

## Assessment of youth involvement in small scale rice production in Obafemi Owode local government area of Ogun state

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**Abstract:** The study was conducted in Obafemi Owode Local Government Area of Ogun State, to assess youth involvement in small scale rice production. Systematic sampling technique was used to select one hundred and twenty youths from rice growers' association in the study area. Simple descriptive statistics (frequency count, percentage, rank and score) and inferential statistics (Pearson correlation and chi-square) were used to analyse the data. The mean age of youths involved in rice production in the study area was 22.1 years. Majority (74.2%) of the youth in rice cultivation in the study area were literate. The major constraints faced by youth in rice production in the study area were processing (97.5%), poor storage facilities (90.0%), birds' infestation (85.0), high cost of production (77.5%) and high poll tax (62.5%). There were significant relationships between respondents' age ( $r=0.220$ ,  $p=0.021$ ); income ( $r=0.084$ ;  $p = 0.046$ ); farm size ( $r = 0.067$ ;  $p = 0.050$ ) and the youth involvement in rice cultivation. Ridging ( $\chi^2 = 32.096$ ;  $p = 0.000$ ); weeding ( $\chi^2 = 4.377$ ;  $p=0.036$ ); fertilizer application ( $\chi^2 = 17.072$ ;  $p = 0.000$ ) as cultivation practices were significantly related with the youth involvement in rice cultivation. The study recommended that youth farmers should form cooperative groups, so as to pool fund together and construct storage facilities in the study area.

**Keywords:** Youth, Small scale production, Rice cultivation, Storage facilities, Rice growers' association.

### INTRODUCTION

In Nigeria, rice has emerged as one of the fastest growing agricultural sub-sectors and has moved from a ceremonial to a staple food in many Nigerian homes within the last two decades, such that some families cannot do without rice in a day. Nwachukwu, Agwu and Ezeh (2008) reported that as a staple food in Nigeria, rice accounts for 40 percent of the diet of the country's population but production has been growing at a slow rate relative to consumption within the last years. It is also reported that average yield of upland and lowland rain-fed in Nigeria (including the study area) is 1.8 tons/ ha while that of the irrigation system is 3.0 tons/ha. This appears low compared with 3.0 tons/ha for upland and lowland system and above 5 ton/ha in input- intensive irrigated system in Asia. (Ismail, Singh, Dar and Mackill, 2013). 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). Jibowo (1998) 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 a lot to the development of the nation and in particular their local communities. Okeowo, Agunbiade and Odeyemi (1999) describe Nigerian agricultural production as relying on 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 therefore vital to facilitate the production of food and the improvement of nutrition. 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. It is against this background that this study investigated the level of youth involvement in rice production in the study area. Specifically, this study:

- i. Described the socioeconomic characteristics of the respondents in the study area.
- ii. Identified the youth's involvement in rice cultivation.
- iii. Identified the constraints faced by the youth in rice production in the study area.

The study hypothesised that:

H<sub>0</sub>1: There is no significant relationship between selected socio-economic characteristics of the respondents and their involvement in small scale rice cultivation.

H<sub>0</sub>2: There is no significant relationship between cultivation practices and youth involvement in rice cultivation.

### METHODOLOGY

The study was carried out in Obafemi/Owode Local Government Area of Ogun State, Nigeria. Its headquarters is Owode town. Agriculture is the major occupation in the area with rice and maize mostly cultivated, while few engage in livestock and fish farming. Systematic sampling technique was used to select respondents for the study. According to the national youth development policies (FGN, 2001) defines youth as people aged between 18-35 years, and constitute about 40 million in Nigeria. Rice growers' association register in the local government was accessed, 1200 farmers within the age range of 18-30 years were found in the association register. Every 10<sup>th</sup> of the youth was systematically chosen for the

research work to give 120 respondents. Data was collected through the use of interview schedule and analysed using both descriptive statistics (frequency counts and percentages) and inferential statistics (Pearson Product Moment Correlation (PPMC) and Chi-square).

## RESULTS AND DISCUSSION

### Socioeconomic characteristics

Above average (50.8%) of the respondents were within the age range of 18 - 21 years, while 20.0% and 27.5% were between the ages of 22 - 24 and 25 - 27 years, respectively. The mean age of youths involved in rice production in the study area was 22.1 years. Agboola, Adekunle and Ogunjinmi (2015) were of the opinion that this age could make them be in better position to have access to training and skill acquisition in indigenous practices in cultivation, processing and even marketing. The results also show that 81.7% of the youths involved in rice production were single and 7.5% were married. This implies that majority of the respondents were still under the control of their parents. It was also revealed that majority (93.3%) of the respondents were male, while only 6.7% were female. This is in line with Nwibo, Mbam, and Biam (2016) that most of the agripreneur in Ishielu local government area of Ebonyi state were male. This may be due to the tedious nature of the

operations involved in rice cultivation. The mean farm size was 2.6 hectares. The small-scale farming of the respondents may be attributed to their inadequate access to land for farming. It could also be attributed to the use of primitive implement like hoes and cutlasses in carrying out farming activities. The finding is in consonant with Adesoji (2002) who reported that majority (95.0%) of arable crop farmers in Osun State were small scale farmers. Only 25.8% of the respondents had no formal education, it means majority (74.2%) of the youth in rice cultivation in the study area were literate. This implies that the respondents would understand innovations easily and thereby adopt innovation easily and quickly. Ogunbamere (2014) reported that highly educated farmers can get information on modern agricultural production techniques from a wide range of source such as extension agents, electronic or print media and internet. It is also in line with American Farm Bureau Foundation for Agriculture (2019) that agriculturally literate persons understand the relationship between agriculture and environment. Most of the youths in the study area were members of one social organisation or the other. It implies that youth in rice cultivation in the study area will have access to information on improved technologies, reputable sources of inputs and credit.

**Table 1: Distribution of Respondents According to Socio- Economic Characteristics**

Socioeconomic characteristics	Frequency	Percentage	Mean
<b>Age (years)</b>			<b>22.1</b>
18-21	61	50.8	
22-24	24	18.3	
25-27	35	29.1	
28-30	02	1.6	
<b>Sex</b>			
Male	112	93.3	
Female	8	6.7	
<b>Religion</b>			
Christianity	58	48.3	
Islam	60	50.0	
Traditional	2	1.7	
<b>Marital status</b>			
Single	98	81.7	
Married	9	7.5	
Divorce	7	5.8	
Separated	6	5.0	
<b>Educational status</b>			
Primary	14	11.1	
Secondary	62	51.7	
Tertiary	11	9.2	
Adult education	2	1.7	
No formal education	31	25.8	
<b>Size of farm (ha)</b>			<b>2.6</b>
≤1.00	22	18.3	
2.00	61	50.8	
3.00	9	7.5	

Socioeconomic characteristics	Frequency	Percentage	Mean
4.00	18	15	
5.00	1	0.8	
6.00	4	3.4	
8.00	5	4.2	
<b>Cosmopolitaness</b>			
Daily	20	16.7	
Weekly	27	22	
Monthly	14	11.7	
Occasionally	59	49.11	
<b>Member of association</b>			
Yes	85	70.8	
No	35	36.3	
<b>Income per annum</b>			<b>270,842</b>
<100,000	22	18.3	
100,000-500,000	96	80	
501,000-1,000,000	2	1.7	

Source: Field Survey, 2019

#### Youths' involvement in rice cultivation practices

Table 2 shows that 99.2% of the respondents claimed that they are involved in land clearing which was one of the major cultivation practices in rice production. It further reveals that 97.5%, 95.7%, 91.7%, 86.7% and 80.8% of the respondents claimed to participate in harvesting, control of pest/birds, fertilizer application, ridging and weeding, respectively as cultivation practices. To support the importance of fertilizer application as a cultivation Practice, Jing, Zhang, Rengel and

Shen (2012) stated that high nutrient concentration in the crop root Zone can increase root proliferation and enhance crop yield. According to Akobundu (1987) farmers spend more money on controlling weeds than they do on any other pest. However, only 5.8% of the youths claimed to be involved in irrigation as a practice. This may be as a result of the fact that irrigation structures are costly and complex to operate. It could also be due to the planting of lowland rice cultivation which does not necessarily require irrigation.

**Table 2: Distribution of respondents by involvement in rice cultivation practices**

Cultivation practices	*Frequency	%
Land clearing	119	99.2
Burning	83	69.2
Ridging	104	86.7
Mounding	69	57.5
Transplanting	59	57.5
Parboiling	82	68.8
Nursery	49	40.8
Mulching	45	37.5
Viability test	68	57.5
Weeding	97	80.8
Fertilizer application	110	91.7
Irrigation	7	5.8
Control of pests/ birds	115	95.8
Tillering	37	30.8
Harvesting	117	97.5
Drying	110	91.7
Toughening	63	52.5

\*Multiple responses

Source: Field Survey, 2019

#### Constraints faced by youth in rice cultivation

Table 3 shows that processing (97.5%), poor storage facilities (90.0%), birds' infestation (85.0%), high cost of production (77.5%) and high poll tax after harvesting (62.5%) were the constraints being faced by the respondents in the study area. The poor storage facilities would have

been reducing the quality of the produce and thereby reduce the income of the farmers. This is in line with Ewuim, Nzegwu and Anaso (1998) that arable crop farmers who could not afford to get their products to the market due to poor transportation and storage facilities were forced to sell them at very low prices to middle men, who

eventually made more money than arable farmers. Also, birds' infestation as a constraint is in line with Global Rice Science Partnership (GRISP)

(2018) who identified birds as the second most important biotic constraint in African rice production.

**Table 3: Distribution of respondents by constraints faced in rice cultivation**

Constraints	*Yes	*No
People don't eat local rice	66 (55.0)	53 (44.2)
Birds infestation	103 (85.0)	16 (13.3)
Poor marketing of rice	46 (38.3)	74 (61.7)
Problem of processing	117 (97.5)	3 (2.5)
Inadequate machine for processing	114 (95.0)	6 (5.0)
Poor storage facilities	108 (90.0)	12 (10.0)
High Cost of production	104 (77.5)	16 (13.3)
Cultivation practices involved are many	93 (77.5)	27 (22.5)
Inadequate information on rice production	28 (23.3)	92 (76.7)
High poll-tax after harvesting	75 (62.5)	94 (36.7)

Figure in parentheses are percentages;

\*Multiple responses

Source: Field Survey (2019)

The findings in Table 4 revealed that there were significant relationship between age ( $p=0.0021$ ), income ( $p=0.084$ ), farm size ( $p=0.050$ ) and youth involvement in rice cultivation. It was further shown in Table 5 that there were no significant relationship between marital status ( $p=0.084$ ), religion ( $p=0.242$ ) and youth

involvement in rice cultivation. This is contrary to the opinion of Ani (2004) who reported that marriage was a determinant of a man's acceptability in his community and that until then the man had the right to be fed by his mother. Due to the significance of the variables, the null hypothesis is rejected.

**Table 4: Summary of Pearson correlation analysis showing relationship between socio economic characteristics and youth involvement in rice production**

Socioeconomic characteristics	r-value	p-value	Remark
Age	0.220	0.021	S
Income	0.084	0.046	S
Farm size	0.067	0.050	S

Source; Field Survey (2019)

**Table 5: Chi-square analysis showing relationship between some selected socioeconomic characteristics and youth contribution to rice cultivation**

Variable	$\chi^2$ -value	DF	p-value	Remark
Sex	41.58	1	0.005	S
Marital status	2.987	2	0.084	NS
Religion	2.84	2	0.242	NS
Cosmopolitaness	43.51	2	0.48	S

Source; Field Survey (2019)

The results in Table 6 show that there were significant relationship between ridging ( $p=0.000$ ), weeding ( $p=0.036$ ), fertilizer application ( $p=0.000$ ), viability test ( $p=0.024$ ) and their involvement in rice cultivation. This implies that ridging, fertilizer application, viability test and weeding are important cultivation practices in rice production. Due to the significance of ridging, weeding,

fertilizer application and viability test, the null hypothesis was rejected. This is in line with Onieh et al (no date) that deficiency of nutrients needs to be corrected because it could limit plant growth and depress yield and also weeding should be done twice to minimize the effect of weeds on panicle initiation.

**Table 6: Chi-square analysis showing relationship between cultivation practices and youth involvement in rice production**

Cultivation practices	$\chi^2$ -value	DF	p-value	Decision
Land clearing	2.773	1	0.096	NS
Burning	0.605	1	0.437	NS
Ridging	32.096	1	0.000	S

Cultivation practices	$\chi^2$ -value	DF	p-value	Decision
Mounding	5.592	1	0.018	S
Transplanting	24.930	1	0.000	S
Parboiling	24.657	1	0.005	S
Nursery	2.947	1	0.086	S
Mulching	9.139	1	0.003	NS
Viability test	5.130	1	0.024	S
Weeding	4.377	1	0.036	S
Fertilizer	17.072	1	0.000	S

Source: Field Survey, 2019

### CONCLUSION AND RECOMMENDATIONS

The findings established that land clearing, ridging, control of pest/birds, harvesting, drying, storage facilities and weeding were the rice cultivation practices in which youths were mainly involved while a few of them were involved in irrigation practices in the study area. Also, storage facilities, birds' attack, poor marketing and high cost of production were the constraints confronting rice cultivation in the study area. It was recommended that, government should put up a policy that will encourage youths to embrace rice cultivation as they progress in age. Youth farmers should form cooperative groups, so as to pool fund together and construct storage facilities in the study area.

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