Impact of the World Bank-Assisted Commercial Agriculture Project on the Livelihood of Rice Farmers in Cross River North Senatorial District of Nigeria

Rosemary I. Eneji

Department of Sociology, University of Calabar, Calabar, Nigeria ORCID: https://orcid.org/0000-0002-4611-5992

Veronica E. Francis

Department of Sociology, University of Calabar, Calabar, Nigeria

Philip A. Egbara

Department of Social Work, University of Calabar, Calabar, Nigeria

Abstract

The study was carried out to determine the benefits or otherwise of the World Bank-assisted Commercial Agricultural Project on the livelihood of rice farmers in Northern Cross River State. The study population comprised 991 rice farmers of which 400 were sampled for standard auestionnaire administration and data collection, with 363 retrieved. The results showed that most of the rice farmers who benefited from the World Bank grant had an improved capacity in their farming. However, 158 (43.5%) respondents strongly agreed and 196 (54%) agreed that many rice farmers were not aware of the World Bank-assisted project. Concerning the supply of farm inputs, 196 respondents (54%) strongly agreed and 158 (43.5%) agreed that the project often distributed farm inputs to farmers and about 90% of them agreed that their rice farming generally benefit from the input supply, which included improved seeds, fertilizers and herbicides. We suggest that greater awareness through workshops should be frequently organized for the rice-farming communities on current and future World Bank or other donorsupported programmes to benefit more farmers. The existing agricultural extension services should also be utilized to disseminate information and provide guidance to the farmers. However, efforts should be made by the project management to screen out ghost beneficiaries and focus more on the real farmers who are the key contributors to food security in the state.

Keywords: World Bank, grant, rice farmers, Cross River, farm inputs.

Introduction

Agriculture is a crucial economic driver in many nations, especially in developing nations like Nigeria, where it serves as a primary source of livelihood for a significant portion of the population (Eneji and Attah, 2018). The World Bank (WB) has implemented commercial agricultural initiatives globally, including Nigeria, to boost economic growth and poverty reduction, focusing on staple crops like rice. The World Bank-assisted agricultural development programs in Nigeria are in the forms of foreign aid, including the Fadama project (Abah, 2001; Eneji and Akwaji, 2018). The Bank also supports training programs for farmers, helping them acquire new skills and knowledge. These initiatives often target not just individual farmers, but entire communities in ways that can lead to the development of cohesive farming communities that share resources, knowledge, and support systems, ultimately strengthening the overall agricultural sector (Fowowe, 2020). The WB often funds projects to improve rural infrastructure, such as irrigation systems, roads, and storage facilities. These infrastructure improvements can directly benefit farmers by increasing their access to water for irrigation and transportation networks for getting their produce to markets.

In Nigeria, the rice farming sub-sector stands out as one of the vital components of the country's agricultural landscape. Rice was ranked 6th in Nigeria in terms of production in relation to crops like sorghum, millet, cowpea, cassava, and yam (Singh, 2022). It is one of the most

consumed foods in Nigeria, thus boosting its production has been accorded high priority by the government and some international organizations like the World Bank (Adeola and Ikpesu, 2016). In Nigeria, the rice consumption rate increased by four percent of the global consumption growth, accounting for nearly 20% of Africa's consumption (World Bank Report, 2022). Rice has the potential to support Nigeria feed its growing population, generate employment and earn foreign exchange (Adams, 2018; Moses, 2012). The Nigerian rice sector has seen some remarkable developments because of the World Bank's intervention, as is the case with Cross River State. The WB interventions are in the areas of market links, grants, insecticides, herbicides, fertilizers, etc. Other supports help farmers connect with buyers, processors, and distributors, ensuring that their produce reaches the market at fair prices (Eyo et al., 2020).

In the context of Cross River State's rice farming sector, the World Bank commercial agricultural initiatives had potentials for catalyzing positive transformations. By leveraging its financial resources, technical expertise, and global networks, the Bank sought to address the underlying constraints hindering the growth and profitability of rice farming enterprises in Cross River State starting from the regime of Governor Liyel Imoke. The WB and other development partners have intervened to boost rice production to enhance the livelihoods of farmers in Cross River state. This study examined whether or not the World Bank agricultural initiatives did have the desired effects on the livelihood of rice farmers in Cross River State, with particular attention to Cross River North Senatorial district.

Methodology Area of study

The Northern Senatorial District of Cross River State currently comprises five local government areas (LGA) - Ogoja, Yala, Obudu, Bekwarra and Obanliku (Figure 1).

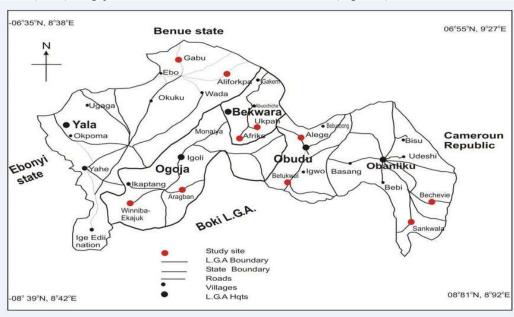


Figure 1. Map of Northern Senatorial District of Cross River State showing the constituent local government areas.

Source: Cross River Geographic Information Agency (2023).

The notable ethnic groups in the District by LGA are Ogoja (Mbube, Ishibori and Ekajuk, Yala (Yala, Ukelle, Yache and Igede), Obudu (Bette, Utugwang, Alege, Ukpe and Ubang), Bekwarra (Bekwarra, Afrike) and Obanliku (Bendi, Obanliku, Utanga and Becheve).

Population of the study and sampling

According to the National Agricultural Sample Survey (NASS, 2022), the population of rice farmers in Cross River North was nine hundred and ninety-one (991) farmers but the sample size used for this study was four hundred (400) of which 363 were retrieved. Simple random sampling was used to select forty rice farming communities across the LGAs, from which ten rice farmers were selected, with one respondent chosen from each household identified as rice farmers. Where an eligible respondent was not found, the next household was considered and selected. The selected respondents were administered structured questionnaires with four (4) points scales. The questionnaire was sectioned into three - A, B and C. Section "A" contained items on the respondent's personal bio data, including age, sex, marital status, educational level, etc. Section "B" was designed using the 4-point Likert scale of "SA" for strongly Agree, "A" for agree, "D" for disagree and "SD" for disagree. The questionnaire was reviewed by experts in test and measurement to ascertain its face and content validity prior to administration. Supplementary data were sourced from textbooks, journals and other library materials relevant to the study.

Data analysis

The data were processed and summarized using the Statistical Package for Social Sciences (SPSS) software, version 28.

Results and Discussion

The socio-demographic characteristics of respondents are shown in Table 1. Out of the 363 respondents, 186 (51.2%) were male while 177 (48.8%) were female. Of these respondents, 18 (5.0%) were below 25 years old, 127 (35%) were between 26 and 40 years old, 168 (46.3%) were between 41 and 55 years old and 50 (13.8 %) were 56 years or older. Fifty-two respondents (14.3%) were single, 243 (48.8 %) were married and 68 (18.7%) were divorced. Also, 33 (9.1 %) of them each had either no formal education or only completed their primary school, 61 (16.8 %) completed secondary school while 236 (65.0 %) had tertiary education. Only 9 (2.5 %) were students, 74 (20.4 %) were farmers, 82 (22.6 %) were traders, 121 (33.3 %) were civil servants and 77 (21.2 %) were professionals.

Table 1. Socio-demographic characteristics of respondents

Demographic variables		Frequency	Percentages	
Gender	Male	186	1.2	
	Female	177	48.8	
Age	Below 25 years	18	5.0	
	26 – 40 years	127	35.0	
	41 – 55 years	168	46.3	
	56 years and above	50	13.8	
Marital status	Single	52	14.3	
	Married	243	66.0	
	Divorced	68	18.7	
Educational	No formal education	33	9.1	
qualification	Completed primary school	33	9.1	
	Completed secondary school	61	16.8	
	Completed tertiary education	236	65.0	
Occupation	Student	9	2.5	
	Farming	74	20.4	
	Trading	82	22.6	
	Civil servant	121	33.3	
	Professional	77	21.2	
Religion	Christianity	363	100	

Source: Field survey 2023.

One hundred and fifty-eight of the respondents strongly agreed that most rice farmers were not aware of the World Bank-assisted agricultural programmes, 196 (54%) agreed, while only nine disagreed (Table 2). Also, 149 respondents (41%) strongly agreed, 179 (49.3%) agreed and 35 (9.6%) disagreed that there was general awareness of World Bank-assisted agricultural initiatives. About 30% of the respondents strongly agreed, 68% agreed and only 2.5% disagreed

that the awareness did improve the livelihood of the farmers. Slightly more than one-third of the respondents strongly agreed, 61% agreed, 2.5% disagreed and 2.2% strongly disagreed that the WB agricultural support initiatives tended to improve production. These results suggest that rice farmers who were aware of World Bank agricultural support programmes tended to have a better livelihood than those who were not. According to Ezedinma (2019), awareness can significantly improve the livelihood of rice farmers with regards to access to resources and inputs. The World Bank often provides funding and technical support for agricultural projects which often lead to improved access to modern farming technologies, high-quality seeds, fertilizers, and other essential inputs. This can enhance crop yields and overall farm productivity.

On whether the World Bank grants to rice farmers did affect their livelihoods (Table 3), all the respondents agreed that most rice farmers who benefited from the World Bank grant showed improved farming capacity. However, 327 respondents strongly agreed or disagreed that their rice farming experience had not benefited from the grant before now. All the respondents also agreed, some strongly, that the chances of benefiting from the grant were difficult. The respondents agreed that their standard of living was enhanced by World Bank grants. Bahsi and Ceti (2020) found that rice farmers' productivity always increased when they received World Bank grants.

Table 2. Responses on awareness level.

S/N	awareness level and livelihood	SA	A	D	SD
1	Most rice farmers are not aware of	158	196	9	0
	World Bank agricultural initiatives.	(43.5) *	(54.0)	(2.5)	(0.0)
2	There is awareness of World Bank agricultural	149	179	35	0
	initiatives.	(41.0)	(49.3)	(9.6)	(0.0)
3	The awareness has improved the livelihood of farmers.	108	246	9	0
	•	(29.8)	(67.8)	(2.5)	(0.0)
4	Rice farmers who are aware of World Bank agricultural	125	221	9	8
	support initiatives tends to have high production.	(34.4)	(60.9)	(2.5)	(2.2)

^{*}For this and subsequent tables, percentages are in parenthesis

Globally, the World Bank has supported rice farmers and their livelihoods through a number of initiatives. Enhancing agricultural methods, raising productivity, guaranteeing food security, and advancing sustainability are frequently the main goals of these programs. The Bank frequently provides funding for rice-specific agricultural development initiatives in a number of different nations (Adetiloye, 2019).

Table 3. Benefit of World Bank grant to farmer's livelihood.

Table of Benefit of 11 of the Barne State of All met Stat					
	Skill acquisition	SA	A	D	SD
1	Most rice farmers have benefited from World Bank grant.	148 (40.8)	215 (59.2)	0 (0.0)	0 (0.0)
2	World Bank grant have improved my rice farming capacity.	99 (27.3)	264 (72.7)	0 (0.0)	0 (0.0)
3	Since my rice farming experience, I have not benefited from World Bank grant.	97 (26.7)	230 (63.4)	27 (7.4)	9 (2.5)
4	The World Bank Grant is not always easy to access.	66 (18.2)	297 (81.8)	0 (0.0)	0 (0.0)

Concerning the supply of farm inputs, 196 respondents (54%) strongly agreed and 158 (43.5%) agreed that the World Bank often distributed farm inputs to farmers and about 90% of the respondents agreed that their rice farming generally benefit from input supply, including fertilizers and herbicides (Table 4). However, majority of them did indicate that only few benefited from the inputs supplied. Earlier reports showed that the Bank also supported training programs for farmers, helping them acquire new skills and knowledge (Osabohien et al., 2020). This might include best practices in crop management, pest control, irrigation techniques, and sustainable farming methods. These skills can lead to higher yields and better-quality crops. The

Cross River commercial agriculture programme also facilitated rural infrastructure in Cross River north, such as roads, bridges, and storage facilities. Improved infrastructure can reduce post-harvest losses, enable farmers to get their products to market more efficiently, and increase the overall value of their produce. Since the programme targeted not just individual farmers, but entire communities, it enabled the development of cohesive farming communities that share resources, knowledge, and support systems, ultimately strengthening the overall agricultural sector (Fowowe, 2020).

Table 4. Responses on the supply of farm inputs.

S/N	Supply of farm inputs	SA	A	D	SD
	and livelihood				
1	World bank often distribute farm inputs to farmers.	196 (54.0)	158 (43.5)	9 (2.5)	0 (0.0)
2	In my rice farming experience, I have benefited from rice inputs. Fertilizer, herbicides and others are	149 (41.0)	179 (49.3)	35 (9.6)	0 (0.0)
3	regularly sent to rice farmers by the world bank.	108 (29.8)	246 (67.8)	9 (2.5)	0 (0.0)
	Only few often benefit from the	107 (01.1)	224 ((2.2)	0 (0 5)	0 (2 2)
4	world bank rice inputs.	125 (34.4)	221 (60.9)	9 (2.5)	8 (2.2)

All the respondents agreed or strongly agreed that the supply of improved rice seeds increased the productivity of their rice farms and that their supply was part of the World Bank initiatives (Table 5). One hundred and seventeen respondents (32.2%) strongly agreed and 210 (58%) agreed that they had received improved seeds from the World Bank free of charge.

Table 5. Importance of improved seedlings to rice farmers and their livelihood.

	Skill acquisition	SA	A	D	SD
1	Improve rice seeds enhanced productivity	169(46.6)	194 (53.4)	0 (0.0)	0 (0.0)
2	Improved rice seeds are part of the World Bank	99 (27.3)	264(72.7)	0(0.0)	0(0.0)
	initiatives				
3	I have received world bank rice improved seedling	117(32.2)	210 (57.9)	27(7.4)	9 (2.5)
4	In my community, rice seedlings are always given	95 (26.2)	268 (73.8)	0(0.0)	0(0.0)
	to farmers				

As shown in Table 4, the supply of farm inputs contributed positively to the livelihood of rice farmers as reported previously (Adetiloye, 2019). The World Bank has historically been involved in various projects and initiatives aimed at supporting agriculture, including rice farmers. For rice farmers specifically, the focus was on provision of better access to high-quality seeds, fertilizers, pesticides, and modern farming equipment to enhance productivity (Adetiloye, 2019). The use of improved seeds and seedlings enhances the productivity of rice farmers, leading to improvements in their livelihood (Singh, 2022; Mamun et al., 2021). Chauhan et al. (2017) considered improved rice seeds as an asset to farmers. Supporting farmers in Cross River north in accessing these improved seeds through government programs, agricultural extension, or partnerships with research institutions can significantly impact their livelihoods and contribute to agricultural development and food security. Improved seeds also often result in better quality rice, which can fetch premium prices in the market (Ezedinma, 2019). This can directly contribute to increased income for farmers (Orji et al., 2023).

Conclusion

The World Bank's Commercial Agricultural Project in Cross River state aimed to enhance the livelihoods of rural farmers by implementing various support strategies across the agricultural value chains. In the case of rice farmers in Cross North senatorial zone, these initiatives typically focused on improving farm yield, increasing market access, providing grants, and promoting

sustainable farming practices. Findings from this study underscores the importance of holistic approaches that not only focus on economic growth but also prioritize the welfare of smallholder farmers and sustainable agricultural practices. Rice is an essential crop for the attainment of food security locally and nationally because it is considered a major staple food. Rice farming in Cross River North has seen some remarkable developments because of the World Bank intervention and this ultimately improved the farmers' livelihoods.

References

- Abah, N.C. (2001). Development Administration: A Multidisciplinary Approach, Enugu: John Jacobs Classic Publishers.
- Adams, O. K. (2018). Challenges of Rice Production in Nigeria: A Case Study of Kogi State. *Food Science and Quality Management*, 74(14), 2225-0557.
- Adeola, O. and Ikpesu, F. (2016). An empirical investigation of the impact of bank lending on agricultural output in Nigeria: A vector autoregressive (VAR) approach. *The Journal of Developing Areas*, 50(6), 89-103.
- Adetiloye, K. A. (2019). Agricultural financing in Nigeria: An assessment of the agricultural credit guarantee scheme fund (ACGSF) for food security in Nigeria (1978 2006). *Journal of Economics*, 3(1), 39 48.
- Bahsi, N. & Ceti, E. (2020). Determining agricultural credit impact on agricultural production value in Turkey. *Ciencia Rural*, 50(11), 1-13.
- Chauhan, B.S., Jabran, K., Mahajan, G. (2017). Rice Production Worldwide. Springer International Publishing AG, Switzerland.
- Eneji, Rosemary I. & Attah Frank Mbeh (2018). Farmers' Perception of Poverty and Welfare in Boki Local Government Area of Cross River State, Nigeria. International Journal of Research Granthaalayah, 6(7), 151-158. https://doi.org/10.5281/zenodo.1325670.
- Eneji, R. I. & Akwaji, F. (2020). Evolution, Strategies and Problems of Poverty-Alleviating Agricultural Policies and Programmes in Nigeria. Advances in Applied Sociology, 2018, 8, 699-720. http://www.scirp.org/journal/aasoci
- Eyo, E. O., Nwaogu, M. A., & Agenson, M. E. (2020). Agricultural credit guarantee in Nigeria and the uncertainties of the macroeconomic environment. *International Journal of Economics and Financial Issues*, 10(20), 20 29.
- Ezedinma, C.I., (2019). Economic evaluation and prospects for double rice crop production in humid
- Fowowe, B. (2020). The effects of financial inclusion on agricultural productivity in Nigeria. *Journal of Economics and Development, 22(1), 61 79.*
- Mamun S., Nusrat, F., and Debi, M. R. (2021). Integrated Farming System: Prospects in Bangladesh J. *Environ. Sci. & Natural Resources* 4(2): 127-136.
- Moses, J. D. (2012). Analysis of production efficiency of rain fed rice in Adamawa and Taraba states, Nigeria. Unpublished doctoral thesis, Department of Agricultural Economics and Extension, Modibbo Adamawa University of Technology Yola, Nigeria.
- Orji, A., Ogbuabor, J. E., Anthony-Orji, O. I. & Alisigwe, J. N. (2023). Agricultural financing and agricultural output growth in developing economies: Any causal linkage in Nigeria? *International Journal of Finance, Insurance and Risk Management, 2, 34 43.*
- Osabohien, R., Mordi, A. & Ogundipe, A. (2020). Access to credit and agricultural sector performance in Nigeria. *African Journal of Science, Technology, Innovation and Development*, I-10.