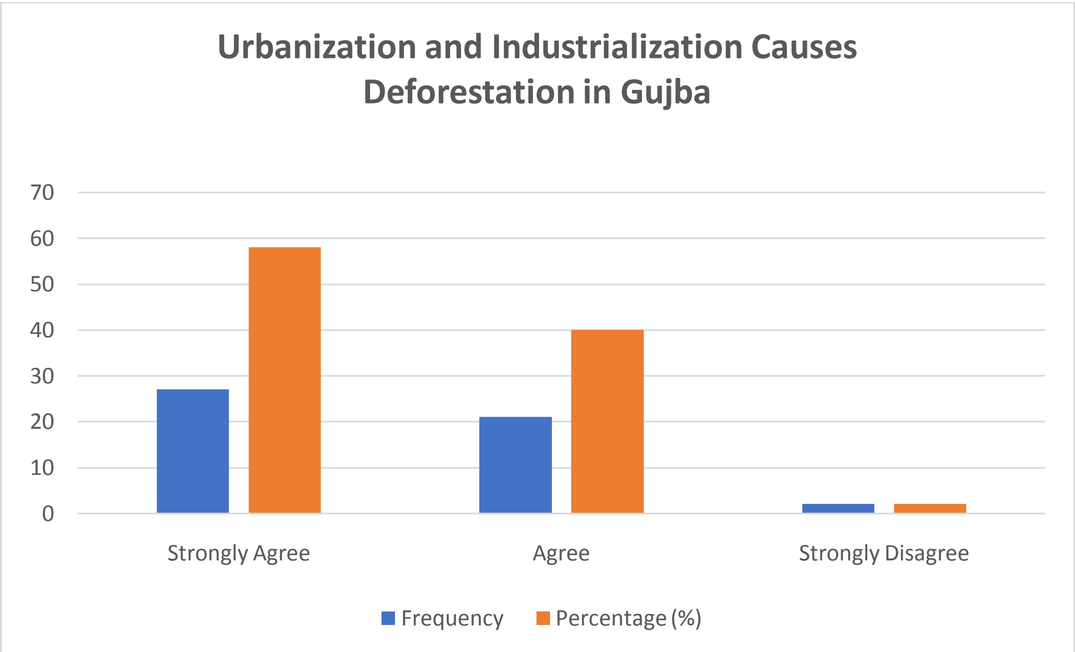
From the figure below shows that 80% of the respondents said that fire disasters cause deforestation in Gujba, 20% said that fire outbreak don't cause deforestation. This revealed that majority of the respondents agreed that disaster cause deforestation in their area.



Sources: Field Survey, 2026.

From the figurebelow shows that 84% of the respondent said that urbanization cause deforestation in Gujba while 16% of the respondent said that urbanization and industrial activities don't cause deforestation. This revealed that majority of the respondent said that urbanization and industrial activities cause deforestation in the area.



Sources: Field Survey, 2026

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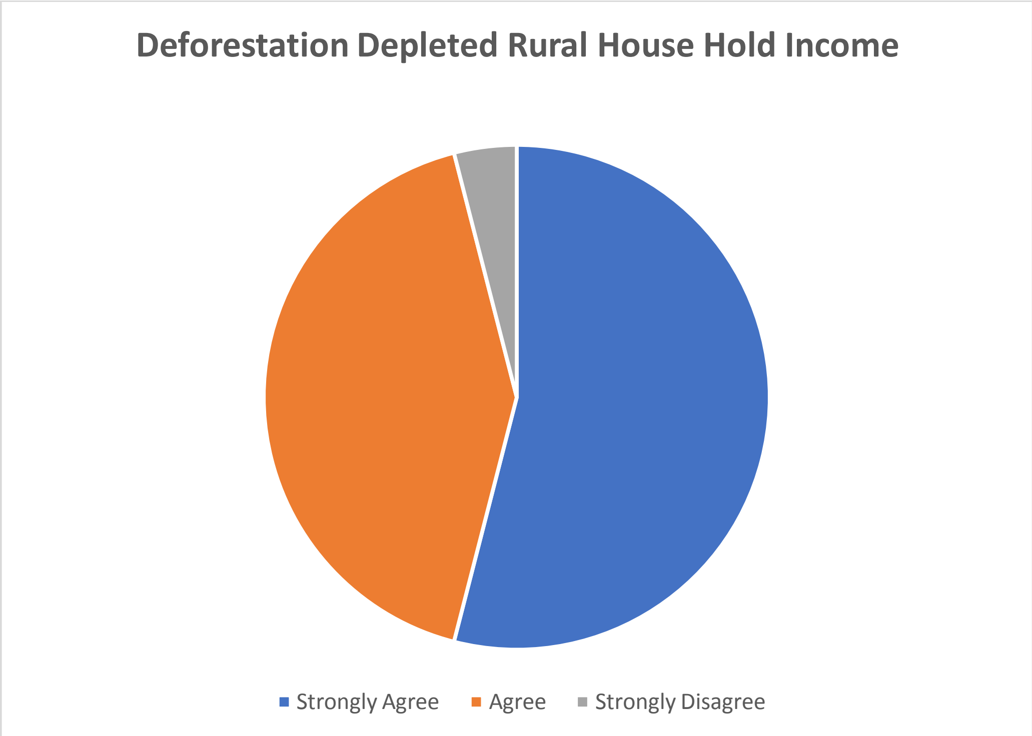
From the table below shows that 48% of the respondent said that deforestation don't in any ways affect rural household income, while 52% said that deforestation does not in any way affect the rural household income. This revealed that majority of the respondents said that deforestation does not in any way affect rural household income.

Deforestation Does Not in Any Way Affect Rural Household Income

Options	Frequency	Percentage (%)
Yes	24	48
No	26	52
Total	**50**	**100**

Sources: Field Survey, 2026

From the figure below shows that 84% of the respondents said that deforestation depleted rural house hold income while 16% of the respondents said that deforestation don't deplete rural house hold income in Gujba. This revealed that majority of the respondents said the deforestation depleted rural house hold income.



Sources: Field Survey, 2026

From the figurebelow shows that 44% of the respondents strongly agreed that deforestation can lead to climate change, 26% are agreed that de forestation can lead to climate change, 12% strongly disagreed that deforestation can lead to the climate change while 18% disagreed that deforestation can lead to climate change. This revealed that majority of the respondent strongly agreed that deforestation may lead to climate change.

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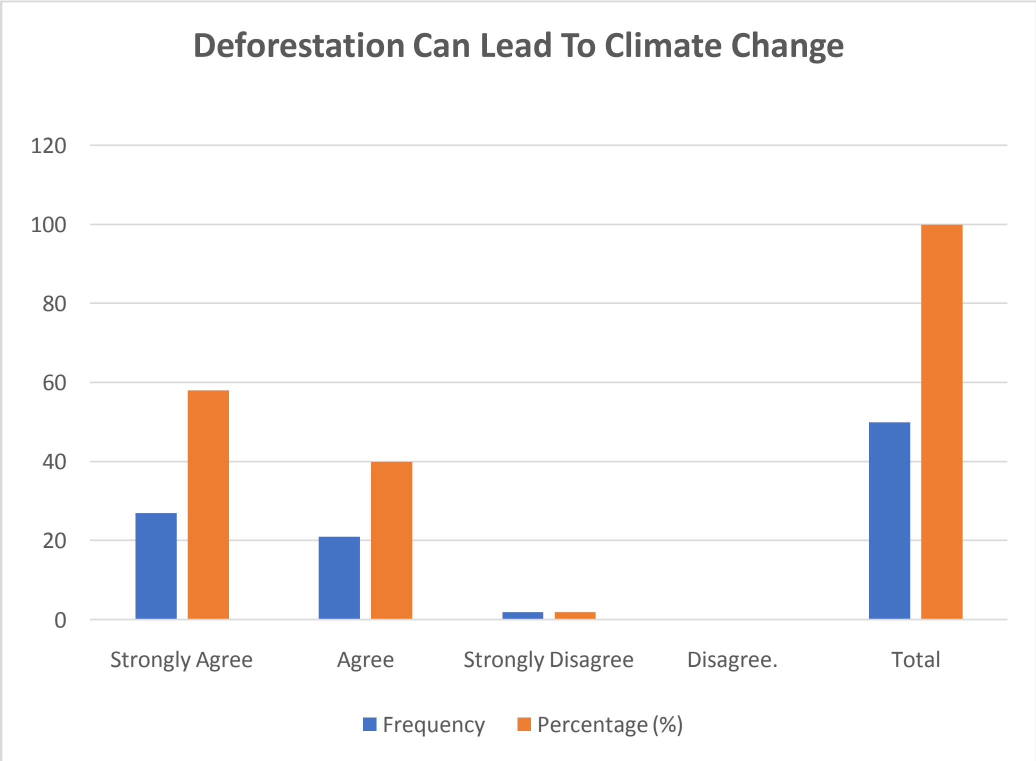


Sources: Field Survey, 2026.

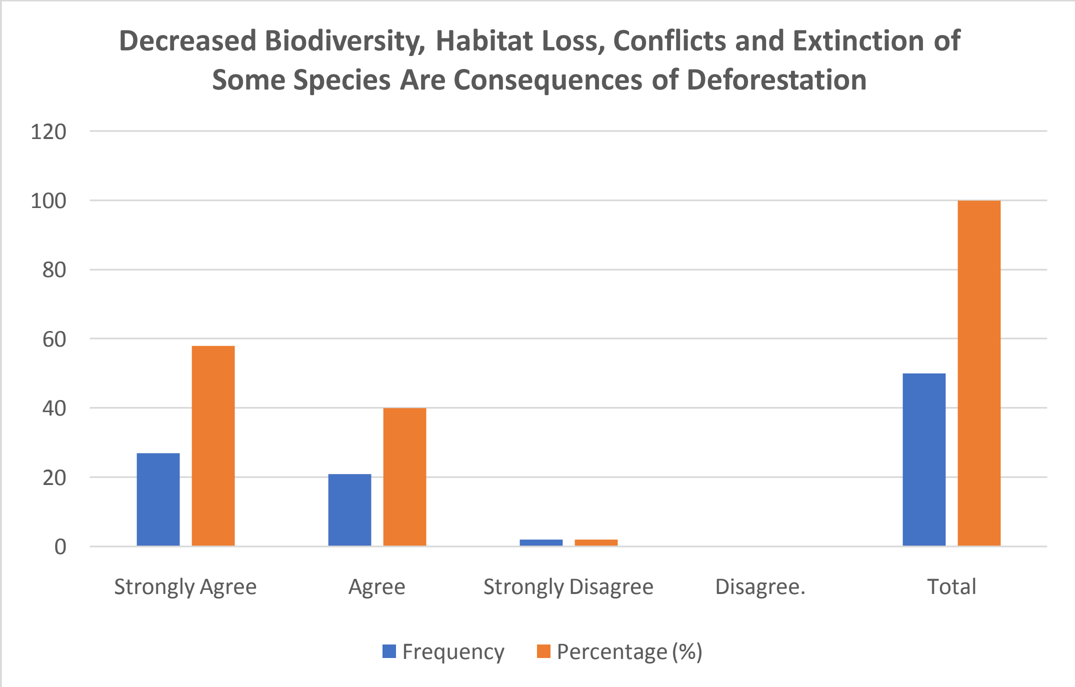
From the table below shows that 54% of the respondents strongly agreed that water and soil resources loss and flooding are consequences of deforestation, 30% are agreed that Water and soil resources loss and flooding are consequences of deforestation, 12% are disagreed that water and soil resources loss and flooding are Consequences of deforestation. This revealed that majority of respondent are strongly agree that Water and soil resources loss and flooding are consequences of deforestation.

Water and Soil Resources Loss and Flooding Are Consequences of Deforestation

Options	**Frequency**	**Percentage (%)**
Strongly Agree	27	54
Agree	15	30
Strongly Disagree	6	12
Disagree.	2	4
Total	**50**	**100**

Sources: Field Survey, 2026.

From the figure below shows that 38% of the respondents strongly agreed that decreased biodiversity, habitat loss, conflicts and extinction of some species are consequences of deforestation, 42% agree that decreased biodiversity, habitat loss, conflicts and extinction of some species are consequences of deforestation, 20% strongly agreed that decreased biodiversity, habitat loss, conflicts and extinction of some species are consequences of deforestation, while no respondents to this option.



Sources: Field Survey, 2026.

From the table below shows that 58% of the respondents strongly agreed that increasing the area of forest plantation will reduce deforestation with, 42%o agreed that increasing the area of forest plantation will reduce deforestation while strongly disagreed and disagreed no any respondents reposed to this option. This revealed that majority of the respondents strongly and agreed that that increasing the area of forest plantation will reduce deforestation.

Increasing the Area of Forest Plantation Will Reduce Deforestation

Options	Frequency	Percentage (%)
Strongly Agree	29	58
Agree	21	42
Strongly Disagree	-	-
Disagree.	-	-
Total	**50**	**100**

Sources: Field Survey, 2026.

From the figurebelow shows that 58% of the respondents strongly agreed that Increasing investment in research, education, training and extension services on deforestation and forestry activities will reduce deforestation, 42% of the respondents agreed that Increasing investment in research, education, training and extension services on deforestation and forestry activities will reduce deforestation while no response to both strongly disagreed and agreed this indicated that majority of the respondents agreed that Increasing investment in research, education, training and extension services on deforestation and forestry activities will reduce deforestation in the study area.

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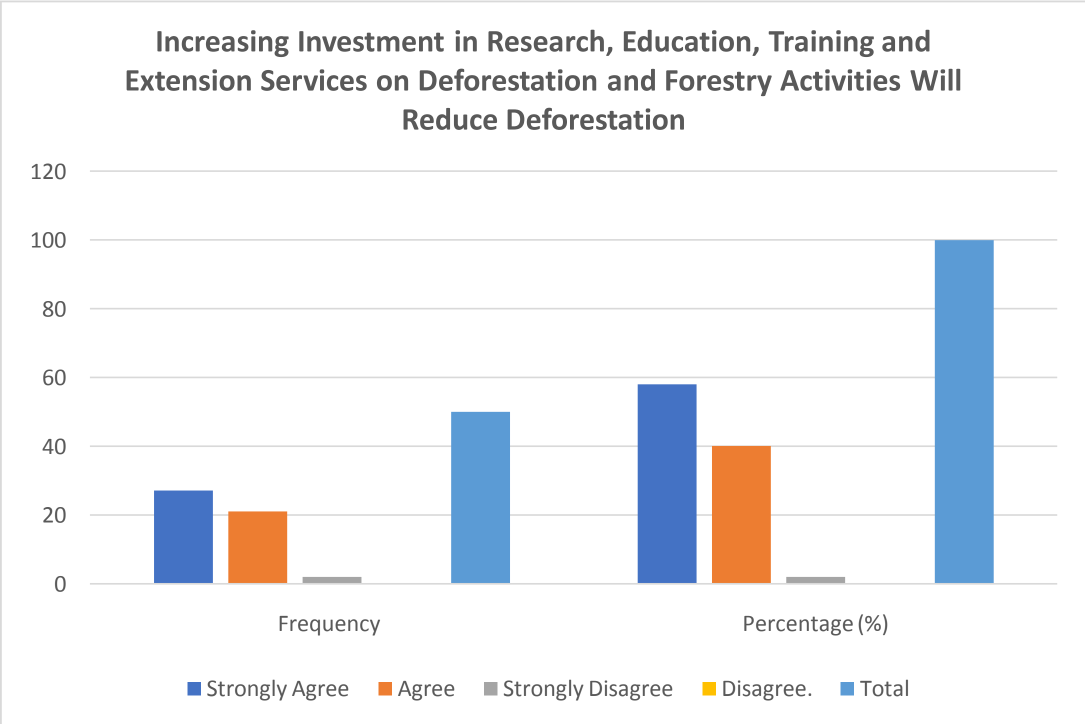

Sources: Field Survey, 2026.

From that table below shows that 31% of the respondents strongly agreed that Proper legislation and policy, regulatory measures, enforcement and compliance will reduce deforestation, 19% agreed that Proper legislation and policy, regulatory measures, enforcement and compliance will reduce deforestation while none of the respondent's response to strongly disagreed and disagreed. This revealed that most of the respondent respondents agreed that Proper legislation and policy, regulatory measures, enforcement and compliance will reduce deforestation.

Proper Legislation and Policy, Regulatory Measures, Enforcement and Compliance Will Reduce Deforestation

Options	**Frequency**	**Percentage (%)**
Strongly Agree	27	58
Agree	21	40
Strongly Disagree	2	2
Disagree.	0	0
Total	**50**	**100**

Sources: Field Survey, 2026.

IV. CONCLUSION

Economic globalization combined with the looming global land scarcity increases the complexity of future pathways of land use change. In a more interconnected world, agricultural intensification may cause more rather than less cropland expansion. The apparent tradeoff between forest and agriculture can be minimized through spatial management and the use of degraded or low competition lands. This can be further addressed by community-based forest management which builds on political goodwill and strong community institutions. New challenges from climate change require urgent action to explore and protect the local value of forests for livelihood even more. This is particularly true in the case of emerging activities undertaken as part of government activities where broad forest governance is aligned with it along with people's participation ensuring livelihood benefits of the people dependent on forests. These renewed activities will safeguard traditional ways of life and the environmentally important forest ecosystems of the world. More should be done to protect the rural dwellers as most of them are agriculturally inclined and engaging in practices that promote deforestation affects them negatively as they can no longer farm and experience bountiful harvest as a result of deforestation.

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