

EFFECT OF RURAL-URBAN MIGRATION ON AGRICULTURE AND FOOD SECURITY IN AWE LOCAL GOVERNMENT AREA OF NASARAWA STATE, NIGERIA

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Abstract

Rural-urban migration has become a pervasive phenomenon in Nigeria, as well as other African countries, with significant implications for agriculture and food security. Agriculture and food security challenges have been a critical issue of human concern, with the increasing internal migration as a consequence of kidnapping and internal pressure on scarce resources. The study assessed the effect of rural-urban migration on agriculture and food security in Awe LGA, Nasarawa state with specific emphasis on the push factors driving rural-urban migration on agricultural productivity and food security in the area. The study used neo-Malthusian theory as its theoretical framework and adopted cross-sectional survey design/multistage sampling technique and used questionnaire as the instrument for collection of primary data. 204 sample were selected using Yamane (1967) formula. The study discovered that certain factors such as the level of insecurity like the recent upsurge of kidnapping as well as the desire for gainful employment, natural disasters like flood are responsible for the rise in rural-urban migration in the area. The study also discovered that rural-urban migration has effect on agricultural activities and food security in Awe L.G.A. The study recommends gathering of information about the migrant coming in and out of the LGA for agricultural activities and enforcement of laws (forest guards) prohibiting invasion by herdsmen into farmlands in Awe L.G.A.

Keywords: Rural-rural, migration, food security

1.0 Background to the study

The phenomenon of rural-urban migration is grounded in uneven distribution and persistent inequality in the allocation of social and economic infrastructure and utilities such as pipe-borne water, good roads, electricity, health facilities, and industries, among others, in rural and urban communities (Food and Agriculture Organization FAO, 2017). Man would naturally hunt for better opportunities and chances in life for different reasons and purposes. People tend to be pulled to areas of prosperity and pushed away from areas of decline. These migrants are usually concerned and focused on the expected benefits or opportunities they hope to gain by moving and jettisoning the problems that may come with the process. However, the movement of people from

rural areas to urban areas leaves the rural with fewer people for farm production. Migration from rural to city areas reduces the labour force in the agriculture industry and consequently has a negative effect on its agriculture production and food security, both for the destination and the origin of migration (Eze, 2016).

The rural-urban migration threatens food security, through the decrease in farming production. Some factors influencing this migration include presence of better social amenities, presence of good schools and hospital facilities and refreshment and entertainment at the urban areas and upsurge of insecurity in the rural areas especially Nigeria. As different countries continue to grow and become urban, the number of the individuals participating in farming is reducing. Agricultural sector is adversely affected by unfavorable weather conditions which in turn disrupts the price stability of the products. Farmer's welfare will be subsequently impacted if there is reduction in the price of their products. With time, these movements from rural to city areas reduces labour force in the agriculture industry and consequently has a negative effect on its economic development and food sustainability (Liu, Barrett, Pham & Violette, 2020).

In the same context, agriculture in India remains to be the important economic activity in the rural places (Qin, 2010). Among rural households, individuals with greater opportunity cost tend to migrate and the elderly, some of uneducated people are left behind to conduct agricultural activities leading to reduction of labor in the rural areas. Migration has favorable effect on non-agricultural income and unfavorable influence on farming income (Wang, Xin & Wang, 2020). In addition, remittances may encourage farmers in on-farm investment, capital issues that have hampered farmers in purchasing fertilizer and other crucial inputs. Even though there have been a considerable work on migration and effects of movement on development, little interest are paid to the rural-urban migration and its effect on agriculture production.

In Sub-Saharan Africa, rural-urban migration continues apace (Kaur & Kaur, 2019). For instance, in Tanzania, roughly half of the population has out-migrated from rural districts since 1991 (De-Weerd & Hirvonen, 2013). Nigeria, the most populous country in Africa and the sixth in the world with an estimated population of 237 million people (Worldometers, 2025) is estimated to have the third largest absolute increase in urban population by 2050 (United Nations Department of Economic and Social Affairs, 2014). Despite its lesser contribution to the nation's gross domestic products (GDP) compared to the oil sector, agriculture still remains the mainstay of the Nigerian economy, employing more than 70% of the entire 85 million labour force population (National Bureau of Statistics NBS, 2017). Agriculture provides the main source of livelihood for most Nigerians (FAO, 2019). Such employment is provided in terms of agricultural production, storage, processing, animal husbandry, marketing, and other value chain opportunities. One of the reasons for low contribution to GDP was the fact that the agriculture sector is being practiced primarily by subsistent farmers in rural communities who rely on family labour for the different agricultural operations. The situation is worsening as the workforce of the rural areas are now migrating to urban cities in search of 'greener pastures' thereby leading to increasing urbanization (Johnson & Ifeoma, 2017). The sustainable Development Goal 2 of the United Nations is aimed at ending hunger and all forms of malnutrition by 2030. Migration affects

the sending communities either positively or otherwise as it entails the loss of manpower for productive activities.

Nasarawa State, located in the North-Central region of Nigeria, boasts of a rich agricultural heritage and known for its fertile soil and favorable climate, making it an ideal location for farming. Agriculture is the dominant occupation of the inhabitants, with major crops including maize, sorghum, millet, rice, cassava, goats, poultry, etc. However, the state has been confronted by significant challenges in recent years, including rural-urban migration, as a result of the upsurge of Kidnapping, Farmer-Herder conflict and general insecurity especially in Awe LGA. This menace has far-reaching implications for agriculture and food security (Sonnino, 2016).

Rural-urban migration in Nasarawa State has been driven by various factors, including limited economic opportunities, inadequate infrastructure, and the allure of better living standards in urban areas. Over the past few decades, the state has witnessed a steady outflow of rural dwellers to urban centers, particularly Lafia, the state capital, and other major cities within and outside the state. This migration pattern has been characterized by a decline in the agricultural workforce, leading to challenges in farm productivity and food security. Therefore, this study seeks to examine the effects of rural-urban migration on agriculture and food security in Awe Local Government Area (LGA) of Nasarawa State.

2.0 Literature review and Theoretical Framework

2.1 Effect of rural-urban migration on agriculture productivity

Rural-urban migration is a double-edge problem affecting both rural and urban communities. Eze (2016) contend that the rural community is affected because the youths and adults who are supposed to remain and contribute to the development of agriculture in particular and the community in general leave the rural areas for the cities. The 'lost labour' of able-bodied men and women could likely lead to a decline in agricultural production. A couple of major effects show the link between migration and agricultural production. First, the loss of labour through migration which may tighten the labour constraint for agricultural production and second, the earnings in the form of remittances from migrants which may loosen credit constraints and help with investments in agricultural production. These two effects in terms of agricultural income may be positive, negative or they may offset each other. A positive effect would imply that migration complements agricultural production while a negative effect would imply that the loss of labour caused by migration reduces agricultural productivity (Rozelle, Taylor & deBraww, 2019).

Constraining factors that compromise agricultural productivity gains include weather-related shocks, poor transport, storage and communications infrastructure, missing or inefficient markets, weak institutions and inadequate agricultural policies; greater uncertainty and higher risks reduce the incentives to invest in agricultural production (FAO, 2016). International trade and trade policies affect the domestic availability and prices of goods (Ayiti & Adedokun, 2023). Trade policies have normally opposite effects on farmers and urban population, thus final results on food

security are mixed. Finally, social protection (e.g., school-feeding programs, cash transfers) has a direct contribution to hunger reduction

According to International Fund for Agricultural Development (2007), outmigration can also cause the drain of skills and the loss of innovative community members from rural areas. This usually drains the brain from the rural areas that are supposed to initiate progressive ideas for the development of the rural areas. Additionally, the youths who migrate to the cities are usually influence by the ways of life of the city. This in turn may likely have negative impact on their community and by extension the rural agricultural sector and food security.

Kaur and Kaur (2019) research investigated the impacts of rural-urban migration on agriculture production in Magway Area, Myanmar. It concentrated on the partnership in between rural-urban movement and farming growth in this field. The purpose of the research is to make an evaluation and give insights on rural-urban movement and its effects on agricultural growth, concentrating on four towns in the region. The study noted that factors influencing migration include the presence of better social amenities, the presence of good schools and hospital facilities and refreshments in urban areas. The study concluded that migration from rural areas to urban areas has a negative impact on food sustainability. The study recommended that policies should be put in place which see in the lowering of rural-urban movement by raising the per capita income in rural areas through agricultural investment.

Ayiti and Adedokun (2023) believed that migration is a growing global concern with various effects and impacts. As structural transformation and concentration on other sectors and agricultural sector becomes smaller with lesser attention, the movement of people within and across countries becomes inevitable, especially in the rural areas where the major occupation and activity is farming. Hence, they undertook a study to examine the impacts of rural agricultural development on rural-urban migration in Ekiti-State, It was concluded that major causes of rural-urban migration from this study area are seeking for urban job, seeking good education, lack of social amenities in the rural area, low income, seeking for skill and basic health care and the possible outcomes are reduction in labour, high cost of labour, low agricultural productivity, low income and standard of living, poverty, and reduction in raw materials.

2.2 Rural-urban migration and food security

Food security is “a situation in which all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life” (World Food Programme - WFP, 2017). It refers to the ability to access nutritious food. Parameters for this discipline include the nutritional value of food, accessibility, and quantity. This notion implies that food security occurs if a population can access enough and nutritious meals. In this regard, the discipline includes the value of food to the partakers and potential harm associated with a lack of certain nutrients, as well as harmful types of foods. According to Riches, food security is affected by politics; therefore, the phrase is associated with international relations and security. Further, food security is affected by conflict and weather conditions (WFP, 2017). This conflict at present Nigeria, Nasarawa State and Awe

Local Government Area relate to the kidnapping of majorly farmers, land dispute, tribal conflict, ongoing and or seasonal farmer-herder conflict across Awe, Taraba and Benue border

In Kenya, the 2016 Comprehensive Food Security and Vulnerability Survey (CFSVA) by WFP reported that households headed by women were poorer, less educated and thus these households were considerably more food insecure. (WFP, 2016). Other factors closely associated with food insecurity are climate change, technology and innovation, topography and land use, conflict and international trade.

Makki (2022) studied the effect of rural-urban migration on food security in Chikun Local Government Area, Kaduna State, Nigeria. The study randomly selected 120 respondents from six political wards and collected primary data using a structured questionnaire. The descriptive statistics revealed that most respondents were educated and married, with male-dominated households. The primary reasons for rural-urban migration were insecurity, Job search, and joining a spouse. The study found that age, household size, and food from friends were the primary determinants of food security. The study recommends that policymakers formulate policies to improve rural security and development. The findings of this research will contribute to a better understanding of the effects of rural-urban migration on food security in Awe Local Government Area of Nasarawa State, Nigeria.

Marta, Fauzi, Juanda and Rustiadi (2020) performed study to evaluate the association between agricultural productivity and rural-urban migration in Indonesia. The association first examined by approximating a food sustainability model on nation level information covering the years between 1980 -2010. The association additional investigated by examining study and empirical researches. Generally, the results support the concept that rural-urban migration adversely effects farming production with the loss of productive participants of the rural regions. There is a need to lower the gaps between rural and urban centers i.e., there should be the stipulation of social facilities in the rural areas. Loans should be made available to the rural farmers and the terms of the agreement made in simple language to them; this will assist them in buying much more land for farming along with labor usage. There should be the creation of industries, provision of social facilities like electricity and good communication facilities and so on, in the rural regions will assist in suppressing this rural-urban movement.

Anyanwu, Njoku, Angwu, and Iwunze (2018) analyzed the effects of rural-urban migration on household food security in Umuahia South Local Government Area of Abia State, Nigeria. Findings showed that the respondents have a mean age of 49 years and majority of the migrants' household were educated and married, with male dominated household constituting 79.16 % and mean household size of 5 persons. It also showed that most (81.66%) of the respondents were engaged in farming occupation with mean income of ₦50,737. The three main causes of rural-urban migration in the study area were: search for job, better education and join spouse. The results of the food security status showed that 66.67% of the respondents have food security index of less than 1. The results of the regression analysis showed that age, household size and food from friends were the major determinants of food security in the study area.

2.3 Neo-Malthusian theory

The Neo Malthusian Theory, first proposed by Thomas Malthus in 1806, posits that population growth will eventually outstrip the Earth's capacity to produce food, leading to widespread famine and food insecurity. The proponent of the theory composed an essay in 1798 titled "An Essay on the Principle of Population". In the essay, Malthus proposed that people should never receive money from the state. Malthus said that if people received money for free, they would think that they could afford to support large families and increase their reproduction. Resultantly, the rate of poverty would heighten because of the increased populations that do not match agriculture and food supply. The theory assumes that food and human passion play primary roles in reproduction and population growth. The theory is advised against transfer of money from wealthy people to the poor. This theory has been extended by scholars such as Paul Ehrlich, who argues that human societies are unable to sustainably manage their food systems and that population growth will inevitably lead to ecological disasters. The proponent of the theory, Thomas Malthus, believed that increased food supply heightened population of a particular location.

Visibly, Malthus observed that population grows wherever people have steady supply of food. Similarly, this research argues that increased food supply maintains and increases populations, but the lack of it prompts people to move to urban areas. The more people move outward from the rural areas, the less food production occurs, thereby resulting in food insecurity and famine affecting the people residing in both rural and urban areas. Aside from the population theories and food security arguments, it is essential to use human behavior to understand the need to move from rural to urban areas whenever people experience food scarcity.

In applying the Neo-Malthusian theory to this study, it can be seen that the rapid rural-urban migration across Nasarawa State and Awe LGA in particular has significant implications for agriculture and food security. The influx of people into the urban area has led to increased competition for limited resources, including land, water, and labor. This competition can result in decreased agricultural productivity, as the available land and resources are divided among a larger number of people. Additionally, the migration of skilled agricultural workers to urban areas has further exacerbated the problem, as the remaining farmers are left to manage the agricultural sector with reduced labor and expertise.

The Neo Malthusian theory also predicts that the increased population pressure will lead to overcultivation, excessive fertilizer use, deforestation, desertification, and soil degradation, all of which can undermine food security. In the context of this study, the rapid population growth and urbanization in Awe L.G.A may result in increased pressure on the agricultural land, resulting in under cultivation and soil degradation. This has decreased the fertility of the soil, making it difficult for farmers to maintain sustainable agricultural practices.

3.0 Method and Results

To get appropriate sample for the study, the 174,600 (NPC, 2006) population of Awe Local Government Area according to census count, was calculated using the Yamane (1967) sample size determination formula which is stated below.

$$n = \frac{N}{1+N(e)^2}$$

Where N = Total population

n = Sample size

e = Level of Significance (0.07)

1 = Unity (a constant)

Given that

$$n = 174,600$$

$$e = 0.07$$

Therefore:

$$\begin{aligned} n &= \frac{174,600}{1+174,600(0.07)^2} \\ &= \frac{174,600}{174,601 (0.0049)} \\ &= \frac{174,600}{855.545} \\ &= 204 \end{aligned}$$

Therefore, the sample size for this study is 204.

The study adopted multistage sampling technique comprising of simple random sampling, proportionate sampling, and systematic sampling techniques. The study area comprises of ten (10) political wards namely: Tunga, Makwangiji, Madaki, Galadima, Jangaru, Kanje/Abuni, Ribi, Azara, Wuse and Akiri wards, and out of these, four (4) wards were selected. To do this, the fishbowl method of sampling was used whereby each of the political ward were written on a piece of paper, squeezed, and dropped in a basket and mixed together and four (4) out of the ten (10) wards were randomly picked and presented on a table below.

Table 1: Selected wards and their population

S/N	Political wards	Population
1	Tunga	30,408
2	Madaki	21,441
3	Ribi	27,160
4	Azara	19,416
	Total	98,425

Source: National Population Commission, 2016.

Bowley's representative method was used to determine the number of questionnaires that were distributed to the selected wards. This implies that the sample size of each selected wards is proportionate to the population of the political ward.

Bowley's formula for the strata sample size is: $nh = nNH/N$

Where n = sample size, nNH = population of the strata, N = total population.

Table 2 Distribution of respondents per political ward

S/N	Political Wards	Population	Size	Total
1.	Tunga	30,408	$\frac{30,408}{98,425} \times \frac{204}{1}$	63
2.	Madaki	21,441	$\frac{21,441}{98,425} \times \frac{204}{1}$	44
3.	Ribi	27,160	$\frac{27,160}{98,425} \times \frac{204}{1}$	57
4.	Azara	19,416	$\frac{19,416}{98,425} \times \frac{204}{1}$	40

Source: Researcher's computation, 2024.

For this study, systematic sampling technique was used to reach the respondents; here, numbers from 1-5 were allocated to buildings in the selected wards and every household that falls as the third was selected and studied. This gesture is to give every household the opportunity to participate in the study, thus warding off bias. This is because some of the households in Awe L.G.A. do not have numbers; consequently, the researcher allocated numbers to the households from which every third household in the selected communities were selected and studied.

Results

The field result of the questionnaires indicates that out of 204 administered; only 202 were completed and returned, while 2 were not returned. This implies that 99 % of respondents returned their questionnaires and therefore constitute the 100%.

Table 3: Socio-demographic Characteristics of Respondents

Characteristics	Frequency	Percent (%)
Age		
15-19	58	29
20-24	65	32
25-29	35	17
30-34	35	17
34 and above	9	5
Total	202	100
Sex		
Male	106	52.5
Female	96	47.5
Total	202	100
Marital status		
Single	107	52.9
Married	66	32.6
Divorced	9	4.5
Widowed	15	7.5
Separated	5	2.5
Total	202	100
Religion		
Christianity	126	62.3
Islam	69	34.3
TAR	6	2.9
Others	1	0.5
Total	202	100
Education		
Primary	105	51.9
Secondary	24	11.8
Tertiary	33	16.5
No formal education	40	19.8
Total	202	100
Occupation		
Farming	105	51.9
Trading	33	16.5
Artisan	24	11.8
Civil servant	40	19.8
Total	202	100

Source: Fieldwork, 2024

Table 3 above indicates that although the highest number of respondents comes from the 20-24 age bracket, there is a good representation of all age brackets ranging from 15 years to above 39 years. This will validate our research that the opinion arrived at, represents the generality of the people of Awe L.G.A. the table also shows that 52.5% respondents are male while 47.5% respondents are female. On marital status, the table shows that 52.9% of the respondents are single, 32.6% of the respondents are married, and 4.5% respondents are divorced, while 7.5% respondents are widows/widowers. 51.9% of the respondents are farmers indicating a direct relationship with the topic and its linkage with migration

Table 4: Respondents' rating on the effect of rural-urban migration on agriculture productivity in Awe L.G.A.

S/N	Statement	Response			Total
		Yes	Not sure	No	
1	The able-bodied youth needed for farming leave the rural areas for the cities	191 (98.5%)	--	11 (1.5%)	202 (100%)
2	There is low number of crops grown	138 (71.2%)	-	64 (28.9%)	202 (100%)
3	Leads to slow development in the rural areas	185 (95.4%)	--	17 (4.6%)	202 (100%)
4	Urbanization has led young rural farmers to slowly desert farming	183 (91%)	--	19 (9%)	202 (100%)
5	More population means less land in urban areas for cultivation	189 (97.4%)	--	13 (2.6%)	202 (100%)
6	Food and agriculture policies discourage people from farming	191 (98.5%)	--	11 (1.5%)	202 (100%)

Source: Fieldwork, 2024

Table 4 highlights result of respondents' rating on the effect of rural-urban migration on agriculture productivity in Awe L.G.A. 98.5% of the respondents agreed that one of the effects of rural-urban migration on agriculture productivity in Awe L.G.A. is that able-bodied youth needed for farming leave the rural areas for the cities. This is followed by the agreement of 71.2% of the respondents that it leads to low number of crops grown. On the opinion that rural-urban migration leads to slow development in the rural areas and has led young rural farmers to slowly desert farming, 95.4% and 91% of the respondents concur to it. The table further revealed that 97.4% of

the respondents agree with the notions that more population in urban areas as a result of migration from rural dwellers means less land in urban areas for cultivation which may in turn lead to congestion in urban areas and low agricultural productivity. From the above, it can be deduced that although migration of rural dwellers to urban areas is to search for personal and/or familial development, such migration may have adverse effect on agriculture and food security.

Table 5: Respondents' rating on the effect of rural-urban migration on food security in Awe L.G.A.

S/N	Question	Response			Total
		Yes	Not sure	No	
1	Rural-urban migration reduces the availability of food supply	202 (100%)	--	--	202(100%)
2	There is low access to food because of high cost	126 (63%)	--	76 (37%)	202(100%)
3	There is low availability and access to nutritious food	191(98.5%)	--	11 (1.5%)	202(100%)
4	There is low availability of food due to migration as a result of conflict	185(95.4%)	--	17 (4.6%)	202(100%)
5	There is food insecurity due to poor climatic conditions	138(71.2%)	--	64 (28.9%)	202(100%)
6	There is low quality of agricultural products	189 (97.4%)	--	13 (2.6%)	202(100%)

Source: Fieldwork, 2024

Table 5 shows respondents' rating on the effect of rural-urban migration on food security in Awe L.G.A. All the respondents in the study agreed that rural-urban migration reduces the availability of food supply, while 63% of the respondents agree that it leads to low access to food because of high cost as a result of shortage in supply. This is followed by the agreement of 98.5% and 95.4% of the respondents that rural-urban migration leads to low availability and access to nutritious food. Lastly, the result show that rural-urban migration has adverse effect as there is low availability of food due to migration as a result of conflict and poor climatic conditions, which may ultimately lead to low availability and quality of agricultural products in Awe L.G.A.

4.0 Discussion of findings

The study discovered that rural-urban migration has effect on agriculture productivity in Awe L.G.A. Such effect include loss of able-bodied men in rural areas because able-bodied youth

needed for farming leave the rural areas for the cities, low number of crops grown and slow development in the rural areas. In line with these findings, Rozelle et'al (2019) support this finding when they argued that mostly agriculture sector usually provides seasonal jobs; therefore, it does not offer enough earnings to maintain the family for a whole year. With time, these movements from rural to city areas reduces labour force in the agriculture industry and consequently has a negative effect on its economic development and food sustainability.

Similarly, Onyeonoru (2014) in their study found that rural communities share this burden through loss of manpower necessary for agricultural activities and production. It also results into reduction in agricultural productivity which in turn leads to food insecurity and soaring price of food. Rural-urban migration in Nigeria can have significant impacts on agricultural activities and food security through labour shortages in agriculture.

The study found that rural-urban migration reduces the availability of food supply and leads to low access to food because of high cost. This finding is in line with the study by Liu and Dang (2019) who discovered that rural-urban migration in Asian countries has resulted in few people remaining in the rural areas to do farming. The rural-urban migration threatens food security, through the decrease in farming production. Furthermore, the study discovered that desire for skills acquisition and inadequate or poor social amenities may also push people from rural areas to urban areas.

The above discovery is supported by Guresci (2022) who opined that as younger individuals migrate to urban areas, the rural population left behind tends to be older. Older farmers may have limited capacity or motivation to adopt modern agricultural practices, leading to lower agricultural productivity and efficiency. Migration can result in reduced adoption of new agricultural technologies and innovations in rural areas. Innovations such as improved seeds, mechanization, and irrigation techniques may be less accessible or implemented at a slower pace, hindering agricultural growth. In some cases, rural-urban migration leads to changes in land use patterns. Agricultural land may be converted to residential, commercial, or industrial use as urbanization expands. This diminishes the availability of arable land and affects agricultural production capacity.

Furthermore, migration can weaken rural economies that depend heavily on agriculture, leading to increased poverty and food insecurity among those left behind. This creates a cycle where poverty and lack of opportunities further incentivize migration to urban areas. As people migrate to urban areas, dietary patterns may shift towards more processed foods and away from traditional staples produced locally. This can impact local food markets and the demand for certain agricultural products.

5.0 Conclusion and Recommendations for Policy Implications

In Nigeria as every county of the world, agriculture is a main stay, as it's the source from which food and raw materials are gotten, therefore its place for sustenance, continuity, development, production, and trade all rely on agricultural production. Despite the graveness of

importance that agricultural activities to existence and to survival and the economy, Nigeria suffers a lot in terms of agricultural production, with little machines involved in the production process and over reliance on human labour as a result of migration of rural dwellers to urban settlements where agriculture is not the mainstay. Improved varieties gotten from research has also been neglected with reliance on just what is available, without a consideration for what can be obtained through proper investments and budgeting for agricultural production, with adequate provision of capital to rural dwellers, provision of farm equipment and storage facilities so as to ensure an all-year-round availability of food. Security has also been a thing for concern as both crops and livestock production suffers lots of losses with heightened insecurity. Therefore, all hands must be decked to ensure that agricultural production is sustained improved and adequately preserved to ensure quantity, quality, variety, accessibility, and availability. The study therefore, recommended that government should enact and enforce laws prohibiting invasion by herdsmen into farmlands so as to serve as deterrence to further encroachment. This can be achieved when the government should recruit and deployed forest guards to save the lives and property of people, especially in rural areas so as to make rural dwellers comfortable and not think of migration.

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