



CHALLENGES FACED BY USAID MARKETS II RICE FARMERS IN NIGER STATE, NIGERIA

¹Yusuf, A. A., ¹Nnaji, J. O., ¹Abdulshakur, M. M. and ²Ibrahim, S.

¹National Agricultural Extension Research and Liaison Services (NAERLS),
Ahmadu Bello University, Zaria, Nigeria

²Department of Agricultural Technology, Kaduna Polytechnic Kaduna, Nigeria

Corresponding Author's E-mail: yusufadeizaabdulazeed@gmail.com

Tel.: +2347064308336

ABSTRACT

The study analyzed the challenges faced by USAID market II rice farmers in Niger State, Nigeria. Multi-stage sampling procedure was used to select respondents for the study. A total of 247 respondents made up of 130 participants and 117 non-participants were randomly selected from two participating Local Government Area of Niger State, Katcha and Lapai. The respondents were interviewed with the aid of structured questionnaire. Analytical tools used were descriptive. The result shows that the average age for participant and non-participant farmers were 43 and 41 years, respectively, which indicate that, respondents were in their most productive ages. The results also revealed that male farmers are more involved in the agricultural programme especially in the study area than females. Majority (96.90%) of participant farmers and 92.31% of non-participant farmers were married while few of them were single. The study further revealed that 55.38% of the participant farmers and 61.54% of the non-participant farmers had household size within the range of 1 – 10 person. The participant farmers were more educated with over 55% of respondent's being literate, while about 42% of non-participant farmers had acquired one form of education or the other; 68% participant farmers had farming experience of between 1-10 years with average contact with extension workers of three times for the farmers that participated in the USAID/MARKETS II programme and once for non-participant farmers, all participating farmers in the intervention were members of a cooperative association with few non-participant farmers in the cooperatives. The maximum farm size observed was found to be 4 hectares for both categories of rice farmers. The major constraints identified were high cost of inputs, inadequate capital, access to market and pest and diseases. It was concluded that participating in USAID/MARKETS intervention had broadened the knowledge base of the participants through advisory services of the programme, its enhanced the output, increased the income and living conditions of the participants more than that of the non-participants in the study area. The study recommends that intervening agencies on agriculture should ensure that strong institutional linkages and facilitation created among farmers, input suppliers, credit institutions and market for effective service delivery.

Keywords: Challenges, Farmers, Rice, USAID-Market.

INTRODUCTION

In Nigeria, rice is important, not only as food crops but even more as a major source of income for rural households; rice production in Nigeria is mainly in the hands of small-scale farmers who are using unimproved farming techniques. Being poor in capital resources, most rice farmers have only low access to production inputs and improved credit facilities for their purchase (Food and Agriculture Organization Statistics [FAOSTAT], 2011). More than 90% of Nigeria's rice is produced by resourced-poor farmers, while the remaining 10% is produced



by corporate/commercial farmers. About 95% of the processors of rice are also small scale with low capacity and obsolete mills (Abdulrahman *et al.* 2016).

The USAID/MARKETS programme allows farmer to have access to an array of agricultural services which they would otherwise not have access to. By reducing risk, uncertainty, transaction costs and more importantly ready market for their output, they have the potential to link farmers to markets and stimulate agricultural production in the face of globalization (United State Agency for International Development [USAID], 2013).

Markets and improved market access are critical and important to rural poor households as apre-requisite for enhancing agriculture based economic growth by improving the competitiveness of farming enterprise and improving rural incomes. Despite these, participation of smallholder farmers in rice market-oriented settings remains low due to a range of constraints faced by the USAID-MARKETS rice farmers in the study area (Ohen *et al.*, 2013). The specific objectives of the study were to:

- i. describe the socio-economic characteristics of participating and non- participating small-scale rice farmers under the USAID/MARKETS II programme; and
- ii. describe constraints faced by small scale rice farmers participating in the programme

MATERIALS AND METHODS

The Study Area

This study was conducted in Niger State, in the North Central Zone of Nigeria, lies in between latitude 8° to $11^{\circ} 30^1$ North and Longitude 03° to $7^{\circ} 40^1$ East. It occupies a land area of approximately 76, 469.903 square kilometers or about 10% of Nigeria's land mass. The State has an estimated population of 3,950249 and gives the State a population density of about 33 per square kilometer, the lowest in the country.

Sampling Techniques

A multi-stage sampling procedure was used to select respondents for the study. The first stage involved a purposive selection of two (2) Local Government Areas (LGAs) namely Katcha and Lapai based on predominance of rice production in the study area. Secondly, six (6) out of a total of 24 villages were randomly selected, three (3) from Katcha (Baddegi, Gbakogi and Kataregi) out of 11 villages and three (3) from Lapai (Gbage, Lambata and Muye). Finally, a proportionate random sampling was employed to select a sample size of 247 (Table 1) for both participant and non-participant rice farmers. Primary data were collected for both participant and non-participants in USAID/MARKETS II intervention programme using structured questionnaire. Data collected were analyzed using descriptive statistics.

Table 1: Sampling Frame and Size Selection Plan of the Study

LGAs	Villages	Sample frame	Sample size
Katcha	Badeggi	50	50
	Gbakogi	50	45
	Kataregi	50	37
Lapai	Gbage	50	42
	Lambata	50	33
	Muye	50	40
Total		300	247



Method of Data Collection

Primary data were collected for both participant and non-participants in USAID/MARKETS II intervention programme using a well-structured questionnaire.

Analytical Techniques

Data collected were analyzed using descriptive statistics such as frequency, percentages and rankings.

RESULTS AND DISCUSSION

Socio-economic Characteristics of the Respondents

The socio-economic variables included for the analysis are quantitative variables: age (years), household size (numbers), farming experience in rice cultivation (years), farm size (hectares) and qualitative variables such as: marital status, educational status, membership of farmers association among others.

The result in Table 2 revealed that average age of farmers was 43 years with over 81% within the range of 30-60 years for both group of farmers. This implies that most of the farmers were in their productive age and therefore can participate actively in various agricultural production activities. This finding is consistent with that of Opoku (2012), who reported that most active farmers' age group that engage in production activities were within 30-60 years which implies that rice production and participation in farming arrangement holds prospect in the area. Average household sizes were 10 persons per household for participant and 9 persons per household for non-participant farmers. It is expected that farmers with larger family are more likely to join the USAID/MARKETS II schemes because of the labor-intensive nature of the commodity selected, family size is expected to have a positive influence on participation. Average contact of extension visit was three times for participant and most a time once for non-participant farmers.

According to Obwona (2000), extension service is very essential to the improvement of farm productivity and efficiency among the farmers. Average farming experience for both categories of farmers was 10 years. This is in line with the finding of Opoku (2012) who revealed that the length of a farmer's experience can either generate or erode confidence of rice farmers. The maximum farm size was found to be 4 hectares for both group of farmers. The implication of this result is that the respondents are predominantly small-scale farmers. Small farm size is an impediment to agricultural mechanization because using farm machineries like tractors for farm operation will be underutilized and excessively expensive (Opoku, 2012).

Majority of farmers were married while very few were single which implies that there will be available labour supply for the rice farmers in the study area, and Literacy among the participant farmers is relatively higher and this is in line with Amaza *et al.* (2009) who observed that education has a positive and significant impact on farmer's efficiency and productivity. Farmers that participated in the USAID intervention programme were members of cooperative society. Ekong (2003) observed that membership of cooperative societies confers advantages of accessibility to micro-credit, input subsidy as well as outlets of output of members and information among members.



Table 2: Socio-economic Characteristics of Participating and Non-Participating Small Scale Rice Farmers under the USAID/MARKETS II Programme

Variables	Participant (n = 130)	Non-participant (n = 117)
Age (Years)		
20-29	25 (19.3)	8 (6.8)
30-39	21 (16.2)	29 (24.8)
40-49	40 (30.8)	34 (29.1)
50-59	22 (16.9)	30 (25.6)
60-69	22 (16.9)	16 (13.7)
Total	130 (100)	117 (100)
Min	24	20
Max	69	65
Mean	43	44
SE	1.2	1.0
Household size (Number)		
1-5	37 (28.5)	29 (24.8)
6-10	35 (26.9)	43 (36.8)
11-15	24 (18.5)	15 (12.8)
16-20	17 (13.1)	13 (10.0)
Total	130 (100)	117 (100)
Min	2.0	1.0
Max	20	20
Mean	10.0	9.0
SE	0.7	0.8
Farming experience (Years)		
1-10	88 (67.7)	54 (46.2)
11-20	30 (23.1)	47 (40.2)
21-30	4 (3.1)	12 (10.3)
31-40	6 (4.6)	4 (3.4)
41-50	2 (1.5)	0 (0)
Total	130 (100)	117 (100)
Min	5.0	4.0
Max	50	40
Mean	10	10
SE	1.0	1.0
Extension visit (Number)		
0-3	65 (50)	90 (78)
4-6	65 (50)	27 (22)
Total	130 (100)	117 (100)
Min	2	0
Max	5	2
Mean	3	1
SE	0.07	0.1

Note: Figures in parentheses are percentages

Source: Field survey (2018)



Table 2: Farmers' Marital Status, Education and Cooperative Societies Membership Cont'd.

Variables	Participant-farmers (n = 130)		Non-Participant-farmers (n = 117)	
	Frequency	Percentage	Frequency	Percentage
Farm size (ha)				
<1	2 (1.5)	5 (4.3)		
1.0-1.9	65 (50.0)	39 (33.1)		
2.0-2.9	40 (30.8)	28 (23.9)		
3.0-3.9	21 (16.2)	37 (31.6)		
4.0-4.9	2 (1.5)	8 (6.8)		
Total	130 (100)	117 (100)		
Min	0.5	1		
Max	4.0	4.5		
Mean	2.5	2.1		
SE	0.07	0.1		
Marital status				
Single	4	3.10	9	7.69
Married	126	96.90	108	92.31
Total	130	100	117	100
Education level				
Primary Education	29	22.3	33	28.2
Secondary Education	25	19.2	16	13.7
Tertiary Education	18	13.9	0	0.0
Quranic	58	44.6	68	57.1
Total	130	100	117	100
Membership of cooperatives				
Accessed	130	100	16	13.68
No Access	0	0	101	86.32
Total	130	100	117	100

Note: Figures in parentheses are percentages

Source: Field survey (2018)

Constraints Faced by Rice Farmers

The constraint faced by USAID/MARKET II participant farmers in the study area were ranked according to their magnitude as presented in Table 3. High cost of inputs ranked first with 61.5% of the respondents indicating it as their major constraint. They asserted that the input is not available at the right time, and government subsidy is being diverted to unintended beneficiaries. According to the respondents, inputs like fertilizer, agrochemical and seeds were made available when farmers are far into the production period, sometimes at the middle of the rainy season. This finding is in line with Ekong (2003), who opined that most farmers have little or no access to inputs like, improved seed, fertilizer and continues to recycle seeds that have become exhausted after generations of cultivation.

About 45.4% of the respondents indicated inadequate capital to finance agricultural activities as a problems and this ranked second. This affect rice production in the study area as the new method introduced by USAID/MARKETS II is labour intensive, demanding more cash to pay for labour and buy inputs. The farmers complained that even when they desire to allocate more land to rice production, they are cash trapped, because their meager savings from off farm activities cannot meet their needs during the farming season.

Other constraints as indicated by 21% of the farmers include high cost of transportation, Pest and diseases and high cost of labour during the peak of the land clearing, ridging and



weeding. These constraint as claimed, lead to labour shortage especially at the peak of farming activities. However it was observed that the non-participant farmers are faced with inadequate access to inputs, access to market and other logistic problem.

Table 3: Constraints Faced by Participant Farmers in the Project

Constraints	*Frequency	Percentages	Ranking
Participant farmers			
High cost of Inputs	80	61.5	1st
Inadequate Capital	59	45.4	2nd
High cost of labour	34	26.2	3rd
Others (Pest and Diseases)	28	21.5	4th
Non-Participant farmers			
Inadequate access to inputs	62	40.1	1st
Access to markets	46	33.4	2nd
Others	31	25.2	3rd

*Multiple responses exists

CONCLUSION AND RECOMMENDATIONS

Based on the findings, it can be concluded that participating in USAID/MARKETS intervention had broadened the knowledge base of the participants through advisory services of the programme, its enhanced the output, increased the income and living conditions of the participants more than that of the non-participants in the study area. The results emanating from this study will assist in future programme designs and evaluation. Hence, the programme is sustained and replication of the programme should be maintain in other state where rice is produced. In light of the findings of the study, the following recommendations were made:

1. Rice farmers in the study area should be encouraged by extension agents to take advantage of such intervention programmes to increase their productivity through better access to inputs and linkages to markets which would increase their income for better improvement in their living standard or escape for poverty.
2. The study had identified some constraints such as inadequate capital, limited access to market and high cost of inputs that may affect the sustainability of the programme. It was recommended that intervening agencies on agriculture should ensure that strong institutional linkages and facilitation are created among farmers, input suppliers, credit institutions and market for effective service delivery.

REFERENCES

- Abdulrahman, S., Gomina, A., Abdullahi, M. M., Saddiq, N. M., Magaji, B. D. (2016). Assessment of Factors affecting Quantity of Rice Supplied to Output Market Outlets in Kano State: Market supply model approach. *Dutse Journal of Economics and Development Studies*, 1(1): 21-27.
- Amaza, P., Tahirou, A., Patrick, K. and Amare, T. (2009). Changes in household food security and poverty status in PROSAB area of Southern Borno State, Nigeria. Promoting Sustainable Agriculture in Borno State (PROSAB). *International Institute of Tropical Agriculture*, 40 pp.
- Ekong, E. E. (2003). *Rural Sociology: An Introduction and Analysis of Rural Nigeria*. Uyo: Dove Educational Publication.



- Obwona, M. (2000). *Determinant of technical efficiency among small and medium scale farmers in Uganda: A case of tobacco growers*. Final Report at the AERC Biannual Research Workshop, Nairobi, Kenya.
- Ohen, S. B., Etuk, E. A. and Onoja, J. A. (2013). Analysis of Market Participation by Rice Farmers in Southern Nigeria. *Journal of Economics and Sustainable Development*, 4 (7), 2222-2855
- Opoku, S. M. (2012). Logistic Analysis of Factors Motivating Smallholder Farmers to Engage in Contract Farming, Institute of Entrepreneurship and Enterprise Development, (Agro-preneurship Dept) Kumasi Polytechnic. *Journal of Biology, Agriculture and Healthcare*, 2(11): 58-73.
- USAID/MARKETS (2008). Making Agribusiness Work for Nigerian Farmers. *Newsletter*, 4: 1-8. United State Agency for International Development Maximizing Agricultural Revenues and Key Enterprises in Targeted Sites (USAID / MARKETS).
- USAID (2013). *Foreign Agricultural Service*. GAIN Report (Global Agriculture Information Network), Nigeria Grain and Feed Annual Report.