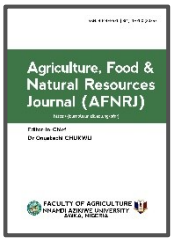
Agr. Foo. Nat. Res. J. Volume 5, Issue 2, Page: 150-155

e-ISSN: 1597-7153 | p-ISSN: 3043-5420

Agriculture, Food and Natural Resources Journal

The Official Journal of the Faculty of Agriculture, Nnamdi Azikiwe University, Awka, Nigeria

Journal homepage: https://journals.unizik.edu.ng/afnrj



Original Article

Livelihood diversification and youth participation in agricultural production in Ifelodun and Irepodun areas of Kwara State, Nigeria

OPEN ACCESS

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DOI: https://doi.org/10.5281/zenodo.23435813

Editor: *Onyekachi CHUKWU, Nnamdi Azikiwe University, NIGERIA*

Received: *July 8, 2026*
Accepted: *September 9, 2026*
Available online: *September 30, 2026*

Peer-review: *Externally peer-reviewed*

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Conflict of Interest: *The authors have no conflicts of interest to declare*

Financial Disclosure: *The authors declared that this study has received no financial support.*

ABSTRACT

Youth disengagement from agriculture remains a critical concern in Nigeria, with implications for rural employment, food security, and sustainable agricultural development. This study examined the relationship between livelihood diversification and youth participation in agricultural production in Ifelodun and Irepodun local government areas of Kwara State, Nigeria. Ten communities were selected from each local government using stratified random sampling. Proportionate random sampling subsequently yielded 193 youth respondents. Data were collected using a structured questionnaire and analysed using frequencies, percentages, means, and Pearson Product-Moment Correlation (PPMC) to test relationships. Non-farm activities (barbing/hairdressing (62.2%), soap making (46.1%), carpentry (45.6%), and agricultural enterprises; poultry (96.4%), crop production (92.7%), and goat rearing (60.6%)) were widespread, indicating high livelihood diversification. Inferentially, a strong positive and significant relationship existed between non-farm diversification and involvement in agricultural production ($p=0.000$). Key constraints included limited access to land (2.94), credit (2.87), and training (2.74). The study concluded that non-farm livelihood diversification is not a distraction from agriculture but a strategic complement that strengthens youth engagement in agricultural value chains and thus recommends youth-friendly land allocation, targeted credit schemes, strengthened extension and cooperative support, rural infrastructure investment, vocational training, and market-linkage interventions to enhance youth engagement in profitable agricultural value chains and stimulate rural economic development.

KEYWORDS: *Agricultural value chain, Livelihood diversification, Non-farm activities, Rural Development*

INTRODUCTION

Agriculture remains central to Nigeria's economic structure, contributing over one-third of gross domestic product and employing a large share of the labour force, yet it continues to be characterised by low productivity, smallholder dominance, and limited capitalisation (Chukwu & Chukwu, 2023; Kabir *et al.*, 2026). With more than half of the population aged below 25 years, the sector theoretically offers a critical pathway for youth employment, poverty reduction, and food security. However, empirical evidence and policy reports indicate a steady decline in youth interest and participation in farming, driven by perceptions of low profitability, drudgery, and constrained access to productive resources such as land, credit, technology, and extension services (CGIAR, 2021; Kabir *et al.*, 2026). Concurrently, youths increasingly pursue non-farm livelihood activities, including trading, artisan work, transport services, ICT-enabled enterprises, and creative industries, that offer quicker returns and higher social prestige, thereby intensifying livelihood diversification at the household and individual levels (Chukwu & Chukwu, 2023).

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Livelihood diversification is widely recognised as a rational risk-management and income-smoothing strategy in rural economies, enabling households to buffer against agricultural shocks and seasonal income fluctuations. Nevertheless, while diversification can enhance resilience and welfare, it may also reallocate labour and entrepreneurial attention away from farming, with potential implications for agricultural productivity and long-term food security, particularly in agrarian communities where youth constitute a critical labour reserve (Kachola *et al*., 2026).

One major factor driving this decline is the increasing shift of youths toward non-farm livelihood activities (Lawi *et al*., 2022). These activities including trading, transportation services, artisan work, information and communication technology (ICT) services, creative industries, and small-scale entrepreneurship offer relatively higher incomes, greater social prestige, and quicker financial returns compared to traditional farming. Additionally, the drudgery associated with farming, combined with limited access to land, credit, and modern agricultural technologies, further discourages youth participation.

Livelihood diversification has become a common strategy for individuals and households seeking to reduce socio-economic vulnerability. Diversification into non-farm activities enhances income stability, reduces exposure to agricultural risks, and creates opportunities for financial growth. However, while beneficial to individual youths seeking financial independence, this shift may reduce labor availability for agricultural production, potentially threatening long-term food security, especially in rural communities heavily dependent on agriculture (Kote *et al*., 2024).

Existing studies in Nigeria have documented constraints to youth participation in agriculture and identified socio-economic determinants of engagement, but they largely treat farming and non-farm activities as separate domains or focus on aggregate household diversification without explicitly modelling the relationship between non-farm diversification and youth involvement in agricultural production at the individual level (CGIAR, 2021; Kabir *et al*., 2026). Hence, this study addresses this gap by empirically examining how non-farm livelihood diversification influences youth involvement in agricultural production. Grounded in the Sustainable Livelihoods Framework, which conceptualises livelihood outcomes as functions of assets, vulnerabilities, institutions, and strategies in the study area.

MATERIALS AND METHOD

Study Area

The study was carried out in Ifelodun and Irepodun Local Government Areas (LGAs) of Kwara State, Nigeria. Ifelodun LGA has its headquarters in the town of Share. Ifelodun LGA covers an area of 3,435 km² and had a population of 206,042 at the 2006 census and a projected population of 363,085 in 2026 using the state level population projection from the 2006 population census (Ayo,2020). Ifelodun Local Government Area was created in 1976 with the Headquarters at Share. It is located between Latitude 8°15′55′′ and 8°36′37′′ North of the Equator and between Longitudes 4°27′12′′and 5°48′49′′ East of the Greenwich Meridian (Olaoluwa *et al*., 2024). The LGA comprises at least 80 villages and towns. Irepodun LGA, on the other hand, has its headquarters in the town of Omu-Aran. The local government is located between latitude 8° N and 8° 25' N and between longitude 4° 40' E and 5° 30' with a land area of 737 km² and a population of 148,610 at the 2006 census and a projected population of 261,443 in 2026 using the state level population projection from the 2006 population census (Ayo, 2020).

The people of both LGAs are predominantly Igbomina people of Yoruba cultural and historical heritage. The LGAs are characterized by alternating wet and dry seasons, accompanied by prevailing winds. The wet season generally extends from April to November, with annual rainfall ranging from approximately 1,100 to 1,500 mm. During this period, south-westerly winds originating from the Atlantic Ocean prevail. The dry season occurs from November to April and is characterized by the occurrence of harmattan (Olawepo *et al*., 2021). The major economic activities in the area include farming (maize, cassava, yam, rice, and sorghum), petty trading, agro-processing (cassava processing and palm oil production), livestock production (poultry, goats, and sheep), and non-farm income activities such as transportation, artisan work, and craftsmanship. The area has a significant youth population engaged in both agricultural and non-agricultural livelihoods.

Population for the Study

The target population for this study consists of all youths aged between 15 and 35 years in Ifelodun and Irepodun local government areas of Kwara State.

Sampling Procedure and Sample Size

A multi-stage sampling procedure was employed to ensure representative selection of respondents: Stage 1 involved a stratified random selection of 10 communities from each local government area. Stage 2 a field enumeration was conducted to establish accessible population of eligible respondents, due to the absence of current comprehensive sampling frame. Stage 3 involved the application of a 5% sampling frame to the number of eligible youths identified in each selected community. Stage 4 involved the use of simple random selection to select the respondents for the study thus, giving a total sample size of 193. The communities selected along with the total number of accessible population in ifelodun local government are as follows; Omupo 240(12), Ganmo 243(12), Igbaja 182 (9), Oke-Ode 157(8), Yaru 161(8), Babanla 197 (10), Koko 140 (7), Moloko 136 (7), Ile-ire 256 (13), Basanyin 219 (11) and from Irepodun local government area, Ajase- ipo 315(16), omuaran 237 (274), Esie 143 (7), Oro 180(9), Ipetu 159 (8), Ayetoro 194

(10), 149 (7), Arandun 175(9), Owode Ofaro 153(8), Oke are 162 (8). The formula below was used in calculating the predetermined proportion from in each community. The formula:

$n_i = 0.05N_i$ (1)

Where n_i = sample selected from the unit/community, N_i = Number of eligible youths identified in the unit/community and 0.05 = the predetermined sampling fraction

A structured questionnaire coded into Kobo Toolbox electronic software (kobocollect v2025 3.3) was used to elicit information from the respondents. The instrument was validated by experts in the Department of Agricultural Extension and Rural Development, University of Ilorin, and its reliability was established through the test and retest method, which yielded a correlation coefficient of 0.86.

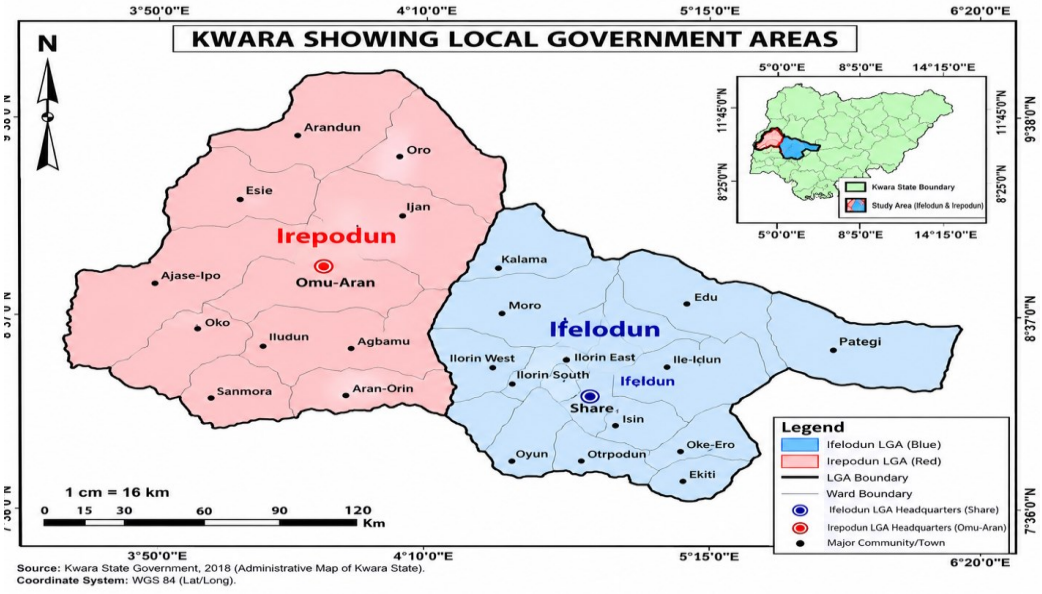

Figure 1. Map of the study area

Analytical Technique

Types of non-farm activities and agricultural activities, the level of involvement in non -farm and agricultural activities and constraints faced by youth in agricultural production were measured using structured response options and analysed with frequencies, percentages, mean and ranking. Type of non-farm and agricultural activities engaged in by the youths were assessed as Yes for involvement and No for non-involvement. Level of involvement in non-farm and agricultural activities were measured on a four-point likert type scale of always, often, rarely and never with mean scores used to determine and rank their level of involvement. Constraints faced in agricultural production were measured on a three-point Likert scale of very severe, severe, and not severe, with mean scores used to determine and rank their severity. Data collected were analysed using descriptive statistics including frequency counts, percentages, means, ranking and Pearson Product Moment Correlation (PPMC).

RESULTS AND DISCUSSION

Types of non-farm activities youth involve in agricultural production

Table 1 revealed that the most common non-farm activity among youths was barbing/hairdressing (62.2%), followed by soap making (46.1%), and carpentry (45.6%). This indicates that service-oriented enterprises were the most preferred non-farm livelihood activities among youths. These activities are likely preferred because they require relatively low startup capital, provide quick income returns and readily available local skills. While charcoal production (17.1%), and basket weaving (20.7) attracted fewer respondents. The implication of these findings is that rural youths engage more in easily accessible and income-generating non-farm enterprises to supplement agricultural income and reduce unemployment. This aligns with the findings of Boye *et al*. (2024) and Ninson & Brobbey (2023), who noted that African youths increasingly engage in agribusiness-related and vocational enterprises as alternative livelihood strategies and show limited involvement in the tedious aspects of farming (Gese *et al*. 2021).

Table1: Types of non-farm livelihood activities undertaken by youths

Types	Frequencies	
	Yes	No
Basket Weaving	40(20.7)	153(79.3)
Charcoal Production	33(17.1)	160(82.9)
Soap making	89(46.1)	104(53.9)
Food Selling	68(35.2)	125(64.8)
Barbing or hairdressing	120(62.2)	73(37.8)
Carpentry	88(45.6)	105(54.4)
Tie and dye	54(28.0)	139(72.0)
Shoe making	61(31.6)	132(68.4)

Source: Field Survey 2026. Number in Parenthesis= percentage

Table 2: Types of farming activities youth involve in agricultural production

Types	Frequencies	
	Yes	No
Poultry	186(96.4)	7(3.6)
Piggery	14(7.3)	179(92.7)
Cattle rearing	5(2.6)	188(97.4)
Crop production	179(92.7)	14(7.3)
Goat rearing	117(60.6)	76(39.4)
Fishery	52(26.9)	141(73.1)
Rabbit rearing	0(0.0)	193(100.0)
Others	0(0.0)	193(100.0)

Source: Field Survey 2026. Number in Parenthesis= percentage

Types of farming activities youth involve in agricultural production

The farming activities reported in Table 2 reveal a distinct preference for specific, relatively manageable agricultural enterprises. Poultry production (96.4%) and crop production (92.7%) recorded the highest participation rates, followed by goat rearing (60.6%), whereas engagement in fishery (26.9%), piggery (7.3%), cattle rearing (2.6%), and rabbit rearing (0.0%) was much lower. This pattern suggests that youths favour enterprises that are compatible with limited landholdings, can be managed alongside non-farm work, and offer comparatively quicker or more predictable returns. Poultry, in particular, typically requires smaller physical space than large ruminants, has shorter production cycles, and can be scaled incrementally, making it attractive for youths who face land and capital constraints. The high rate of crop production also reflects the continued centrality of arable farming to rural livelihoods, even among diversified youth households. The implication of these findings is that youth engagement in agriculture is not declining in absolute terms, but is being reconfigured around flexible, commercially oriented, and relatively low-barrier enterprises. Poultry, crops, and small ruminants provide an accessible entry point into agribusiness for young people who may lack the resources or risk appetite for more capital-intensive ventures such as cattle or piggery. Suggesting that youths prefer agricultural activities with lower risks, lower startup costs, and faster financial returns. This finding agrees with Geze *et al*., (2021), Nemanzemba *et al*., (2025) and Nigussie *et al.* (2024), who reported that youth participation in agricultural value chains is influenced by access to opportunities and economic benefits.

Level of Youth Involvement in Diversified Livelihood Activities

The result in Table 3 showed that barbing and hairdressing recorded the highest level of youth involvement, with a mean score of 3.11, classified as high and ranked first. Food selling (2.12), soap making (2.10), carpentry (2.02), tie and dye (1.87), and shoe making (1.77) showing a moderate level of involvement among the youths.

The lowest levels of involvement were observed for basket weaving and charcoal production, with mean scores of 1.68 and 1.60, respectively. Both activities were classified as low. This implies that youths are shifting towards modern and skill-based enterprises that provide higher and faster income opportunities. This supports the findings of Akwaekwe & Agbasi (2022), Omeje *et al*., (2020), and Osabohien *et al*. (2021) noted that diversified livelihood activities contribute to income improvement and poverty reduction among Nigerian youths.

Challenges Faced by Youths in Agricultural Livelihood Activities

The result in Table 4 revealed that difficulty in accessing land ranked first with a mean score of 2.94, inadequate market access ranked second with mean score of 2.89 and limited agricultural credit ranked third with mean score of 2.87. This indicates that access to productive resources remains a major challenge affecting youth participation in agricultural livelihood activities. Limited access to training and poor rural infrastructure both recorded mean scores of 2.74, while inadequate extension services had a mean score of 2.72. These findings suggest that institutional and infrastructural deficiencies hinder effective youth participation and productivity. The implication is that inadequate access to land, credit, infrastructure, and extension services may discourage youths from fully engaging in agricultural production. This finding aligns with Boye *et al*. (2024) and Mulema *et al*. (2020), who identified poor access to finance, training, personal aspirations and institutional support as major barriers to youth engagement in agribusiness across Africa.

Table 3: Level of Youth Involvement in Diversified Livelihood Activities

Agricultural activities	Frequencies				Mean	Rank
	Always	Often	Rarely	Never		
Basket weaving	22(11.4)	8(4.1)	49(25.4)	114(59.1)	1.68	7th
Charcoal production	0(0.0)	33(17.1)	50(25.9)	110(57.0)	1.60	8th
Barbing and hairdressing	93(48.2)	45(23.3)	38(19.7)	17(8.8)	3.11	1st
Soap making	17(8.8)	64(33.2)	33(17.1)	79(40.9)	2.10	3rd
Food selling	68(35.2)	0(0.0)	13(6.7)	112(58.0)	2.12	2nd
Carpentry	53(27.5)	11(5.7)	15(7.8)	114(59.1)	2.02	4th
Tie and dye	33(17.1)	12(6.2)	44(22.8)	104(53.9)	1.87	5th
Shoe making	15(7.8)	46(23.8)	12(6.2)	120(62.2)	1.77	6th

Source: Field Survey 2026. Number in Parenthesis= percentage. Key: 1.0– 1.74 = Low; 1.75 – 2.49 = moderate; 2.50 – 3.24 = high; 3.25 – 4.00 = very High

Table 4: Challenges Faced by Youths in Agricultural Livelihood Activities

Challenges	Frequencies			Mean	Rank
	Very serious	Serious	Not serious		
Difficulty in accessing land	182(94.3)	11(5.7)	0(0.0)	2.94	1st
Limited Agricultural credit	167(86.5)	26(13.5)	0(0.0)	2.87	3rd
Limited access to training	142(73.6)	51(26.4)	0(0.0)	2.74	4th
Inadequate extension services	139(72.0)	54(28.0)	0(0.0)	2.72	5th
Poor rural infrastructure	143(74.1)	50(25.9)	0(0.0)	2.74	4th
Inadequate market	171(88.6)	22(11.4)	0(0.0)	2.89	2nd
Low quality of farm inputs	120(62.2)	73(37.8)	0(0.0)	2.62	6th

Source; Field Survey, 2026.

Relationship between Non-Farm Livelihood Diversification and Youth Involvement in Agricultural Production

The correlation results in Table 5 showed a strong positive and significant relationship between non-farm livelihood diversification and youth involvement in agricultural production ($r = 0.832$, $p < 0.01$). Since the p-value (0.000) is less than 0.05, the null hypothesis was rejected. This implies that participation in non-farm livelihood activities significantly influences youth involvement in agricultural production. The positive relationship suggests that youths who engage in diversified livelihood activities are more likely to remain economically active and invest more resources into agriculture, suggesting that livelihood diversification strengthens income stability and enhances youths' capacity to sustain agricultural activities. This agrees with Boye *et al*., (2024), Dia *et al*., (2020) and Osabohien *et al.* (2021), who found that diversified livelihood strategies improve household income and reduce poverty among Nigerian youths engaged in agriculture.

Table 5: Relationship between Non-Farm Livelihood Diversification and Youth Involvement in Agricultural Production

		Youth involvement	Non-farm livelihood
Youth involvement	Pearson's Correlation	1	0.832**
	Sig. (2-tailed)		0.000
	N	193	193
Non-farm livelihood	Pearson Correlation	0.832**	1
	Sig. (2-tailed)	0.000	
	N	193	193

*** Correlation is significant at 0.01 level (2-tailed)*

CONCLUSION AND RECOMMENDATIONS

This study confirms that non-farm livelihood diversification is not a distraction from agriculture, but a strategic complement that strengthen youth engagement in agricultural value chains in Kwara State. Young people actively combine farming with non-farm enterprises to stabilise incomes, manage risk, and sustain their livelihoods in the face of structural constraints. The study thus recommends that policy makers and development actors should design support programmes on youth friendly land allocation schemes, affordable collateral-light credit products, agri-business training programmes aligned with high-return value chain that reflects the diversity of agri-business that are youth oriented.

Acknowledgements

Authors acknowledge the contribution of the respondents for providing us with data.

Authors' Contributions

TAD conceptualized the study and supervised the writing of the manuscript. SAA drafted the methodology and analysed the data. HOE & AO managed data collection and conducted the proofreading of the manuscript. All authors read and approved the final manuscript.

Ethical Statement

Not applicable.

AI Declaration

ChatGPT-5.6 Luna was used for language editing in the course of the final processing of this article.

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