ISRG Journal of Arts, Humanities and Social Sciences (ISRGJAHSS)

ISRG PUBLISHERS
Abbreviated Key Title: ISRG J Arts Humanit Soc Sci
ISSN: 2583-7672 (Online)
Journal homepage: https://isrgpublishers.com/isrgjahss
Volume – IV Issue - II (March – April) 2026
Frequency: Bimonthly

Migration Patterns and Agricultural Productivity in Akamkpa Local Government Area of Cross River State- Nigeria

Ayamba, Itojong Anthony[1*], Nsa, Sylvester Effefiom[2], Awatt, Christiana Efiong[3], Ugbe, Joachim Utialikong[4]

[1,2,3,4] Department of Public Administration University of Calabar- Calabar, Nigeria

| **Received:** 06.03.2026 | **Accepted:** 12.03.2026 | **Published:** 16.03.2026

*Corresponding author: Ayamba, Itojong Anthony

Abstract

Agricultural productivity remains central to rural livelihoods, yet growing rural-urban migration raises concerns about labour stability and farm performance in Nigeria. This study examined the relationship between migration patterns and agricultural productivity in Akamkpa Local Government Area of Cross River State. Anchored on the Harris–Todaro Model and Dependency Theory, the research explored how expected income differentials and structural rural inequalities shape migration decisions and agricultural outcomes. A descriptive survey design was adopted, and data were collected from 300 registered farmers selected through stratified and simple random sampling. A structured questionnaire was administered, and hypotheses were tested using the Chi-square statistical technique. Findings revealed no statistically significant relationship between rural-urban migration and labour availability, farmland utilisation, or household agricultural income in the study area. Although migration is visible, its measurable impact appears moderated by coping mechanisms such as remittances, communal labour systems, and livelihood diversification. The study concludes that migration effects are context dependent rather than universally disruptive. It recommends strengthened rural infrastructure, mechanisation support, youth agricultural empowerment, and improved credit access to sustain long-term agricultural productivity.

Keywords: Migration, Agricultural Productivity, Farmland Utilization, Household Income, Labour

Introduction

Agriculture remains a fundamental pillar of economic development, food security, and rural livelihoods across the globe. It represents the process through which land, labour, capital, and technology are combined to produce crops and livestock for human consumption and industrial use. When agricultural inputs are efficiently utilised, productivity rises, incomes improve, and rural economies become more resilient. According to the Food and Agriculture Organization (2022), agriculture continues to provide employment for a significant share of the global population, particularly in developing countries where it serves as the main source of livelihood for rural households. Yet, despite its strategic importance, agricultural productivity has come under increasing pressure from demographic, social, and economic transformations that are reshaping rural communities.

DOI: 10.5281/zenodo.19045721

One of the most influential of these transformations is migration. Migration involves the movement of people from one geographical location to another, either temporarily or permanently, in search of better economic opportunities, education, security, or improved living conditions (Njoku *et al.*, 2025). In recent decades, rural to urban migration has intensified worldwide. The United Nations (2021) reports that more than half of the global population now resides in urban areas, and this figure is projected to increase steadily in the coming decades. This demographic shift reflects disparities in infrastructure, employment opportunities, social amenities, and public services between rural and urban regions. While migration may improve individual welfare, it often produces unintended consequences for rural economies, especially in agrarian communities that depend heavily on human labour.

In many developing countries, the outflow of young and able-bodied individuals from rural areas has created labour shortages in agriculture. As youths migrate to cities, the agricultural workforce shrinks, leaving behind an ageing population and reduced farm capacity (Akpandem *et al.*, 2025). The International Organisation for Migration (2025) notes that such migration patterns frequently lead to under-utilisation of farmlands, declining crop yields, and reduced household income from farming. Remittances sent by migrants may provide short-term relief, but they rarely compensate for the long-term productivity losses associated with labour depletion. Consequently, migration patterns have become closely linked to food insecurity and rural poverty in many parts of sub-Saharan Africa.

In Nigeria, agriculture remains central to economic survival and rural employment. The sector contributes substantially to national output and sustains millions of households across the country. Nigeria's vast arable land supports the cultivation of crops such as cassava, yam, maize, rice, and palm produce, alongside livestock farming (Nuga & Asimiea, 2015). However, rapid urbanisation and internal migration have altered rural demographic structures. The National Bureau of Statistics (2023) reports a steady increase in urban population over the past decades, driven by employment prospects and improved access to education and social services in cities. This migration has reduced the availability of farm labour in several states, weakened agricultural productivity, and contributed to food supply challenges (United Nations Development Programme (UNDP), 2021).

Cross River State reflects this broader national pattern. The state possesses rich agricultural potential, with favourable climatic conditions that support the cultivation of cocoa, oil palm, cassava, plantain, and other staple crops. Agriculture serves as a major source of livelihood in many local government areas, particularly in rural communities (Ayamba, 2019). However, persistent migration of youths to urban centres such as Calabar and other commercial hubs has begun to affect the structure of rural labour. The reduction in active farming populations has implications for land utilisation, output levels, and household income stability. Akamkpa Local Government Area, one of the predominantly rural areas in Cross River State, is deeply rooted in agricultural activities. Farming constitutes the principal economic activity of the local population, with households relying on crop production and small-scale livestock rearing for sustenance and income generation. Yet, recent years have witnessed noticeable migration flows from Akamkpa to urban centres within and outside the state. Young men and women relocate in search of wage employment, education, and improved living conditions. This movement has created observable changes in farming intensity, land cultivation patterns, and overall agricultural productivity in the area.

The decline in available labour has led to reduced farm sizes, delayed planting seasons, and lower harvest volumes. Many farmlands are either underutilised or left uncultivated due to insufficient manpower. As agricultural output declines, household income becomes unstable, thereby increasing vulnerability to poverty and food insecurity (Abang & Ayamba, 2019). While migration may provide remittance inflows, such financial transfers do not necessarily translate into reinvestment in agricultural production. In some cases, migration further discourages agricultural engagement by reinforcing perceptions of farming as less rewarding compared to urban employment (Afolajimi & Taiwo, 2025). Despite the growing relevance of migration to agricultural performance, limited empirical attention has been directed specifically at understanding how distinct migration patterns affect productivity outcomes in Akamkpa Local Government Area. Most existing studies address migration or agricultural productivity separately, without integrating both variables within a localized rural context. This creates a knowledge gap in understanding the precise nature of the relationship between migration dynamics and agricultural output in this specific setting.

This study therefore seeks to examine migration patterns and agricultural productivity in Akamkpa Local Government Area of Cross River State. The research is guided by the following hypotheses:

$H_0$1: *Rural-urban migration does not significantly affect the availability of labour for farming activities in Akamkpa Local Government Area of Cross River State.*

$H_0$2: *There is no significant relationship between rural-urban migration and farmland utilization in Akamkpa Local Government Area of Cross River State.*

$H_0$3: *Rural-urban migration does not significantly affect household income from agricultural activities in Akamkpa Local Government Area of Cross River State.*

The significance of this study is threefold. At the theoretical level, it deepens understanding of the linkage between demographic mobility and rural production systems. At the empirical level, it provides context-specific evidence from Akamkpa, thereby enriching the literature on rural migration and agricultural performance in Nigeria. At the policy level, it offers practical insights that can guide rural development strategies, youth retention initiatives, and agricultural support programmes aimed at sustaining productivity and improving livelihoods in Cross River State.

Theoretical underpinning

This study is anchored on the Harris Todaro Model of Migration and Dependency Theory, which together provide complementary explanations for migration patterns and their implications for agricultural productivity in Akamkpa Local Government Area of Cross River State. The Harris Todaro Model, developed by Harris and Todaro in 1970, explains rural urban migration as a rational economic decision based on expected income differentials rather than actual wage levels. According to the model, individuals compare expected urban earnings, adjusted for the probability of securing employment, with relatively stable but often lower rural incomes. Migration persists as long as expected urban income exceeds rural earnings, even where urban unemployment is high.

DOI: 10.5281/zenodo.19045721

In the context of Akamkpa, this framework helps to explain why young and economically active individuals leave agricultural communities for cities such as Calabar and other commercial centres despite uncertainties in urban labour markets. The perceived opportunity for higher income, diversified employment, and improved living standards outweighs the relatively predictable but modest returns from farming. As these youths exit the rural labour force, agricultural labour supply contracts, farmland utilisation declines, and productivity weakens, thereby reinforcing the central argument of this study that migration patterns are closely linked to agricultural performance outcomes.

While the Harris Todaro Model emphasises individual economic rationality, Dependency Theory, advanced by André Gunder Frank in 1966, offers a structural perspective that situates migration within broader patterns of unequal development. Dependency Theory argues that underdevelopment in rural areas is not accidental but structurally embedded within economic systems that privilege urban and industrial centres at the expense of agrarian communities. In Nigeria, development policies have historically concentrated infrastructure, education, employment opportunities, and investment in urban areas, thereby marginalising rural economies. Applied to Akamkpa Local Government Area, this theory suggests that migration is not merely the result of personal income calculations but also a response to systemic inequalities such as poor rural infrastructure, limited access to credit, inadequate agricultural extension services, and weak market integration. As resources, capital, and public investment gravitate toward urban centres, rural communities become economically dependent and less competitive, prompting young residents to migrate. The resulting labour depletion further reduces agricultural productivity, creating a cycle in which rural stagnation reinforces continued migration.

Empirical review

Migration has increasingly attracted scholarly and policy attention as a critical factor influencing agricultural productivity and rural development in Nigeria. In Nigeria and other developing countries, several empirical studies have examined the relationship between migration and agricultural outcomes. These studies have explored diverse dimensions, including labour shortages, changes in farm size, shifts in cropping patterns, remittance utilisation, and productivity trends across rural regions. Evidence from various states indicates that sustained rural outmigration often reduces cultivated land area, increases reliance on hired labour, raises production costs, and weakens food crop output. At the same time, some studies suggest that remittances and technology adoption may partially offset labour losses under certain conditions. The complexity of these findings underscores the need for context specific analysis that captures both the direct and indirect effects of migration on agricultural systems. Table 1 below presents a summary of key empirical studies that examine the relationship between migration patterns and agricultural productivity in Nigeria and comparable developing country contexts. The review incorporates a wide range of methodological approaches, including cross sectional surveys, longitudinal panel studies, econometric modelling, qualitative case studies, and global institutional assessments.

Table 1: Empirical review on migration patterns and agricultural productivity

Author(s) and Date	Research Objective(s)	Methodology	Results
Rozelle et al. (1999)	Examined migration, remittances and agricultural productivity in China.	Household empirical analysis.	Migration and remittances influenced farm input use and productivity outcomes.
Goldsmith et al. (2004)	Tested how rural-urban income gaps shape migration and agricultural outcomes in Senegal.	Time series modelling.	Income differentials influenced migration pressures and agricultural performance.
Mendola (2008)	Investigated how migration shapes agricultural investment and technology adoption.	Household empirical analysis.	Migration affected farm investment and productivity decisions with mixed effects.
Wouterse & Taylor (2008)	Assessed migration and livelihood diversification implications for agriculture in Burkina Faso.	Household survey with econometric methods.	Migration supported diversification with labour and production implications.
De Brauw (2010)	Examined seasonal migration and crop production decisions.	Instrumental variables estimation.	Seasonal migration altered labour allocation and crop portfolios.
Taylor & Lopez-Feldman (2010)	Tested whether migration improves rural household productivity in Mexico.	Panel household analysis.	Migration relaxed constraints and affected productivity differently across households.
Adaku (2013)	Examined rural-urban migration effects on agricultural production in Northern Ghana.	Household survey and regression analysis.	Temporary migration reduced farm production capacity.
Ango et al. (2014)	Analysed socio-economic drivers of youth migration in Sokoto State, Nigeria.	Household survey and econometric testing.	Youth migration reduced available farm labour supply.
Ayinde et al. (2014)	Assessed youth migration and agricultural production in Osun State, Nigeria.	Two-stage sampling; survey analysis.	Negative correlation between migration and farm production capacity.
Food and Agriculture	Synthesised global evidence on	Global evidence review.	Migration reshapes rural labour

DOI: 10.5281/zenodo.19045721

Organisation (2015)	migration, agriculture and rural development.		and agrarian transformation.
Mwesigye & Matsumoto (2016)	Studied migration, land conflict and productivity in Uganda.	Econometric analysis.	Land conflicts linked to migration reduced productivity.
Mbah et al. (2016)	Examined youth migration effects on farm families in Benue State, Nigeria.	Interview schedule and descriptive statistics.	Youth migration weakened household farm labour systems.
Ofuoku & Aganagana (2018)	Assessed migration effects on arable crop production in Delta State, Nigeria.	Survey and regression analysis.	Labour shortages reduced arable crop output.
Djuikom (2018)	Estimated incentives to labour migration and productivity in Uganda.	Panel survey; Bayesian modelling.	Productivity effects were mixed but labour markets played key role.
World Bank (2018)	Reviewed internal migration and labour markets globally.	Global policy synthesis.	Migration reshapes rural labour supply and production incentives.
Abushe et al. (2022)	Examined rural-urban migration effects on arable crop outputs in Delta State, Nigeria.	Survey design with statistical analysis.	Migration associated with reduced crop output.
Food and Agriculture Organisation (2018)	Reviewed migration and rural development linkages globally.	Evidence synthesis.	Migration influences labour, remittances and rural transformation.
Mercandalli & Losch (2019)	Analysed rural migration and structural transformation in Sub-Saharan Africa.	Regional synthesis.	Migration linked to labour reallocation and agrifood transition.
Selod (2021)	Surveyed rural-urban migration theory and empirical findings.	World Bank working paper synthesis.	Migration responds to expected economic gains.
Lall et al. (2006)	Reviewed theoretical and empirical migration evidence in developing countries.	Policy research synthesis.	Expected income differentials sustain migration flows.
Afolabi (2007)	Modelled migration and productivity links in Nigeria.	Econometric modelling.	Labour withdrawal associated with productivity decline.
Food and Agriculture Organisation (2014)	Assessed innovation and labour dynamics in family farming globally.	Multi-country synthesis.	Labour shortages threaten productivity without innovation.
World Bank & IMF (2013)	Examined rural-urban dynamics and development goals globally.	Cross-country synthesis.	Weak rural infrastructure intensifies migration pressures.

The foregoing review demonstrates that migration patterns are consistently linked to agricultural productivity, rural labour dynamics, and household income stability in developing economies. Empirical studies largely agree that sustained rural outmigration reduces farm labour availability, increases production costs, and weakens cultivated land utilisation, thereby contributing to declining agricultural output and food insecurity. While some evidence suggests that remittances and selective technology adoption may moderate these effects under certain conditions, the dominant trend across Nigeria and comparable African contexts indicates that labour depletion remains a central challenge for rural agricultural systems. However, most existing studies have examined migration and agricultural productivity at national or state levels, with limited focus on specific local government contexts where agricultural realities are shaped by unique demographic, economic, and environmental conditions. Few empirical investigations have explored how distinct migration patterns influence farmland utilisation, labour allocation, crop yield, and household income within particular rural communities in Cross River State. As a result, there remains insufficient context specific evidence on how migration dynamics operate at the grassroots level, especially in Akamkpa Local Government Area, where agriculture constitutes a major source of livelihood. This study therefore addresses this important gap by empirically examining the relationship between migration patterns and agricultural productivity in Akamkpa Local Government Area of Cross River State, Nigeria.

Methodology

This study adopted a descriptive survey research design to examine the relationship between migration patterns and agricultural productivity in Akamkpa Local Government Area of Cross River State, Nigeria. The design was considered appropriate because it enabled the systematic collection of quantitative data from respondents within their natural farming environment without manipulating any variables. The study area, Akamkpa Local Government Area, is predominantly rural and agrarian, with favourable climatic conditions that support the cultivation of cassava, yam, maize, plantain, oil palm, cocoa, and other crops. Farming constitutes the principal source of livelihood for most households in the area, although increasing migration of economically active youths to urban centres such as Calabar has begun to affect labour supply and agricultural intensity. The population of the study comprised 1,500 registered farmers obtained from records of the Cross River State Ministry of Agriculture and local extension offices. Using Taro Yamane's formula at a 0.05 level of precision, a sample size of 300 respondents was derived and proportionately distributed across the

DOI: 10.5281/zenodo.19045721

major council wards through stratified sampling to ensure adequate geographical representation. Within each ward, simple random sampling was employed to select individual respondents from the official list of registered farmers, thereby reducing sampling bias and enhancing representativeness.

Data were collected using a structured questionnaire designed to capture information on migration patterns, agricultural labour availability, farmland utilisation, crop yield levels, and household income changes associated with migration. The instrument consisted of closed ended items structured on a four point Likert scale and was subjected to expert review to ensure content validity. A pilot test involving 30 farmers in a neighbouring local government area confirmed the reliability and clarity of the instrument before full administration. Primary data were obtained through direct field distribution and retrieval of questionnaires, while secondary data were sourced from government publications, academic literature, and institutional reports to provide contextual support. Data were analysed using descriptive statistics such as frequencies and percentages to summarise response patterns, and the Chi square statistical test was employed to examine the significance of relationships between migration patterns and agricultural productivity indicators. This methodological approach provided an empirical basis for assessing how migration dynamics influence labour supply, land utilisation, output levels, and household income within Akamkpa Local Government Area

Results

Hypothesis one: *Rural-urban migration does not significantly affect the availability of labour for farming activities in Akamkpa Local Government Area of Cross River State.*

Table 2: Observed frequency table for hypothesis one

Responses	SA (%)	A (%)	D (%)	SD (%)	Total
Fewer people are available to cultivate farmlands	104 (34.7%)	116 (38.7%)	48 (16.0%)	32 (10.6%)	300
Youth migration is causing worker shortage	112 (37.3%)	108 (36.0%)	52 (17.3%)	28 (9.3%)	300
Farming is now challenging due to migration	96 (32.0%)	122 (40.7%)	54 (18.0%)	28 (9.3%)	300
There are not enough farmers in our communities	108 (36.0%)	114 (38.0%)	48 (16.0%)	30 (10.0%)	300
Fewer farm hands are available due to migration	101 (33.7%)	119 (39.7%)	47 (15.7%)	33 (11.0%)	300
Total	**521**	**579**	**249**	**151**	**1500**

Source: Researcher's Fieldwork, 2025

The chi-square statistic is calculated based on the difference between observed and expected frequencies for all cells.

Expected Frequency were calculated using the formula:

E = (Row Total × Column Total) ÷ Grand Total

- SA = (300 × 521) ÷ 1500 = 104.2
- A= (300 × 579) ÷ 1500 = 115.8
- D = (300 × 249) ÷ 1500 = 49.8
- SD= (300 × 151) ÷ 1500 = 30.2

Decision Rule

If the calculated chi-square (χ^2) value is greater than or equal to the critical value at the 0.05 significance level and 12 degrees of freedom, reject the null hypothesis.

- Degrees of Freedom (df) = *(5 - 1)* × *(4 - 1)* = 12
- Calculated Chi-Square Value = 3.87
- Critical Chi-Square Value @ α = 0.05 = 21.026

Decision

Since the calculated chi-square value (3.87) is less than the critical chi-square value (21.026) at 12 degrees of freedom and 5% level of significance, the null hypothesis is accepted. The finding, therefore, shows that there is no statistically significant relationship between rural-urban migration and the availability of labour for farming activities in Akamkpa Local Government Area. Although the descriptive data in Table 2 revealed a majority perception that migration affects farm labour, the chi-square test confirms that such perceived patterns may occur by chance. This suggests that other factors, such as mechanisation or informal labour networks, might be mitigating the direct labour impact of migration. Thus, while rural out-migration remains a visible demographic trend, its actual effect on farming labour availability may not be as uniform or as disruptive as presumed.

Hypothesis Two: *There is no significant relationship between rural-urban migration and farmland utilization in Akamkpa Local Government Area of Cross River State.*

Table 3: Observed frequency table for hypothesis two

	Responses	SA (%)	A (%)	D (%)	SD (%)	Total
	Migration disrupts farming activities.	98 (32.7%)	112 (37.3%)	52 (17.3%)	38 (12.7%)	300
	Some farmlands go unused due to migration.	93 (31.0%)	118 (39.3%)	53 (17.7%)	36 (12.0%)	300
	Migration leaves farmlands uncultivated.	101 (33.7%)	109 (36.3%)	49 (16.3%)	41 (13.7%)	300
	Migration causes farmland underuse.	96 (32.0%)	115 (38.3%)	50 (16.7%)	39 (13.0%)	300

DOI: 10.5281/zenodo.19045721

	Responses	SA (%)	A (%)	D (%)	SD (%)	Total
	Migration negatively affects farmlands.	105 (35.0%)	107 (35.7%)	51 (17.0%)	37 (12.3%)	300
	Total	**493**	**561**	**255**	**191**	**1500**

Source: Researcher's Fieldwork, 2025

The chi-square statistic is calculated based on the difference between observed and expected frequencies for all cells.

Expected Frequency were calculated using the formula:

E = (Row Total × Column Total) ÷ Grand Total

- SA = (300 × 493) ÷ 1500 = 98.6
- A= (300 × 561) ÷ 1500 = 112.2
- D = (300 × 255) ÷ 1500 = 51.0
- SD= (300 × 191) ÷ 1500 = 38.2

Decision Rule

If the calculated chi-square (χ^2) value is greater than or equal to the critical value at the 0.05 significance level and 12 degrees of freedom, we reject the null hypothesis.

- Degrees of Freedom (df) = *(5 - 1)* × *(4 - 1)* = 12
- Calculated Chi-Square Value = 2.15
- Critical Chi-Square Value @ α = 0.05 = 21.026

Decision

Since the calculated chi-square value (2.15) is less than the critical chi-square value (21.026), we accept the null hypothesis. This implies that there is no statistically significant relationship between rural-urban migration and farmland utilization in Akamkpa Local Government Area. The result suggests that while some respondents perceive that migration affects land use, the distribution of opinions does not differ significantly across items. It may imply that farmland under-utilisation is not solely driven by migration patterns; other variables such as capital availability, soil quality, or ageing farming population may also contribute significantly.

Hypothesis three: *Rural-urban migration does not significantly affect household income from agricultural activities in Akamkpa Local Government Area of Cross River State.*

Table 4: Observed frequency table for hypothesis three

Responses	SA (%)	A (%)	D (%)	SD (%)	Total
Income flow is less due to migration	76 (25.3%)	81 (27.0%)	83 (27.7%)	60 (20.0%)	300
Migration decreases income	69 (23.0%)	87 (29.0%)	86 (28.7%)	58 (19.3%)	300
Youth migration reduces income	78 (26.0%)	84 (28.0%)	77 (25.7%)	61 (20.3%)	300
Fewer workers results in low income	72 (24.0%)	82 (27.3%)	85 (28.3%)	61 (20.4%)	300
Migration reduces farming money	71 (23.7%)	83 (27.7%)	84 (28.0%)	62 (20.6%)	300
Total	**366**	**417**	**415**	**302**	**1500**

Source: Researcher's Fieldwork, 2025

The chi-square statistic is calculated based on the difference between observed and expected frequencies for all cells.

Expected Frequency were calculated using the formula:

E = (Row Total × Column Total) ÷ Grand Total

- SA = (300 × 366) ÷ 1500 = 73.2
- A= (300 × 417) ÷ 1500 = 83.4
- D = (300 × 415) ÷ 1500 = 83.0
- SD= (300 × 302) ÷ 1500 = 60.4

Decision Rule

If the calculated chi-square (χ^2) value is greater than or equal to the critical value at the 0.05 significance level and 12 degrees of freedom, we reject the null hypothesis.

- Degrees of Freedom (df) = *(5 - 1)* × *(4 - 1)* = 12
- Calculated Chi-Square Value = 1.76
- Critical Chi-Square Value @ α = 0.05 = 21.026

Decision

Since the calculated chi-square value (1.76) is less than the critical value (21.026) at 12 degrees of freedom and 5% significance level, we accept the null hypothesis. This implies that there is no statistically significant relationship between rural-urban migration and household income from agricultural activities in Akamkpa Local Government Area. Though the descriptive data shows many believe migration affects farming income, the statistical evidence suggests these perceptions might occur by chance. Factors like remittances, mechanization, and income diversification may buffer the effects of migration, weakening any direct income impact.

Discussion

The findings of this study present an interesting picture of the relationship between migration patterns and agricultural productivity in Akamkpa Local Government Area of Cross River State. Although descriptive responses indicated that a substantial proportion of respondents perceived migration as affecting labour availability, farmland utilisation, and agricultural income, the inferential analysis using the chi square test revealed that these relationships were not statistically significant. In essence, while migration is visible and widely acknowledged within the community, its measurable impact on core agricultural productivity indicators appears less direct than commonly assumed. This outcome contributes a fresh empirical layer to the ongoing debate within migration and rural development literature that increasingly shows that migration effects differ across local contexts and household conditions.

DOI: 10.5281/zenodo.19045721

With respect to labour availability, the study found that rural urban migration does not significantly affect the availability of labour for farming activities in Akamkpa. This result contrasts with empirical evidence from other Nigerian rural settings where youth migration has been associated with labour gaps and weakening farm labour systems. For example, Ayinde *et al.* (2014) reported that youth migration from farming communities in Osun State created noticeable constraints for agricultural production, especially through reduced participation of younger labour in farming operations. Similarly, Mbah, Ezeano, and Agada (2016) found that rural urban youth migration in Benue State negatively affected farm families through labour shortages and increased farm management burdens on those left behind. However, the present finding suggests that Akamkpa farmers may be absorbing migration pressures through coping strategies such as kin based labour substitution, communal labour arrangements, short term labour hiring, or gradual adaptation through labour saving practices. This explanation fits broader evidence that migration does not uniformly depress productivity because households adjust in different ways depending on resources and constraints.

In relation to farmland utilisation, the study equally established that there is no statistically significant relationship between migration and land use patterns in Akamkpa. In other contexts, however, researchers have documented that migration can reduce cultivated area indirectly by weakening labour supply and raising the cost of farm operations. Evidence from Delta State indicates that rural urban migration is associated with labour shortages that constrain arable crop production, a pathway that often leads to reduced intensity of cultivation even when land remains available. Beyond Nigeria, De Brauw (2010) shows that migration can reshape household labour allocation and production choices, sometimes causing shifts in crop portfolios and land use decisions rather than simple land abandonment. In Akamkpa, communal landholding patterns and family retention of farmlands may reduce the likelihood that migration translates into visible farmland underutilisation, while households may instead adjust by changing crop choices and production strategies, which aligns with migration and technology evidence reported by Mendola (2008).

The third hypothesis, which examined the effect of migration on household agricultural income, also revealed no statistically significant relationship. While many respondents believed migration reduces income, statistical testing suggests that income differences may not be strongly attributable to migration alone. This position aligns with literature showing that migration can create mixed income effects because remittances, diversification, and changes in labour allocation can offset losses in farm output in some households. Rozelle *et al.* (1999) demonstrate that migration and remittances can influence agricultural outcomes through investment and input use, rather than producing a single consistent negative result. Wouterse and Taylor (2008) also show that migration affects activity choice and incomes in ways that vary by destination and livelihood strategy, meaning that rural households can experience income buffering even when labour supply changes. This implies that in Akamkpa, households may be stabilising welfare through remittances and non-farm income streams, thereby limiting the direct income shock that migration might otherwise create.

On the whole, the findings reinforce the theoretical insight of the Harris Todaro Model that migration decisions are shaped by expected economic gains rather than immediate rural productivity consequences. At the same time, the results reflect elements of Dependency Theory by recognising that long standing structural conditions such as limited rural infrastructure and unequal development opportunities shape both migration decisions and the capacity of rural agriculture to adapt. The absence of statistically significant relationships does not imply that migration is irrelevant. Rather, it suggests that its impact is mediated by contextual variables and household level adjustment strategies in Akamkpa. This study therefore advances the literature by showing that migration effects on agricultural productivity are not universally deterministic but context dependent, and it strengthens the case for localised empirical analysis when designing rural development and agricultural sustainability interventions.

Conclusion, implication and recommendations

This study examined the relationship between migration patterns and agricultural productivity in Akamkpa Local Government Area of Cross River State. The findings show that rural urban migration does not have a statistically significant effect on labour availability, farmland utilisation, or household income from agriculture in the study area. Although many respondents expressed the view that migration reduces farm labour and affects production, the chi square results indicate that these effects are not strong enough to establish a significant statistical relationship. This outcome suggests that the impact of migration in Akamkpa is more complex and less catastrophic than widely assumed in migration literature.

The results imply that rural households in Akamkpa have developed coping strategies that cushion the potential effects of youth outmigration. Families may rely on extended kin networks, communal labour systems, hired seasonal workers, or remittances from migrants to sustain farming activities. In this sense, migration does not automatically translate into productivity collapse. Rather, it appears to trigger adjustments within the rural economy. However, the absence of statistical significance does not mean that migration is irrelevant. Persistent youth outflow, if left unmanaged, could gradually weaken agricultural sustainability, especially where mechanisation and institutional support remain limited.

The policy implication is clear. Migration should not be treated solely as a threat, but neither should it be ignored. Government must strengthen agricultural resilience through deliberate investment. Expanding access to mechanised tools and labour saving technologies will reduce dependence on manual labour. Improving rural credit facilities can enable farmers reinvest remittances into productive ventures. Youth focused agricultural empowerment programmes should also be introduced to reposition farming as a profitable and dignified occupation. Equally important is rural infrastructure development. Better roads, storage facilities, electricity supply, and market access will enhance productivity and profitability. These interventions will reduce structural push factors that encourage migration while improving agricultural output. Lastly, migration in Akamkpa has not yet produced measurable productivity decline, but sustainable rural development policies are necessary to preserve this stability and secure long term food production in Cross River State.

References

1. Abang, P.O., & Ayamba, I.A. (2021). Agricultural development programmes in Nigeria's Fourth Republic: Changing the narrative of food insecurity in Nigeria.

DOI: 10.5281/zenodo.19045721

Journal of Good Governance and Sustainable Development in Africa, *6*(3), 64–74. http://journals.rcmss.com/index.php/jggsda.

2. Abushe, O.P., Ekokogbe, O.O., Ebewore, S.O., & Aganagana, D.O. (2022). Effects of rural urban migration on arable crop outputs among farming households in Delta State, Nigeria. *Journal of Agriculture*, 9(4), 37-46.
3. Adaku, A. A. (2013). The effect of rural urban migration on agricultural production in the northern region of Ghana. *Journal of Agricultural Science and Applications*, 2(4), 193-201.
4. Afolabi, M.O. (2007). Rural urban migration and productivity in the Nigerian agricultural sector. Master of Public Policy thesis, Simon Fraser University.
5. Afolajimi, A., & Taiwo, O. (2025). Remittance, institutional quality, and agricultural performance in Nigeria. *Botswana Journal of Economics*, *17*(1), 1–13. https://doi.org/10.5897/BOJE2024.0020.
6. Akpandem, E.E., Ayamba, I.A., Echadu, M.O., & Akpandem, E.E. (2025). From grazing to grieving: How herders-farmers clashes fuel food insecurity in South-East Nigeria. *International Journal of Peace and Conflict Studies*, *10*(1), 107–117. http://journals.rcmss.com/index.php/ijpcs.
7. Ango, A.K., Ibrahim, S.A., Yakubu, A.A., & Usman, T. (2014). Determination of socio economic factors influencing youth rural urban migration in Sokoto State, Nigeria. *Journal of Human Ecology*, 45(3), 223-231. https://doi.org/10.1080/09709274.2014.11906695.
8. Ayamba, I.A. (2019). SWOT analysis of Cross River State Agricultural Policy (2015-2018). *In* Ugal, G.A, Ndiyo, N.A., Offiong, R.A., & Obong, L.B. (2019) Development Imperatives of Contemprary Cross River State in Honour of Professor Zana Itiunbe Akpagu.
9. Ayinde, J.O., Torimiro, D.O., & Koledoye, G.F. (2014). Youth migration and agricultural production: Analysis of farming communities in Osun State, Nigeria. *Journal of Agricultural Extension*, *18*(1), 89–99. https://doi.org/10.4314/jae.v18i1.11
10. De Brauw, A. (2010). Seasonal migration and agricultural production in Vietnam. *Journal of Development Studies*, *46*(1), 114–139. https://doi.org/10.1080/00220380903197986
11. Djuikom, M.A. (2018). Incentives to labour migration and agricultural productivity, the Bayesian perspective. UNU WIDER Working Paper 2018 45. https://doi.org/10.35188/UNU WIDER 2018 487 2
12. Food and Agriculture Organization of the United Nations. (2014). The state of food and agriculture 2014, innovation in family farming. Rome, Italy, FAO.
13. Food and Agriculture Organization of the United Nations. (2015). Migration, agriculture and rural development. Rome, Italy, FAO.
14. Food and Agriculture Organization of the United Nations. (2018). The state of food and agriculture 2018, migration, agriculture and rural development. Rome, Italy, FAO.
15. Food and Agriculture Organization (2022). *Nigeria Country Programming Framework (CPF) 2018-2022*. A Publication of Food and Agriculture Organization of the United Nations.
16. Frank, A.G. (1966). The development of underdevelopment. *Monthly Review*, *18*(4), 17–31. https://doi.org/10.14452/MR-018-04-1966-08_3
17. Harris, J.R., & Todaro, M.P. (1970). Migration, unemployment and development: A two-sector analysis. *American Economic Review*, *60*(1), 126–142.
18. Goldsmith, P.D., Gunjal, K., & Ndarishikanye, B. (2004). Rural urban migration and agricultural productivity, the case of Senegal. *Agricultural Economics*, 31(1), 33-45.
19. International Organisation for Migration. (2025). *Climate change, food security, and migration: An assessment of climate change impacts on food security and migration outcomes*. IOM Libya. https://libya.iom.int.
20. Lall, S.V., Selod, H., & Shalizi, Z. (2006). Rural urban migration in developing countries, a survey of theoretical predictions and empirical findings. World Bank Policy Research Working Paper No. 3915. https://doi.org/10.1596/1813 9450 3915
21. Mbah, E.N., Ezeano, C.I., & Agada, M.O. (2016). Effects of rural-urban youth migration on farm families in Benue State, Nigeria. *International Journal of Agricultural Research, Innovation and Technology*, *6*(1), 14–20. https://doi.org/10.3329/ijarit.v6i1.29204
22. Mendola, M. (2008). Migration and technological change in rural households: Complements or substitutes? *Journal of Development Economics*, *85*(1–2), 150–175. https://doi.org/10.1016/j.jdeveco.2006.07.003
23. Mercandalli, S., & Losch, B. (2019). Rural Africa in motion, dynamics and drivers of migration south of the Sahara. Rome, Italy, FAO, and Montpellier, France, CIRAD.
24. Mwesigye, F., & Matsumoto, T. (2016). The effect of population pressure and internal migration on land conflicts, implications for agricultural productivity in Uganda. *World Development*, 79, 25-39. https://doi.org/10.1016/j.worlddev.2015.10.042
25. National Bureau of Statistics (NBS) (2023). National Poverty Index 2023.
26. Njoku, B.N., Ayamba, I.A., Ogar, F.I., & Ntuk, N.J. (2025). The globalization effect: Examining the nexus of insecurity and migration in Nigeria. *Journal of Public Administration, Policy and Governance Research*, *3*(1), 56–65. https://jpapgr.com/index.php/research.
27. Nuga, B.O. & Asimiea, A.O (2015). SWOT Analysis of the Nigerian Agricultural Sector. *Journal of Agriculture and Veterinary Science*, 8(4), 51-53.
28. Ofuoku, A.U., & Aganagana, D.O. (2018). Effect of rural urban migration on arable crops production in Delta North Agricultural Zone, Delta State, Nigeria. *Journal of Agriculture*, 55(2), 229-236. https://doi.org/10.20289/zfdergi.414130
29. Rozelle, S., Taylor, J.E., & De Brauw, A. (1999). Migration, remittances, and agricultural productivity in China. *American Economic Review*, *89*(2), 287–291. https://doi.org/10.1257/aer.89.2.287
30. Selod, H. (2021). Rural urban migration in developing countries, a survey of theoretical predictions and empirical findings. World Bank Policy Research Working Paper.
31. Taylor, J.E., & Lopez Feldman, A. (2010). Does migration make rural households more productive,

DOI: 10.5281/zenodo.19045721

evidence from Mexico. *Journal of Development Studies*, 46(1), 68-90. https://doi.org/10.1080/00220380903198463

32. World Bank, & International Monetary Fund. (2013). Global monitoring report 2013, rural urban dynamics and the millennium development goals. Washington, DC, World Bank.
33. World Bank. (2018). Moving for prosperity, global migration and labor markets. Washington, DC, World Bank.
34. Wouterse, F.S., & Taylor, J.E. (2008). Migration and income diversification, evidence from Burkina Faso. *World Development*, 36(4), 625-640. https://doi.org/10.1016/j.worlddev.2007.03.009
35. United Nations Development Programme (UNDP) (2021). Human Development Report Database. (Online Resource) Available at https://unstats.un.org/hdr/indicators/database/. Accessed on 20 February, 2026.

DOI: 10.5281/zenodo.19045721