NIGERIAN YOUTH INVOLVEMENT IN RICE PRODUCTION: A CASE STUDY OF LAFIA LOCAL GOVERNMENT AREA, NASARAWA STATE

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ABSTRACT

The study was conducted in Lafia Local Government Area of Nasarawa State to examine rural youth involvement in rice production. A two-stage purposive sampling technique among villages noted for the production of rice was used to select forty youths as respondents. Simple descriptive statistics involving frequency counts, percentages, rank order score, participation index and multiple regression analysis were used to analyse the data. The grand participation index infered that youth in the study area were rarely involved in rice production. The major constraints faced by youth in rice production in the study area were inadequate capital, farm inputs and farming land. The study recommended that improvement in the provisions of inputs supply and farm land, less vigorous credit measures and fixing of credit ceiling to specified maximum levels should be put in place on appropriate financial institutions by relevant authorities.
Keywords: *Youths, Involvement, Rice Production and Constraints.*

INTRODUCTION

Youth in agriculture has been described as a very important structure for land and agrarian reform which will go a long way towards promoting the interest of youth in the agricultural sector of the economy (Gwanya, 2008). Jibowa (2005), describes youth as the constituent of a potent agricultural development. Also, Odebode (2000) opines that in Nigeria, youth formed a very significant proportion for rural communities for which their existence and potentials are well known. They constitute a large component of a country's population and contributed alot to the development of the nation and in particular their local communities. Okeowo, Agunbiade and Odeyemi (1999) describe Nigerian agricultural production as still being carried out through the use of physical strength, which declines with age. This, according to him, has been observed as one of the major constraints to agricultural production in Nigeria.

Involvement of youth in agriculture especially staple foods production as rice is vital to facilitate the production of food and the improvement of nutrition. According to Seynes (1964), the roles of which rural youths in rice production can play include a mobilization tool through which rural youths can be made productive both to

themselves and to their communities. He argues that such rural mobilization could enhance the orientation of the mind of young rural people by promoting positive attitude towards the worth and dignity of labour. It would also promote the status of farming by giving young people opportunities, profitable enterprises and improving the lot of the community through service projects. Evidence has however, shown that a number of factors militate against youth participation in rural community development efforts to ensure transformation in behavior and in their involvement in rural community development activities. Due to the enormous potential known to be considerably underutilized, it becomes obvious to identify where youth involved in rural development could be utilized for a desired change in the rural areas and the country at large. Youth with sound physical and mental health are the active population of any nation. Hence, their involvement in agricultural activities goes a long way in shaping the developmental height of the nation.

Rice is an important food and cash crop in Nigeria. Rice serves multipurpose roles: it immensely contributes to internal and external African sub-regional trade as well as food security for the nation. Rice contribution in Nigeria has been on the increase over the years (Akpokodje, Hamcon and Erenstein, 2001; World Bank, 1996). As a result of urbanization, rice constitutes a major portion of the expenditure on cereals based diets of most Nigerians. Rice production over the years has been inadequate to bridge the demand/supply gap, thereby causing the country to result to imports. The rising import value of rice resulted compelled government to place an embargo on its importation in 1985. After the lifting of the embargo in 1995, Akpokodje, Hamcon and Erenstein (2001) reported that 34.4 billion Naira was spent on rice imports between 1995 and 1999. Rice production predominantly occurs in the guinea savanna zone of the country sometimes referred to as the middle belt region, where Lafia Local Government is located. It is also reported that average yield of upland and lowland rain-fed in Nigeria (including the study area) is 1.8 ton/ha while that of the irrigation system is 3.0 ton/ha. This appears low compared with 3.0 ton/ha for upland and lowland system and 7.0 ton/ha for irrigated system in countries like Cote d'iviore and Senegal (WARDA, 1996 and NAERLS, 2001).

Youth involvement in rice production will therefore not only boost the much needed narrowing gap of demand and supply of rice in the Nigerian markets, improve the socio-economic life of the rural people but will also encourage development of vocational agriculture among the rural youths. The study was intended to determine the level of youth involvement in rice production in the study area. The finding was also designed to provide information on the contribution of youths in rice production, their constraints, and technical support needed to improve their output in rice production. Rural youths in Nasarawa State contribute significant development efforts but their contributions are usually undervalued and their economic potentials not fully utilized. In recognition of this, drastic steps need to be taken to integrate the physically and mentally active individuals in the revitalization of the agricultural sector, if food stuff must be available to all and sundry table. This category of national citizenry

that are capable of making such contribution is the youths, who are unfortunately seen as national burden and in-fact remain untapped rural resources (Adedoyin, 2005).

METHODOLOGY

The study was conducted in Lafia Local Government Area of Nasarawa State. The population of the area is 330,712 (NPC, 2006). The Local Government Area is located between latitude 709' N, longitude 709' E,). Lafia Local Government Area shares common border with Obi, Keana, Nasarawa, Doma to the East, East-South, North and West and Quan pan Local Government Area to the East-North respectively. The major ethnic groups in the area include Kanuri, Hausa/Fulani, Alago, Migili, Akye, Tiv, Gwandara, and Rindre. Crops grown in the study area include Yam, maize, rice, millet, soyabean, beniseed, cassava, sweet potatoes and cocoyam. Farmers in the study area also keep livestocks such as cattle, poultry, goats, sheep, and pigs. And the permanent tree crops planted by farmers include: oranges, mangoes, and cashew. A two-stage sampling technique was used for the study. First, four villages where purposively selected out of the 8 villages noted for the production of rice within Lafia Local Government Area. In the second stage, the households where purposively selected from each of the four villages making a total of forty households. From each village, one youth was sampled out of each of the households, making 40 youths as respondents for the study.

Primary data were collected with the aid of an interview schedule which was administered to youths by the researcher in the study area. Data were collected over a period of two weeks during the planting season of 2010. Simple descriptive statistics involving frequency counts, percentages and ranking order score were used to satisfy objectives one, and four. Objective two was achieved using a Participation (Involvement) Index. The Participation Index was constructed using a 3-point likert scale. The respondents were asked to indicate their level of participation (Never, Rarely and Always) in ten management practices involving rice production. The 3-point scale was weighed in order of importance from, Never Involved = 1, rarely involved = 2, and Always involved = 3. The mean score for each of the practices was calculated and the grand mean scores of all the practices was divided by the number of practices to determine the level of participation of youths in rice production in the study area. The scale below was used to determine the level of participation for each practice involved in rice production.

Level of Participation	Participation Index Score
Always involved	>2.9
Rarely involved	2-2.9
Never involved	1-1.9

Multiple Regression analysis was used to satisfy objective three. The model was specified as:

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_yx_y + u$$

where:

Y = Participation Index of Respondent
a = Constant Term
X_1 = Age (years)
X_2 = Level of Education (years)
X_3 = Source of Inputs. (0=local or 1= modern)
X_4 = Access to Credit. (1=Yes or 0= No)
X_5 = Co-operative Participation (years)
X_6 = Contact with Extension (no. of contact/year.)
X_7 = Experience in rice production (years)
b_1-b_7 = Regression Co-efficient
U = Error Term

RESULTS AND DISCUSSION

Socio-Economic Characteristics of Youths Involved in Rice Production

The socio-economic characteristics of youths involved in rice production are presented on Table 1. majority of the respondents were within the age range of 18-25years while 32.5% and 20.0% were between the ages of 26-34 and 35-43 years respectively. Mean age of youths involved in rice production in the study area was 26.5 years. This agrees with Okeowo, Agunbiade and Odeyemi (1999) who opined that in Nigeria, agricultural production is still carried out using physical strength which deals with ages. The results also showed that 82.5% of the youths involved in rice production were married and 17.5% were single. The results inferred that, in the study area, a man must be married before he was socially considered to be an adult. This agrees with Ani (2004).

The results further showed that 37.5%, 57.5% and 2.5% of the youths involved in rice production had non-formal, primary, secondary and tertiary education respectively. This agrees with Idrisa, Gwary and Ibrahim (2006) who identified low level of formal education to be associated with less likelihood of respondents to understand the scientific basis of agriculture and superiority of improved practices. Most of the youths in rice production were members of cooperative organizations. According to Njoku (1991) cooperative membership enhances access to information on improved techniques, and material inputs of the technologies, chemicals and credit for purchase of inputs and payment of hired labour. Furthermore, 77.5% of the respondents had access to credit while 22.5% had no access to credit. This infers ability to purchase inputs embodied in new technology and also to pay for hired labour needed for use of these inputs and improved management practices (Njoku, 1991). Vibrant and expanding market for primary and secondary agricultural commodities could possibly be the basis for enhanced credit facilities due to expected opportunities for young people to earn good income from rice production activities. The results on table 1 also show that 65.0% of the youths in rice production had

contact with extension workers while 35.0% had no record of contact with extension workers. According to Njoku (1991), high level of adoption signifies increased intensity of extension services of farmers' information and educating them on improved agricultural technologies. The results also showed that 50.0% of youths in rice production between 37.5% and 12.5% had 6 - 10 years and 1 - 5 years of farming experience respectively.

Youths Involvement in Management Practice for Rice Production

The results from table 2 show that clearing of land (mean = 2.272), soil tillage (mean = 2.70), planting/broadcasting (mean = 2.68) and rice harvesting (mean = 2.65) constituted the major management practices involved by youths in the study area. However, youths involvement in rice production was moderately observed in weed/herbicide spraying (mean = 2.48), marketing decision (mean = 2.43) and threshing (mean = 2.38). The involvement of youth in various farm management practices inferred that they were born into farming, socialized into farming and were found to have developed sufficient ruggedness suitable for farming right from their tender age. This agrees with Adedoyin (2005) who opines that youth's potentials to contribute in all significant aspects of agriculture must be enhanced and sustained as necessary endeavour for ensuring food security in the nation.

Factors Affecting Youths Involvement in Rice Production

The results on Table 3 show that the variation in factors affecting youth's involvement in rice production was 78.0% of the independent variables included in the model. The results revealed positive and significant relationship between youth's involvement in rice production and years of experience, access to credit, and source of negative and significant relationship with contact with extension workers, organizational membership and age.

The regression results show that access to credit was positive and significant ($p < 0.01$). This infers that accessibility to credit would encourage youths' involvement in rice production. According to Obeta and Nwagbo (1991) high volume of credit, would readily attract adoption of more of the technologies involving extra costs. Source of inputs was positive and significant ($p < 0.05$) implying that accessibility to modern inputs will trigger youth's involvement in rice production. Obeta and Nwagbo (1991) argued that efficient distribution channels and mechanism would encourage adoption of agricultural technology. They further argued that unavailability of agricultural technology inputs would cause discontinuance of adoption among farmers. On the other hand, age was negatively significant ($p < 0.05$) implying that younger youths tend to be involved with rice production than the older ones. The result agrees with the works of Akinola (1986) and Brown (1972) who reported that young farmers tended to be more flexible in their decision, adopt new ideas more readily because of anticipated longer life span within which the investment in new technology would pay off. Hence, the expectation was that many young farmers would be adopters

while the older farmers would be non - adopters. Contact with extension workers was negative and significant ($p < 0.01$). This inferred that no direct contact with the extension agents by youths involved in rice production but the information from extension personnel could have reached the youth indirectly through interpersonal contacts. Such insignificant effect of contact with extension agents could also result if the extension programme was ineffective. The result of the regression analysis further showed that coefficient of membership of organization (cooperative) was negative and significant ($p < 0.05$). Cooperative membership enhances accessibility to information on improved technologies, material inputs of the technologies such as fertilizers and chemicals, and credit for the purchase of inputs and payment of the hired labour (Njoku, 1991). Negative coefficient resulting from analysis, therefore inferred that youths involved in rice production were not members of cooperative organization.

Years of experience was positive and significant ($p< 0.05$) implying that the more years of involvement in rice production the greater the level of participation. According to Nwike and Chidebelu (1991) the variable of years of experience was positively related to adoption at both 1% and 5% levels implying that the more the farming experience, the more the adoption of the recommended packages. However, their further analysis of the variable showed that the critical group was those with more than 39 years of farming experience. They further argued that the group coincided mostly with farmers aged 60 years and above and concluded therefore that farmers with less than 29 years of farming experience were significantly different from those with 40 or more years of experience.

Constraints Faced by Youths in Rice Production

Major constraints identified by all respondents (ranked 1st) their involvement in rice production was inadequate capital presented on Table 4. Ogungbile and Olukosi (1991) opine that a typical Nigerian farmer uses little amount of capital. They claim that there is little capital investment in farming tools and equipment, which consist of hoes and cutlasses. According to Ogungbile and Olukosi (1991), traditional use of capital (cash and credit) is for hiring labour and meeting expenses and cash transfer within and between families are quite frequent and important in meeting farm expenses. Odoemenem, Erhabor and Olukosi (1991) reported problems emanating from unavailability of credit include low productivities, inability to adopt modern techniques, poor marketing and distribution arrangements, poor market information as a result of inadequate infrastructure, lack of credit facilities and poor rate of capital formation. In the study area, agriculture is predominantly peasant with traditional system of cultivation as a dominant practice; farm holdings are small while the system is characterized by use of simple tools such as cutlasses and hoes. Also in the study area, capital investments are small and modern inputs such as fertilizers, chemicals and improved seeds are generally not widely used by small holders subsistence production and mixed cropping form the main features of the system.

Youths in the study area further identified inadequate farm inputs (ranked 2nd)constituting a significant constraint to their involvement in rice production. This agrees with Obeta and Nwagbo (1991) who reported that adoption of innovations could be seriously hampered by poor distribution of technological inputs. Unavailability of farm land was ranked third among the constraints identified by youth in their rice production efforts. Sources of land in the study area included acquisition by inheritance, renting/ lease holding, purchasing as well as communal ownership. Such land tenure system operating in the study area seemed to deprive individuals from planning a large scale agricultural production due to the fact that family or any individual has the right of ownership to land to grow crops.

Inadequate storage facilities (ranked 4th) and inaccessibility to information (ranked 5th) were also identified by youth's involvement in rice production as significant constraints to their activities respectively. According to Obeta and Nwagbo (1991), primary goals of information source is to create awareness by diffusing among potential adopters, such as the youths engaged in rice production, useful and practical information on the innovation and encourage its application. In the case of inadequate storage facilities, Daramola (1991) opined that insect pests infestation had long been recognized as a major source of crop loss during storage especially in the Third World countries like the study area where the modern and effective storage structures and inputs were out of the reach of the predominantly peasant farmers.

CONCLUSION AND RECOMMENDATIONS

The study revealed that youths in the study area were rarely involved in rice production. The major factors affecting their involvement in rice production were years of experience, organization membership, access to credit, source of inputs/ implements and extension contacts. The major constraints faced by youth in rice production were inadequate capital, inadequate storage facilities, inadequate farm lands, inaccessibility to information on farming practices and inadequate farm inputs. The youths involved in rice production should be helped and be encouraged by relevant authorities through the provision of needed resources to alleviate the constraints identified in the study area. Youths involved in the programme of rice production should have access to micro-finance institutions and government should ensure more credit control of these institutions so as to enhance their capital acquisition requirements and to ensure greater productivity.

Table 1: Socio-Economic Characteristics of the Youths Involved in Rice Production

Variable	Frequency	Percentage
Age		
18-25	19	47.5
26-34	13	32.5
35-43	8	20.0
Total	40	100
Marital status		
Single	7	17.5
Married	33	82.5
Divorced	0	0
Widow	0	0
Total	40	100
Educational qualification		
Non formal	15	37.5
Primary	23	57.5
Secondary	1	2.5
Post secondary	1	2.5
Total	40	100
Years of experience		
1-5	5	12.5
6-10	15	37.5
11-15	20	50.0
Total	40	100
Membership of Cooperative		
Yes	29	72.5
No	11	27.5
Total	40	100
Access to credit		
Have access	9	22.5
Do not	31	77.5
Total	40	100.0
Contact with extension worker		
Have contact	14	35.0
Never	26	65.0
Total	40	100.0

Source: Field survey, 2010

Table 2: Involvement Index Result Indicating the level of Youths Involvement in management practices for rice production.

Management practices	Mean score
Land clearing	2.72
Soil tillage	2.70
Planting/ broadcasting	2.68
Harvesting	2.65
Weeding/herbicide spraying	2.48
Marketing decisions	2.43
Threshing	2.38
Fertilizer application	2.35
Record keeping	1.85
Thinning	1.67
Grand mean score	2.36

Source: Field survey, 2010

Table 3: Regression Results Showing the Socio-Economic Factors Affecting Youths Involvement in Rice Production

Variables	Regression Coefficient	Standard Error	T-value
Constant	2.157	0.346	6.233***
Age	-0.140	0.058	-2.389**
Educational status	-0.006	0.049	-0.124NS
Organizational membership	-0.222	0.101	-2.191**
Access to credit	0.381	0.137	2.790
Contact with extension worker	-0.232	0.130	-1.780*
Source of input/implement	0.169	0.085	1.991*
Experience	0.171	0.069	2.466**

Source: Field survey, 2010.

***= Significance of 1%; **= Significance of 5%; R^2 =0.78

R^2 =measure of degree of variation in dependent variable Y that was explained by the independent variables.

Table 4: Distribution of Respondents in Accordance with Constraints faces by Youths in Rice Production.

Constraints	Frequency	Percentage	Ranking
Inadequate capital	40	100.0	1st
Inadequate storage facilities	24	60.0	4th
Inadequate farm lands	33	82.0	3rd
Inaccessibility to information on farming practices	23	27.0	5th
Inadequate farm input	34	85.0	2nd
Total	154*		

*Multiple responses were allowed hence the total frequency exceeded the sample size.

Source: Field survey, 2010

REFERENCES

Adedoyin, S.F. (2005). Youth and Children Programme in Nigeria. In Adedoyin, S. F.(ed) Agricultural Extension in Nigeria. AESON. 251 Pp.

Akinola, A. A. (1986). Nigerian Farmers and their Adoption of Cocoa Spraying Chemicals. *Nigerian Journal of Rural Development and Cooperative Studies,* 1 (3), 60 - 79.

Ani, A. O. (2004). Women in Agriculture and Rural Development. Maiduguri: Danladi Press.

Akpokodje G., Hamcon F. and Erenstein O. (2001). Nigerian's Rice Economy: State of the Act. In the Nigerian Rice Economy in a Comperative World: Constraints and Strategic Choices Final Report presented to West African Rice Development Association (WARDA), Bounce, Cote D'ivoire. 53pp. In Comparative Analysis of Technical Efficiency in Swamp and Upland Rice Production System in Cross River State Nigeria by Idiong C., Damian J. Aguw and Susam B. Ohen. Proceeding of the Farm Management Association of Nigeria (FAMAN) September 18th-21st,2006, Jos Plateau State. 30-38. Pp.

Brown, C. K. (1972). Some Aspects of Adoption of Innovation, A Study of Adoption of Improved Agricultural Practices in the Atebubu and Lawra Districts of Ghana. West African Journal Of Agricultural Economics. In Adoption of Agricultural Innovations in Nigeria: A Case Study of an Improved IITA Cassava Technology Package in Anambra State by M.E. Obeta and E.C. Nwagbo in the proceedings of National Farming System Network. 231 - 244 pp.

Daramola, A. M. (1991). Postharvest Grain Loss and Evaluation of Grain Smoking for the Control of Storage Insect Pests of Maize. *Proceeding of National farming System Network,* p109

Gwanya, T. (2008), Address by the Director-General at the Launch of Youth In Agriculture and Rural Development (YARD) On 20-22 June 2008, Goudini Spa, Western Cape Department of Land Affairs, Republic of South Africa retrieved on 1st september, 2010 at http//www.land.pwv.gov.za/.../Publications/2008/Speech%20of%20DG%20at%20YARD%20Launch%20Goudini%20Spa.pdf.

IdrisaY. L., Gwary M. M. and **Ibrahim A.** (2006). Determination of Adoption of Cassava Farming Technologies in Mubi North Local Government Area of Adamawa State, Nigeria. In Production Agriculture and Technology (PAT), Faculty of Agriculture, Nasarawa State University, Keffi. 16 - 37 pp.

National Agricultural Extension and Research Liason Service (NAERLS) (2001). Proceeding of the National Rural Youths Workshop: An Invited Paper. In C. J. C Akubuilo, J. U. Mgbada, I. J. Chidobenem, D. U. Akubuilo, and H. C. O. Aniadoh (eds) Sustainable Children-in -Agriculture. 265, 17-49pp

National Population Commission (NPC) (2006). Annual Census Report, 1991. Abuja Nigeria.

Njoku, J.E. (1991). Factors Influencing the Adoption of Improved Oil Palm Production Technologies by Smallholders in Imo State, Nigeria. In Proceeding of national Farming System Research Network. 207 -218 pp.

Nkuju, C.W. (2009). Analysis of Women Involvement in Livestock Production in Lafia Local Government Area of Nasarawa State. Unpublished paper. 12 pp.

Nwike, C.C and **A.N. Chidebelu** (1991). Appraisal of Yam Minisett Technique by Farmers in South - Eastern States of Nigeria. Proceedings Of National Farming System Network. 247 - 253 pp.

Obeta M. E. and **Nwagbo E. C.** (1991). The Adoption of Agricultural Innovatios in Nigeria: A Case Study of Improved IITA Cassava Technology Package in Anambra State. Proceedings of National Farming System Research Network. 231 - 245 pp.

Odebode, S. O. (2000). Youth Participation in Rural Development: A Case Study of Selected Youth Programme in Lagelu local Government Area of Oyo State, Nigeria. In Sustainable Children-in-Agriculture programme in Nigeria, CIP 2000-Enugu Book of Proceedings. 254-259.pp

Odoemenem I. U., Erhabor P.O. and **Olukosi J.O.** (1991) The Role of Credit Institutions and Private Sector In Appropriate for Resource - Poor Farmers. Proceeding for Nation Farming System Research Network. 269 - 275 pp.

Ogungbile, J. O. and **Olukosi, J. O.** (1991). Resource - Poor Farmers in Nigeria Agriculture, Lead Paper: An Overview of the Problems of the Resource - Poor Farmers In Nigerian Agriculture. In proceeding of the National farming System Research Network. 219 - 230 pp.

Okeowo T. A., Agunbiade J. B. and **Odeyemi L. A.** (1999). An Assessment of the Level of Involvement of Farm-Children In Farming Decisions in Ikorodu Area of Lagos State. In Stella, B.W.; Oginni, F.O. and Akinloye, J. F. (eds).Farm Children and Agricultural Productivity in the 21st Century. Proceedings of the Second Annual Conference of Children-In- Agricultural Programme (CIAP) held at the Conference Centre, O.A.U., Ile-Ife May. 275 - 282. Pp.

Seynes, P. D. (1964). Youth and development. Interactional Conference on Youth. Grenoble. 178-185pp. In Sustainable Children-in-Agriculture. June 6-8. 269-275. Pp.

West Africa Rice Development Association, (WARDA) (1996a). Rice Trends in Sub-Saharan Africa, Second Edition. WARDA, Bouaké: Open Center and Task Force Approach to Collaboration. Bouaké, Côte d'Ivoire: West Africa Rice Development Association. 21-22. Pp.

WARDA (1999a). Rice Interspecific Hybridization Project: Research Highlights 1999, Bouaké. Côte d'Ivoire: West Africa Rice Development Association. 31-35. Pp.