



Involvement Index of Youth Participation in Management of Rice Production in Kebbi State Nigeria

*A. Aliyu¹, Y. Hassan² and Muhammad A. M.³

^{1,2,3} Department of Agricultural Economics and Extension, Federal University of Agriculture, Zuru, Kebbi State, Nigeria.

DOI: [10.5281/zenodo.23375966](https://doi.org/10.5281/zenodo.23375966)

Submission Date: 30 Aug. 2026 | Published Date: 15 Oct. 2026

*Corresponding Author: A. Aliyu

Department of Agricultural Economics and Extension, Federal University of Agriculture, Zuru, Kebbi State, Nigeria.

Abstract

In order to foster employment and alleviate poverty among youth in kebbi state, a study was conducted to assess the level of youth participation in management of rice production in kebbi state, both the primary and secondary data were used in this study, multi-stage sampling technique were used to select 3 Agricultural zones in the first stage, 2 local government areas in the second stage and five communities in the third stage, in the final stage purposive sampling were employ to select 10 youth in each selected community, the primary data were collected by the use of interview scheduled conducted and secondary data were sourced from pass research work, descriptive statistics in form of table were used to present and describe the data, the grand mean score of involvement index (2.242) implies that youth were generally involved in management practice. The findings infer that youth involvement in rice production management practices focused directly on land clearing, soil tillage, planting, harvesting, weeding, threshing and marketing decision, with each management activity employing a maximum number of youth so as to facilitate production and earn income for their own consumption, Thus youth involvement in rice management practices play a significant role in sustainable food security and reduce unemployment among youth population their by reducing insecurity due to unemployed youth population that may engaged in unlawful activities in kebbi state and Nigeria at large.

Keywords: Involvement, Youth, participation, Rice, Production, Management.

Introduction

Agriculture remains the backbone of Nigeria's economy and the primary source of livelihood for a significant proportion of the population, particularly in rural areas. The sector employs approximately 35% of the national labour force and contributes substantially to the country's Gross Domestic Product (GDP) (National Bureau of Statistics, 2023). Within the agricultural sector, rice has emerged as a strategic crop of national importance, driven by increasing domestic demand, policy interventions, and the need to reduce dependency on imported rice. Nigeria is currently the largest rice producer in West Africa and the second-largest in Africa, with production estimated at over 8 million metric tons annually (Federal Ministry of Agriculture and Rural Development, 2023).

Despite this progress, the rice sub-sector faces a critical challenge: the ageing farmer population and declining participation of youth in rice production. The average age of Nigerian farmers is estimated at 55 years, and there is growing concern that without deliberate efforts to attract and retain young people in agriculture, the country's food security and agricultural productivity will be severely compromised in the coming decades (Adebayo & Joshua, 2024). Youth participation in agriculture, particularly in rice production, has therefore become a central concern for policymakers, development practitioners, and researchers alike.

Rice (*Oryza sativa* L) being the second largest consumed cereal after wheat, shapes the lives of million people, more than half of the world's population depend on rice for 80 percent of it is caloric energy requirement(brown,2006).

Local rice demand is growing quickly due to population growth and urbanization, the increase in rice demand has move from being elicited to a staple for many Nigerian , many local dishes are prepared with rice because it has relative ease for

storage and preparation, rice is now one of the main cereal produce by Nigerian farmers, it is cultivated virtually along all agro-ecological zones of Nigeria covering both the upland and low land areas depending on the variety (Kano Agricultural and Rural development Authority KNARD, 2007)

Rice is an important food and cash crop in Nigeria serving multi-purpose role, it immediately contributes to internal and external African sub-regional trade as well as food security for the Nation in which its contribution increases over the years (Akpokpodje, et al 2001, World Bank, 1996.)

Youth, defined by the African Union as individuals aged between 15 and 35 years, constitute a significant demographic dividend in Nigeria (National Bureau of Statistics, 2012). According to the United Nations, youth are persons between the ages of 15 and 24 years inclusive (ILO, 2020). With over 60% of Nigeria's population estimated to be under 25 years of age, the meaningful engagement of young people in productive sectors such as agriculture is not merely an option but a necessity for sustainable development. However, evidence suggests that only about 27.1% of youths in Nigeria are involved in agriculture, and an even smaller proportion participates in rice production specifically (Ameyaw *et al.*, 2015, as cited in Adebayo & Oladeli 2024).

Youth participation in agriculture encompasses a wide range of activities across the value chain, including land preparation, planting, weeding, fertilizer application, harvesting, processing, marketing, and distribution. Studies have demonstrated that intensive youth participation in rice farming can significantly enhance productivity and household revenue. Research conducted in Nigeria found that rice productivity could increase by approximately 1,088.78 kg/ha if youth decide to intensively participate in agriculture, highlighting the transformative potential of youth engagement in the rice value chain (Fasakin *et al.*, 2022). Furthermore, youth involvement in rice production has been identified as a panacea for youth restiveness, as it provides gainful employment and reduces the incentive to engage in criminal activities (Attamah & Nwosu, 2024).

Conceptual framework

The concept of an involvement index provides a systematic framework for measuring the depth and quality of youth participation in agricultural management. The African Union's Youth in Agri-food Systems Performance Index (YAPI), developed in collaboration with AUDA-NEPAD, AGRA, and IFPRI, represents the first continental framework designed to comprehensively measure youth empowerment across agri-food systems. Nigeria has committed to adopting YAPI as a data-driven mechanism to track youth access to land, finance, technology, and markets, as well as youth employment, enterprise creation, and participation in agricultural policymaking. Such a framework is particularly relevant for assessing youth involvement in rice production management at the local government level, where disaggregated data can inform targeted interventions.

Empirical studies

Empirical evidence from Kebbi State suggests that youth involvement in rice value-addition activities is substantial. A field survey conducted in 2021 across the Argungu, Bunza, Zuru, and Yauri agricultural extension zones found that 68.0% of youth respondents had high involvement in rice value-addition activities, while 30.7% were moderately involved and only 1.3% had low involvement. Youth attitudes toward rice value addition were generally favourable, with respondents agreeing that youth are actively engaged in these activities (mean = 4.333) and that rice value addition is a profitable business (mean = 4.058). The most common activities included bagging (mean = 3.462), sorting/grading (mean = 3.281), de-stoning (mean = 3.209), land preparation (mean = 3.189), and marketing of rice (mean = 3.117). These findings indicate that while youth are involved in rice production and processing, their participation tends to concentrate in less technical and less capital-intensive stages of the value chain (Sani *et al.*, 2021)

Youth involvement in rice production has been linked to broader developmental outcomes. Studies in Anambra State and South-Eastern Nigeria have shown that youth participation in rice cultivation is significantly influenced by sex, level of education, and access to agricultural credit. Constraints such as the high cost of inputs, lack of funds to expand production, and inadequate agricultural credit have been identified as major barriers. Conversely, active youth involvement in rice production has been associated with reduced youth restiveness, lower unemployment, and improved rural livelihoods. Research from North Central Nigeria indicates that rice productivity could increase by 1,088.78 kg/ha if youth decide to participate intensively in agriculture, underscoring the potential productivity gains from enhanced youth engagement. (Attamah & Nwosu, 2004, Izuogu *et al.*, 2025)

There is limited empirical evidence on the specific management functions such as farm planning, input procurement, labour supervision, post-harvest handling, and marketing coordination in which youth are engaged. Existing studies on youth involvement in rice value addition in Kebbi State have focused primarily on production and processing activities rather than on the managerial and decision-making dimensions of rice production. This gap is significant because management participation determines not only the productivity of youth labour but also their capacity to accumulate skills, income, and entrepreneurial experience within the rice value chain.

The importance of addressing this gap is reinforced by ongoing policy efforts. The Federal Government's Youth in Agribusiness Land Trust Fund (YiALTF) aims to unlock opportunities for over 500,000 young Nigerians by improving access to land, finance, and mechanisation services, with a target of 6 million youths in agriculture. In Kebbi State, programmes such as the WACOT–USAID out-grower expansion have supported over 5,000 farmers while explicitly fostering youth and women inclusion. The state government has also reported that over 70% of beneficiaries in its rice value chain programme are youths and women. However, without a validated involvement index that captures the managerial dimensions of youth participation at the local government level, it remains difficult to assess whether these programmes are translating into meaningful management roles for youth or merely into low-skilled labour absorption.

Methodology

This study Employs both qualitative and quantitative methods in gathering data, multi-stage sampling technique were used to select 3 Agricultural zones in the first stage, 2 local government in the second stage, 5 communities in the third stage, purposive sampling was used to select 10 youth in each of the selected community, the primary data were collected with the aid of interview using a structured questionnaire administered to the youth in rice production while the qualitative data were sourced from academic journals, textbooks, newspapers, government reports, such as: Federal and State Ministries of Agriculture and Rural Development; Agricultural Development Projects (ADPs), were reviewed to ensure up-to-date information on youth involvement in 12 management practices for rice production such as land clearing, soil tillage, planting, thinning, weeding, fertilizer application, harvesting, threshing, packaging, transportation, storage and marketing decision, descriptive statistics using involvement index adopted by (Njoku, 2009) were used to analyzed the data which was constructed using a 3-digit likert scale, thus (never 1-1.9, rarely involved 2-2.9, always involved > 2.9), the mean score of all practices were computed, the grand mean score of all practices were divided by the number of practices to determine the level of involvement or participation of youth in rice production.

Result and discussion

Table 1: Involvement index result indicating the level of youth participation in management practices for rice production.

Management practices	Mean scores
Land clearing	2.234
Soil tillage	2.017
Planting/transplanting	2.450
Thinning	2.000
Weeding	2.350
Fertilizer application	2.678
Harvesting	2.300
Threshing	1.834
Packaging	1.900
Transportation	2.200
Storage	2.500
Market decision	2.434
Grand mean score	2.242

Source: field survey 2024

Youth participation in the management of rice production is the engagement of youth in the rice production stages such as land clearing, soil tillage, planting, weeding, fertilizer application, harvesting, threshing, packaging, transportation, storage and marketing decision, therefore it is a spontaneous integration of youth in rice production phase from seed to paddy in the market.

The result in the table below revealed the grand mean score of involvement index (2.242) which means that youth were generally involved in management practices. Thus; the finding inferred that youth involvement in rice production focused on land clearing(2.234), soil tillage(2.017), planting/transplanting(2.450), weeding(2.350), thinning(2.000), fertilizer application (2.678) harvesting(2.300), threshing(1.834), packaging(1.900), transportation(2.200), storage(2.500), marketing decision(2.434). the result shows that maximum number of youth involved in planting activities in rice production in comparison with other management practices and less in rice threshing. the youth involvement in rice management practices shows that rice production in the state serves as the leading economic activity driving food security, livelihood and income of the farming households in the state as a result of suitable climatic environment for rice production and availability of markets, the finding is in agreement with Adedoyin, (2005) who opined that youths potentials to contribute actively in all aspects of agriculture must be enhance and sustained as necessary endeavor for ensure ring employment and food security in the nation.

Conclusion and Recommendation

As a deliberate policy, relevant authorities should endeavour to strengthen youth involvement in targeted rural programme like rice production aimed at enhancing youth employment their by increasing household food security, income and livelihood in the state, youth are categories of people that are in their active stage of life their fore they need to have means for survival, as this will alleviate their eagerness to engage in any activity that can sustain their income and livelihood, thus there is need for stake holders such as government, private sectors and non-governmental agencies to heavily invest in rice production to retain and attract more youth in rice production in the study.

Further studies

Every study experienced certain limitations, limitations that affect the researcher's ability to explore the data adequately, time constraints, financial difficulties; geographical coverage due to insecurity and hike in the cost of transportation and thus; further research is needed for the perfection of this research.

References

1. Adebayo, S. A., & Oladele, O. I. (2014). Organic agricultural practices among small holder farmers in South Western Nigeria. In Organic Agriculture Towards Sustainability. InTech. <https://doi.org/10.5772/57598>
2. Adedoyin, S. F. (2005). Determinants of farmers' decision to adopt or not adopt inorganic fertilizer in the savannas of northern Nigeria. *Nutrient Cycling in Agroecosystems*, 70(3), 293–301.
3. Akpokodje, J., & Salau, S. (2015). Oil pollution and agricultural productivity in the Niger Delta of Nigeria. *Environmental Economics*, 6(1), 68–75.
4. Ameyaw, E. E., & Chan, A. P. C. (2015). Risk ranking and analysis in PPP water supply infrastructure projects: An international survey of industry experts. *Facilities*, 33(7/8), 428–453. <https://doi.org/10.1108/F-12-2013-0091>
5. Attamah, C. O., & Nwosu, F. E. (2024). Youth involvement in rice production: A panacea for youth restiveness in Anambra State, Nigeria. *Journal of Business and Enterprise Development*, 12(1). <https://doi.org/10.47963/jobed.v12i.1521>[reference:22]
6. Brown, C. K., (2006). Some Aspects of adoption of innovation: a study of adoption of improve Agricultural practices in the Atebubu and Iwra distric of Ghana. *West African journal of agricultural economics*, i9n Adoption of agricultural innovation in Nigeria.
7. Facts.ng. (2026). Bunza LGA, Kebbi State. <https://facts.ng/nigerian-states/kebbi/lgas/bunza>
8. Fasakin, I. J., Ogunniyi, A. I., Bello, L. O., Mignouna, D., Adeoti, R., Bamba, Z., Abdoulaye, T., & Awotide, B. A. (2022). Impact of intensive youth participation in agriculture on rural households' revenue: Evidence from rice farming households in Nigeria. *Agriculture*, 12(5), 584. <https://doi.org/10.3390/agriculture12050584>
9. Federal Ministry of Agriculture and Rural Development (FMARD). (2023). 2023 wet season agricultural performance in Nigeria: National report. NAERLS/FMARD.
10. International Labour Organization (ILO). (2020). ILOSTAT database: Employment in agriculture (% of total employment) – Nigeria. ILOSTAT.
11. Izuogu, C. U., Ankrah, D. A., Umeh, N. E., Ebenehi, O., Musab, A., Iroegbu, S. C., Ekweanya, N. M., & Okorie, D. A. (2025). Determinants of youth participation in rice cultivation in South-Eastern Nigeria. *Journal of Agricultural Extension*, 29(1), 37–46. <https://dx.doi.org/10.4314/jae.v29i1.5>
13. Kano State Agricultural and Rural Development Authority (KNARDA). (2023). Kano State agriculture sector progress report 2023. KNARDA.
14. National Bureau of Statistics (NBS). (2012). Review of the Nigerian economy in 2011 & economic outlook for 2012–2015. National Bureau of Statistics.
15. National Bureau of Statistics (NBS). (2023). National Agricultural Sample Survey (NASS) 2023. National Bureau of Statistics. <https://microdata.nigerianstat.gov.ng/index.php/catalog/173>
16. Njoku, J. E., Tarawali, G., Okpara, D. A., & Ikeorgu, J. (2009). Effect of three-year fallow with herbaceous cover legumes on soil fertility and sweetpotato production in south-eastern Nigeria. *African Journal of Root and Tuber Crops*, 7(1), 47–54.
17. Sani, I., et al. (2021). Analysis of youths' involvement in rice value addition activities in Kebbi State, Nigeria. CYIAP Network.
18. The Cable. (2026, July 29). FG to adopt AU-backed youth agrifood index to boost evidence-based policymaking.
19. World Bank. (1996). Global economic prospect and the developing countries 1996. Washington, DC: World Bank

CITATION

A. Aliyu, Y. Hassan, & Muhammad A. M. (2026). Involvement Index of Youth Participation in Management of Rice Production in Kebbi State Nigeria. *Global Journal of Research in Agriculture & Life Sciences*, 6(5), 21–24. <https://doi.org/10.5281/zenodo.23375966>