



## INFLUENCE OF IFAD RICE VCDP ON ACCESS TO MARKET AMONG RICE FARMERS IN SOUTHEAST NIGERIA

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### ABSTRACT

This study examined the influence of IFAD rice VCDP on access to market among rice farmers in Southeast, Nigeria. A multi-staged sampling technique was deployed to 318 respondents from the study area. Data were collected using structured questionnaires. The data were subjected to both descriptive (mean and percentages) and inferential (t-test) statistics. The results showed that the mean age of the respondents was  $43.11 \pm 8.32$  years and majority (81.4%) were within the age range of <31-50 years, almost two-thirds (61.9%) were male and majority (86.70%) were literate at different levels. Also it showed that the mean total farm income was  $1490455.97 \pm 1250913.3$  and almost half (46.6%) of the respondents had <1,000,000 as their total farm income, with a mean farm experience of  $2.08 \pm 0.29$  years. In the same vein, majority (87.2%) of the respondents cultivated the raining season rice, with the mean average rice yields of  $4843.40 \pm 969.60$ , and more than half (56%) had average rice yield of 4-5 tonnes/ha and majority (57.1%) employed hired labour. Furthermore, majority (85.0%) of the respondents had a low level of benefit derived from rice farming prior to the intervention but as a result of the intervention, 77.2% of the respondents had high level of benefit derived with a mean of  $20.90 \pm 1.72$ . In the same vein, before the intervention, majority (78.6%) of the respondents had low access to market, however, as a result of the intervention, most (90.8%) had high access to market with a mean of  $6.35 \pm 4.61$ . And finally, it was shown that there was a significant difference in farmers' access to market before ( $1.9 \pm 1.0$ ) and after ( $10.8 \pm 1.3$ ) IFAD rice VCDP intervention in the study area  $p \leq 0.05$ . The study concludes that IFAD rice value chain development programme has significantly influenced market access among beneficiaries in the study area. The study recommends that this programme be sustainable, so that these benefits derived by the beneficiaries will never be short-leaved. The study also recommends that a functional off-takers be made available to the farmers to ensure a sustainable access to market.

**Keywords:** IFAD, Rice, VCDP, Farmers, Access, Market

### INTRODUCTION

Rice is a rich and cheap source of carbohydrate to both human and animals and it serves as a major staple crop in Nigeria and across the globe and it also generates more revenue (income) for Nigerian farmers than any other cash crop in the country (Alabi *et al.*, 2023). However, there has been a huge demand supply gap of rice in Nigeria that the federal Government makes up for via importation. Even though rice is produced in all the agricultural zones of the country, the quality of rice produced have mostly fallen below the international standard, this is because rice farmers, processors and marketers alike are faced with several challenges in their various nodes that affects the quality of the end produce. Owoade *et al.* (2023) stated that one of the main challenges in getting local rice accepted and consumed by Nigerians has been its quality. Furthermore, Onyeneke (2017) stated that some constraints to rice production in Nigeria include, the use of crude implements, flood and unavailability and accessibility to efficient rice inputs. This buttresses the opinion of Alabi *et al.* (2024) who stated that Nigeria has a conducive market for rice production because of the high demand supply gap since rice constitutes a staple food among her citizens. The authors further stated that however, due to the low grade of locally cultivated rice, most consumers prefer the imported rice from Thailand, Bangkok, and China.



In the same vein, rice marketing is constrained by sub-standard quality of rice produced due to the constraints encountered by both producers and processors alike as well as poor market linkage and poor government policies. Abba *et al* (2015) stated that rice marketing encompasses all activities that are involved in moving rice from point of production till it gets to the final consumer in a desired form and in an appropriate condition. It therefore means that rice marketing ought to be encompassive, by making provisions for all support services needed across the rice value chain nodes from production till it gets to the final consumer in the best condition possible (Alabi, *et al* 2024). In view of the above, The International Fund for Agricultural Development (IFAD) in collaboration with the Nigerian Government, came put up a five years (2015-2020) rice value chain development programme to assist all the stakeholders, especially the poor smallholder rice farmers to enhance production and productivity, increase market access, reduce poverty, facilitate capacity building, as well as close up the rice demand-supply gap, thereby drastically reducing the nations rice importation. This programme was specifically designed to enhance the value chains of rice for peasant farmers across six Nigerian states: Anambra, Benue, Ogun, Niger, Ebonyi and Taraba (IFAD, 2017). However, due to the success of the first phase, the second phase had started in 2021 and it's currently ongoing, with more states and farmers being absolved. One of the three components of this programme was the expansion of Agricultural marketing through provision of contributions to enhancement of values and market interconnections among the smallholder rice farmers and the medium-scale processors, as well as support to demand-driven market infrastructure to be maintained by the rural community (IFAD, 2012). This programme first phase was in operation from 2015-2020, providing market interconnectivity between rice farmers and processors (off-takers) as well as supporting them with a matching grant funds at 90% discount for market infrastructure such as roads, market stores and aggregator centers. However, it's not clear if these have brought a remarkable change in their market access. This study therefore seeks to ascertain the influence of IFAD rice VCDP on access to market among rice farmers in the study area. The objectives of the study were to:

- i. describe the personal characteristics of the respondents in the study area;
- ii. ascertain the enterprise characteristics of the respondents;
- iii. examine the benefits derived by the beneficiaries of IFAD rice VCDP; and
- iv. ascertain the influence of IFAD rice VCDP on the market access of the respondents in the study area

## **METHODOLOGY**

### **Study Area**

The research was done in Southeast zone of Nigeria. The zone is made up of Ebonyi, Enugu, Abia, Imo and Anambra states. The Southeast zone of Nigeria is situated in the tropical rain forest of Nigeria. The region spans across latitudes 4° 47' 35"N and 7° 7' 44"N. It has a total land mass of roughly 78,612km<sup>2</sup> with a mean maximum temperature of 27° C. It has annual rainfall of 2500mm (Olumba, et al, 2023). The zone occupies a total land mass of 10,952,400 hectares with a population of 16,381,729 people (National Population Council, 2006). They majorly farm crops such as rice, yam, cassava and vegetables.

### **Sampling Technique and Sample Size**

This study employed a multi-staged sampling technique. Firstly, was the purposive selection of two states in the east; Anambra and Ebonyi, since they were the only selected states in the first phase of the intervention. Secondly was a purposive selection of 50% of each of the five (5) Local Government areas engaged in the programme from both states and hence six (6) LGAs from both states. Thirdly was a simple random selection of 50% of the clusters available in the selected three (3) local government areas from both states each, summing up to 14 and 13 clusters for Ebonyi and Anambra States, respectively. And lastly was a simple random selection of 5% of all farmers from each cluster, summing up to 207 and 150 each for Ebonyi and Anambra and a sum total of 357 respondents for the study.



### Data Collection and Analysis

The data were collected using structured questionnaire and analysed using both descriptive (frequency tables and percentages) and inferential statistics (T-test).

## RESULTS AND DISCUSSION

### Personal Characteristics of the Farmers Involved in IFAD Rice VCDP

Table 1 revealed that the mean age of respondents was  $43.11 \pm 8.32$  years and majority (81.4%) were within the age range of <31-50 years, almost two-thirds (61.9%) were males, majority (85.5%) were married and literate (86.70%) at different levels. This showed that they were in their active years though more males were captured for the intervention and this could be because rice farming is labour intensive. This corroborates the findings of Olawale *et al* (2020) in the western part of Nigeria, where the mean age of the IFAD VCDP farmers was 44.3 years. This also aligns with the study of Akintunde, *et al.* (2023) who found in their studies in western Nigeria that more than two-third (70.3%) of the farmers in IFAD rice VCDP were male. Furthermore, they were fairly educated and this could mean that they would be more receptive to the technologies given by the programme. This aligns with the findings of Okafor, *et al.* (2023), who discovered in their studies that 100% of rice farmers in Anambra state were literate. They proposed that farmers with this educational background would be more receptive to information from extension agents and other sources about adopting best practices to increase crop yield.

**Table 1: Distribution of Beneficiaries According to their Personal Characteristics (n=318)**

Personal Characteristics	Total no. of Variables (n=318)	
	Freq.	%
<b>Age</b>		
<31	29	9.10
31-40	99	31.10
41-50	131	41.20
51-60	52	16.40
>60	7	2.20
<b>Mean</b>		43.11±8.32
<b>Sex</b>		
Male	197	61.90
Female	121	38.10
<b>Marital Status</b>		
Single	26	8.20
Married	272	85.50
Divorced	5	1.61
Widowed	15	4.70
<b>Educational Status</b>		
No Formal Education	44	13.30
Primary	87	26.70
Secondary	129	41.00
NCE/Diploma	34	11.00
BSC/HND	24	8.00
Post Graduate	0	0.00

**Source:** Field survey, 2025



### Enterprise Characteristics of the Respondents in IFAD Rice VCDP

It was shown in table 2 that the mean of total farm income was  $1490455.97 \pm 1250913.3$  and almost half of the respondents (46.6%) had  $<1,000,000$  as their total farm income, with a mean farm experience of  $2.08 \pm 0.29$  years. Majority (87.2%) of the respondents cultivated the raining season rice with a mean average yields of  $4843.40 \pm 969.60$ , and more than half (56%) had average rice yield of 4-5tonnes/ha and majority (57.1%) employed hired labour. This implies that these respondents had high total farm income and this could be due to the grants given on inputs and market infrastructure which may have reduced their cost of production and increased their profit, and it could be due to the access to market they had, which would likely lead to more profits. This partially agrees with the findings of Olawale *et al* (2020) in the West where 54.9% had an annual income of ₦410,000 to ₦800,000 from IFAD Rice VCDP. It also aligns with the study of Orjime *et al.* (2023), who stated that about 99.7% of the rice farmers had an increase in their rice output as a result of the grants given by the intervention which must have dovetailed to their increase in farm size among others. Furthermore, their high average rice yield could be due to their adoption of the improve rice technologies and Good Agricultural Practices (GAPs) exposed to by the intervention. The adoption of these given technologies could have also been propelled by their fairly high level of literacy as seen in Table 1. Formal education exerts a beneficial impact on the experimentation and integration of diverse innovations Okafor, *et al.* (2023).

**Table 2:** Distribution of Beneficiaries According to Enterprise Characteristics in IFAD Rice VCDP (n=318)

Enterprise Characteristics	Overall Variables (n=318)	
	F	%
<b>Total Farm Income</b>		
<1,000,000	165	46.6
1,000,000-2,000,999	116	40.3
3,000,000-4,000,999	30	10.7
5000,000-6,000,999	5	1.8
7,000,000 and above	2	0.7
Mean		1490455.97±1250913.3
<b>Farm Experience in Rice IFAD</b>		
1	0	0
2	318	100
Mean		2.08±0.29
<b>Average rice yield</b>		
<4000	63	19.8
4000-5999	178	56
6000 and above	77	24.2
Mean		
<b>Rice Season Cultivated</b>		
Rainy	280	87.2
Dry	38	12.8
<b>Source of labour</b>		
Self	224	70.4
Family	146	45.9
Friends	42	13.2
Hired	312	98.1
Association	73	23
Communal	1	0.3

**Source:** Field survey, 2025



### Respondents' Level of Benefits before and after IFAD Rice VCDP

The results in Table 3 showed that majority (85.0%) of the respondents had a low level of benefit derived from rice farming prior to the intervention. This then buttresses the need for the intervention due to the numerous challenges encountered by the respondents. According to Buhari *et al.* (2024), farmers faced challenges with input delivery, have been delays or non-delivery, the distribution of counterfeit inputs, and the exclusion of rightful beneficiaries from agricultural programme implementation. However, after the intervention, 77.2% of the respondents had high level of benefit derived with a mean of  $20.90 \pm 1.72$ . This showed that the programme had positive impacts on the rice farmer's yield and income as seen in table 2, this validates the assertion of Orjime *et al.*, (2023), that there was a 15.5% reduction in the number of farmers who produced less than 10 bags before IFAD rice intervention and a 6.1% rise in the number of farmers that produced 100 bags and above after the intervention. Their high benefits could also be due to their fairly high level of education and hence their adoption of the innovations and rice technologies given. This corresponds with the findings of Akintunde *et al.* (2023) who found that an increase in the level of educational qualification corresponds to a higher adoption rate of Good Agricultural Practices (GAPs).

**Table 3:** Distribution of respondents based on their level of benefits before and after rice IFAD VCDP

Level of benefits derived		Overall (n=318)			
		F	%	Min	Max
Before	Low (2.00-6.58)	271	85.0	2.0	18.0
IFAD	High (6.59-18.00)	47	15.0		
After	Low (13.00-20.89)	73	21.7	13	26
IFAD	High (20.90-26.00)	245	77.2		

**Source:** Field survey, 2025

### Level of Market Access before and after the IFAD Rice VCDP

The results in Table 4 showed that before the intervention, majority (78.6%) of the respondents had low access to market with a mean of  $6.35 \pm 4.61$ . This could be due to lack of standby off-takers, inactive processing co-operatives and poor infrastructure which would have affected their rice production negatively as observed from their low benefit prior to the intervention in table 3. This was buttressed by USDA (2021), stating that one major reason behind the huge rice importation by Nigeria was due to the preference of foreign rice to local rice, with consumers complaining of the poor standard of the later. This could be due to the low level of processing technologies by the processors.

Nevertheless, Table 4 still showed that as a result of the intervention, majority (90.8%) had high access to market with a mean of  $6.35 \pm 4.61$ . The higher level of access to market could be due to the use of improved seeds (Faro 44 and 56) among other inputs with higher yield recorded and better quality when processed. This tends to attract more local market demand even without steady access to off-takers. This partially aligns with the findings of Orjime *et al.* (2023), who stated that before the IFAD intervention, no processor could process 100 metric tons of rice annually, but as a result of the intervention, about 11.5% processed more than 100 metric tons of rice annually in Benue State. The authors further added that that IFAD rice value chain has greatly increased the rice output and market access of rice farmers and also has brought about a remarkable increase in employment across the various nodes of the value chain.





**Table 4:** Distribution of Respondents according to Level of Access to Market before and after IFAD rice VCDP

Level of market access		Overall (n=318)				
		F	%	Min	Max	Mean
Before	Low (0.00-6.34)	250	78.6	0.00	14.00	6.35±4.61
IFAD	High (6.35-14.00)	68	21.4			
After	Low (0.00-6.34)	29	9.3	0.00	14.00	6.35±4.61
IFAD	High (6.35-14.00)	289	90.8			

**Source:** Field survey, 2025

Table 5 shows that there is a significant difference in farmers' access to market before ( $1.9\pm1.0$ ) and after ( $10.8\pm1.3$ ) IFAD rice VCDP intervention in the study area. This indicates that beneficiaries of IFAD rice VCDP had more access to market after the intervention. This could be because they had a positive change in their yield during and after the intervention, which they attributed mainly to the improved rice seeds planted (FARO 44 and 56) and the GAPs taught by the extension agents in the programme. This corroborates the assertion of Anyanwu *et al.* (2023) who stated that a programme's positive impacts are indicated by a notable increase in the beneficiaries' income level and market access. Likewise, Orjime *et al.* (2023) opined that through the capacity building and empowerment of farmers' groups facilitated by VCDPs, farmers can consistently and sufficiently access markets

**Table 5:** Test of difference in the market access of beneficiaries before and after the IFAD rice VCDP

Difference in access to market	Mean	SE	T	df	p	Decision
Access to market before	$1.9\pm1.0$	0.06	105.6	317	0.000	Significant
Access to market after	$10.8\pm1.3$	0.07				

**Source:** Field survey, 2025

## CONCLUSION AND RECOMMENDATION

The study concluded that the IFAD RVCD programme has significantly influenced market access of the respondents in the study area with majority having high income and yield as a result of the intervention while they majorly cultivated rainy season rice. Furthermore, it was observed that majority had high level of benefits from their rice enterprise and access to market as a result of the intervention than prior to it. The study recommends that this programme should be sustainable, so that these benefits derived by the beneficiaries will never be short-leaved. The study also recommends that a functional off-takers be made available to the farmers to ensure a sustainable access to market.

## REFERENCES

- Alabi, O.O., Sunday, G. A., Ebukiba, E. S. and Aluwong, J. S. (2023). Economic Impact of Value Chain Development Programme on Food Security of Rice Farmers in Nigeria. *Food & Agribusiness Management*, **4**(2): 96-99.
- Ajala, A. S and Gana, A. (2015). Analysis of challenges facing rice processing in Nigeria. *Journal of Food Processing*. **5**(1): 100-105. Retrieved from <https://www.script.org> on 4<sup>th</sup> march, 2025
- Abbah, D. A., Anjeinu, A. G., and Iorhron, A. P. (2015). Analysis of the structure and conduct of paddy rice marketing in Benue State, Nigeria. *American Journal of Marketing Research*, **1**(2):70-78.
- Alabi, O. O., Samuel, J. E., Samson, A. O., Philip, P. O., and Joseph, D. B. (2024). Profit Efficiency of Paddy Rice Marketing in Kaduna State, Nigeria: Implications for Food Security and Poverty Alleviation. *Journal of Research in Agricultural Sciences*, **55**: 66-70.



- Akintunde, A. A, Taibat, A. Y., and Oluseyi, A. A. (2023). Socio-economic drivers of smallholder rice farmers' participation in IFAD value chain development programmes in Nigeria. *Kardan Journal of Economic and Management Science*. **6**(2):91-101.
- Anyanwu, I. B, Ojo, M. A, Nmadu, J. N, Adebayo, C. O. (2023). Resource productivity of rice farmers under the agricultural transformation agenda (ATA) programme in Niger State, Nigeria. *Journal of Agriculture and Agricultural Technology (JAAT)*. **12** (1): 35-53.
- Buhari, A. K., Muhammad, H. A., Garba, N., and Umar, S. (2024). Risk identification in rice production performance in Kebbi State, Nigeria. *International Journal of Innovative Agriculture and Biology Research*, **12**(1): 2354- 2934.
- National population commission, (2006). Nigerian Agricultural Magazine, P.140
- Oruonye, E.D., Danladi, T. E., Monday, J. and Ukechi, M. (2021). The Impact of IFAD-Value Chain Development Programmeto Rice Yield and Income Among Smallholder Farmers in Ardo-Kola LGA, Taraba State, Nigeria. *Journal of Agricultural Science and Food Technology*. **7**(4): 66-74.
- Oyeneke R. U, (2017). Determinants of Adoption of Improved Technologies in Rice Production in Imo State, Nigeria. *African Journal of Agricultural Research* **12**(11): 886 – 896. Doi:10.5897/AJAR2016.11737.
- Okafor, E. O., Michael, C., Okafo, O. and Nwafor, G. (2023). Influence of International Fund for Agricultural Development (IFAD) on value chain activities of members of m cooperative societies in Awka North local government area of Anambra State, Nigeria. *International Journal of Research and Innovation in Social Science*. **7**: 35-40. DO-10.47772/IJRISS.2023.70807.
- Olawale, E.O., Ityokumbul, V.D, and Onigbinde, D. (2020). Effect of value chain development programme (VCDP) on income and food security of rice farmers in Yewa North and Ijebu North-East, Ogun State, Nigeria. Technical Report Jan. 2020.
- Orjime, S.M., Abaa, A. A., Shember, A. A. and Asombo, G. M. (2023). Impact of IFAD rice value chain development programme on rice output and unemployment reduction in Benue State, Nigeria. *International Journal of Research and Innovation in Social Science*, **8**(1): 2454-6186.
- Owoade, E. O., Umar, M. B., Abubakar, M., Abdulhakeem, A. L. and Lailai, I. Y. (2023). Effect of importation ban on rice production in Bade local government area of Yobe State, Nigeria. *Asian Research Journal of Agriculture*, **14**(3): 36-44.
- Olumba, C.C., Olumba, C.N., and Okpara, U. (2023). Household headship, resource ownership and food security: New evidence from Southeast Nigerian cities. *Journal of Scientific African*, **22**: 102-109.
- United State Department of Agriculture (USDA). (2021). Nigerian Rice Area, Yield and Production. Retrieved on 16<sup>th</sup> march, 2025 from <https://ipad.fas.usda.gov/countrysummary/Default.aspxid=NI&crop=Rice>