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Extent of Participation by the Rural Farmers in the Presidential Intervention on Cassava Production (PICP) in Kogi State, Nigeria

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Abstract

Multiple studies on Presidential Intervention on Cassava Programme (PICP) failed to address the participatory aspect of the rural farmers in Kogi State. The study focused on the determination of the extent of participation of the rural farmers on PICP in the study area. The study was guided by one research question and a null hypothesis. Descriptive and inferential statistics were adopted for the study. Both primary and secondary sources of data were used in the research. A total of 800 copies of questionnaire were distributed to the respondents, 753 were returned for analysis which successfully gave 94.1% coverage. The result showed that the extent of participation of the rural farmers in PICP ranged from 9.0% to 10.3% across the Local Government Areas (LGAs). ANOVA test revealed that there was variation in the participation of farmers on the programme. Chi-square test (P=0.00) showed that the extent of participation varied significantly to confirm the acceptance of the alternative hypothesis. Against this background, mass production was lopsided as some LGAs had plenty while others little. This scenario negatively affected farmers' rural development. The researchers recommended that all the government agencies should embark on sensitization and re-sensitization campaign among the farmers, farmers' prompt empowerment, provision of seedlings, loans to be distributed by farmers themselves when given.

Keyword: *Participation, rural farmers, presidential intervention, cassava production*

Introduction

At the beginning of the 21st century, several efforts were put in place around the world to speed up economic growth and rural development. The core areas of importance included poverty eradication, woman empowerment, and improvement in education; health and environment production. Generally, around the world, the people living in the developing countries have received increased focus due to their poor welfare packages. The increasing attention gave way to growth, rural development and social capacity in the global area is silent, but steadily overthrowing the economic and social conflicts of rural farmers that are common in most developing countries (Ndubueze & Ekaine, 2014). It was stressed that total welfare package was necessary for the poor in the social ladders. Nigeria is mono-product economy that depends basically on oil and gas revenue for her income generation (Olabinjo & Olumurewa, 2019). There is no doubt that petroleum (crude oil) has contributed greatly to Nigeria's revenue, since its discovery in 1956 and more especially from 1970 when its price was on the upward trend. According to Ohimain (2015), for a country to attain growth and development, its economy has to be diversified and that cannot take place in vacuum. Furthermore, Ohimain (2015) emphasized that the importance of diversification into agriculture cannot be over stated adding that total dependence on the central economy was harmful.

The centrality of crop enterprise in the interface between agriculture and the rural sector cannot be easily waved aside. This is because, an agric-based business like cassava enterprise has the capacity to transform the life of rural farmers through generating employment, income, poverty reduction and provision of corporate social responsibility through its perquisite infrastructure resulting from rural industrialization (Ohimain, 2015; Ejim & Omachi, 2022). The synergy between agricultural crops like cassava production with its enterprise and agro-industrial linkage is a great potential for development and transportation of the poor rural majority in Nigeria. Despite its importance in the rural development process, the cassava production sector faces a myriad of problems, ranging from uncertainty of nature to the impulsive desire of political inconsistencies (Ohimain, 2015). The author quickly asserted that there must be a political and administrative capacity for the planning and implementation of community development strategy. The diversification of economy through the practice of agricultural crop production such as cassava and development strategy was necessary to transform the rural farmers.

According to Kogi State Agricultural Development Project (KSADP, 2010), Giller, et'al (2021), cassava is widely grown today over a wide range of climatic, soil and ecological zones. Researches over the years showed that cassava scientifically belongs to the botanically family euphorbiaceous and two varieties also known to be of economic value which are the bitter and the sweet ones. In addition, these researches stressed that cassava was important in many developing economies such as the tropical parts of Africa, West Africa, Brazil, Malagasy, Indonesia, Philippines, Malaysia, Thailand and China (Pretty, et'al, 2018; Oluwole & Adio, 2013; Okpe, 2023). The International Institute for Tropical Agriculture (IITA, 2010) supported the information that cassava played a major role in the effort to alleviate the food crisis in Africa and Nigeria in particular. The Institute's Impact Studies on cassava in the same year revealed that, the introduction of improved varieties has provided food for over 50 million rural dwellers in Nigeria.

One of the most important and potentially most influential development initiatives that provided strategies for solving these problems of rural development was the Global Cassava Development Strategy and Implementation Plan (GCDIP) held in Rome from 26-28th April, 2000 (IITA, 2010). According to Adebayo, Nicholas, Roger, Monde, Ivor, Beatrice & Nicholas (2013), the implementation was spearheaded in the early part of 2000 by the Food and Agriculture Organization (FAO) and International Fund for Agricultural Development (IFAD) in collaboration with International Center for Tropical Agriculture (ICTA), French Agriculture Research Center for International Development, International Institute for Tropical Agriculture (IITA) and National Resources Institute (NRI). Cassava production gained prominence in Nigeria following the pronouncement of Presidential Intervention on Cassava Production (PICP) and marketing in July, 2002 by the administration of President Olusegun Obasanjo (Okhankhuele, Opafunso, Akinrinola, & Ojo, 2017; Ohimain, 2015). According to Echebiri and Edaba (2023) and Adeboye (2013), the major objectives of the PICP were to increase production, processing and utilization of cassava products, identify and develop new market opportunities for substitution and export which would stimulate increase in the private sector investment and establishment, provision of raw materials for the emerging local industries, increase in the yield, productivity and to expand annual production to achieve global food provision. The overall aim of the intervention was to create and bring `rural development.

Participation of the rural farmers at the grassroots in the programme was important to bring success. Multiple studies focused much attention on different perspectives. The study become imperative as previous studies on cassava failed to address the farmers' participation in the PICP. Therefore, this study is to determine the extent of participation of the rural farmers in PICP in the area.

Theoretical framework

Cassava production is often influenced by various theoretical frameworks that centre round rural development and agricultural economies. Several theories provided insights into how Presidential Intervention can impact on cassava production and rural participation. Therefore, this study is anchored on Diffusion Model of rural development involving farmers' participation.

This model emphasizes that there is a difference between famers in the same economic and geographical region. This was due to the farmers' adoption of new technologies as a result of participation and contact (Emmanuel, Preston & James, 2022; Okpe, 2023). The model stated that communication was a major way of diffusing innovations. The authors also stressed that the model helped to bring extension services into the less developed nations as well as motivate farmers to follow the steps of the successful farmers in the developed countries.

Research Objective

i. What is the extent of participation by the rural farmers on PICP by the Local Government Areas in Kogi State?

Research Hypothesis:

The study was guided by a null hypothesis tested at 0.05 level of significance.

Ho: There is no significant difference in the extent of participation by the farmers on PICP in Kogi State.

Methodology

The exploratory survey research design was adopted, which was due to the nature and purpose of this study. Multi-stage sample technique was used, since it was not feasible to sample the entire population in the ten (10) LGAs: Adavi, Ankpa, Bassa, Dekina, Igalamela, Kabba/Bunu, Okehi,

Okene, Omala and Yagba West. The LGAs selected were the places PICP existed. For the purpose of the study, eight hundred (800) cassava farmers were randomly selected, which was eighty (80) from each LGA. Seven hundred and fifty three (753) copies of the questionnaire were returned for analysis. The data were collected using both primary and secondary sources. Furthermore, the instrument was validated by three experts: two in the Department of Geography and one in the Department of Crop Sciences, University of Nigeria, Nsukka (UNN). The reliability test result showed Cronbach Alpha coefficient =0.715 which indicated that the questionnaire was reliable.

The Study Area

Kogi State is located between Latitudes 7º49'N and 8^0 44N Longitude $5^0$40'E and 6º33'E (Kogi State ADP, 2010), with a total area of 29, 833 square kilometers and population of approximately 4.8 million people (Federal Republic of Nigeria Official Gazette, 2021). Climatically, the study belongs to 'AW' climate type i.e. tropical wet-dry climate based on Koppens classification (Ali 2010). It is located within the guinea savannah ecological zone (Buba, 2010; Ignatius, 2015).

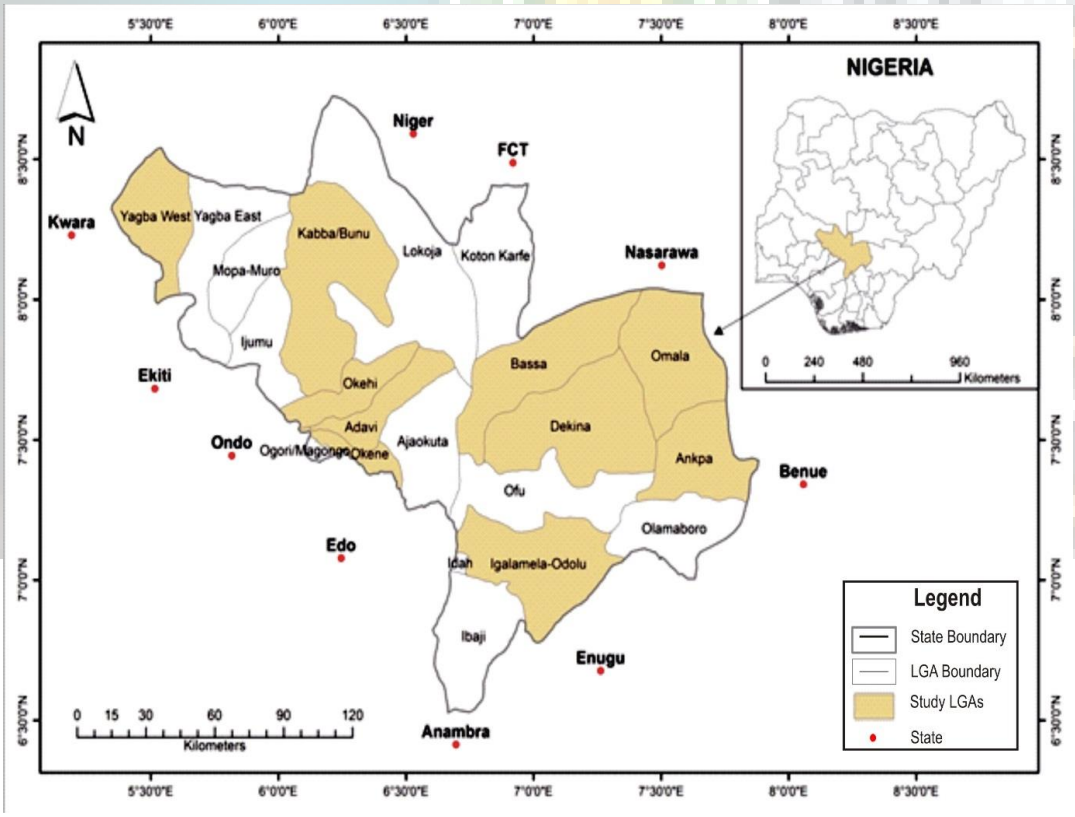

Fig 1: Kogi State Showing the Study Area: Source-Authors' fieldwork, 2020.

Result and Discussion

Is there significant difference in the extent of participation by the rural farmers on PICP in Kogi State?

TABLE 1: Extent of Participation by the Rural Farmers on PICP by the LGAs, Kogi State

L.G. As	Adavi	Ankpa	Bassa	Dekina	Igalamela	Kabba – Bunu	Okehi	Okene	Omala	Yagba West
Yes	78(10.3%)	69(9.3%)	73(9.7%)	74(9.8%)	74(9.2%)	73(9.4%)	74(9.8%)	72(9.5%)	71(9.5%)	72(9.0%)
No	0(0%)	3(0.3%)	1(0.1)	3(0.4%)	0(0%)	3(1.0%)	4(0.5%)	3(0.3%)	3(.4%)	3(1.0%)
Total	78(10.3%)	72(9.6%)	74(9.8%)	77(10.2%)	74(9.2%)	76(10.4%)	78(10.3%)	75(9.8%)	74(9.9%)	75(10.0%)

Source: Authors' Fieldwork, 2023

The success of the agricultural programme depended on the full participation of the farmers. The determination of the extent of participation by the rural farmers was done based on the LGAs. The 'Yes' responses indicated that Adavi had (10.3%), Ankpa (9.3%), Bassa (9.7%), Dekina (9.8%), Igalamela (9.2%), Kabba/Bunu (9.4%), Okehi (9.8%), Okene (9.5%), Omala (9.5%) and Yagba West (9.0%). It ranged from 9.0% to 10.3% across the LGAs in the study area. It was also shown from the study that the least came from Yagba West with 9.0% and the highest from Adavi LGA with 10.3. While, the 'No' stated there was no participation. It clearly showed the extent to which each LGA in the study area participated on PICP in percentages.

From the indiscriminate use of these sources of the information for the extent of participation by the rural farmers, it is difficult to accurately identify if there existed significant differences in the various sources of information across the study area, hence the verification using the application of ANOVA in analyzing the data.

With regard to the results of the ANOVA in the LGAs as shown on **Table 2** below, nine items/ variables varied significantly; namely: the enrolment of the farmers in the PICP ($F=5.249$; $p<0.00$),

rural farmers formed cassava group association for enhanced operation of the PICP (F=7.638; p<0.00), the farmers helped in the process of clearing the land in the area (F=6.515; p<0.00), the chemicals for the crop were not easily accessible to the farmers (F=5.444; p<0.00), the farmers leased the family land for the take off of the PICP (F=5.444; p<0.00), the planting of the crop was generally done by the farmers in the area(F=2.478; p<0.009), application of the chemicals to the crop was done by the farmers(F=4.390; p<0.00), the farmers applied fertilizers to the land and crop (F=3.790; p<0.00) and the farmers were involved in the harvest of cassava (F=3.018; p<0.001) vary significantly at the extent of participation of the rural farmers on PICP. While only three items: Rural farmers' acceptance of PICP in the area (F=0.891; p>0.53), the farmers did access funds for early planting (F=1.180; p>0.304) and farmers formed groups to help ploughing and weeding land (F=1.227; p>0.27) did not vary significantly. This means that the extent of the farmers' participation on the programme vary across the LGAs in the study area.

Table 2: **ANOVA of the extent of participation by the rural farmers on PICP in the study area**

ITEMS	BSS	WSS	TSS	SB2	SW2	CALC. F	SIG.LV
Rural farmers' acceptance of PICP in their area	0.238	22.059	22.297	.026	.026	0.891	0.53
The enrollment of the farmers in the PICP was generally high	5.866	92.264	98.130	.652	.124	5.249	0.00*
Rural farmers formed cassava group association for enhanced operation of the PICP	8.014	86.623	94.637	.890	.117	7.638	0.00*
The farmers helped in the process of clearing the land in the area	3.541	44.868	48.409	.393	.060	6.515	0.00*
The farmers did access funds to be able to start early in the planting season	1.233	86.220	87.453	.137	.116	1.180	.304
To get chemicals for the crop was not easily accessible to the farmers	9.144	138.668	147.811	1.016	.187	5.444	0.00*

The farmers leased their family land for the take off of the PICP	6.934	65.353	72.287	1.016	.187	5.444	0.00*
The farmers formed groups to help in the ploughing and weeding land	1.999	134.450	136.449	.222	.181	1.227	0.27
The planting of the crop was generally done by the farmers in my area	2.419	80.595	83.015	.269	.108	2.478	.009*
Application of the chemicals to the crop was done by the farmers	4.920	92.517	97.437	.547	.125	4.390	0.00*
The farmers applied fertilizers to the land and crop	4.892	106.545	111.437	.547	.143	3.790	0.00*
The farmers were involved in the harvest of cassava	4.009	107.437	11.437	.445	.145	3.081	0.001*

Significant variation at (P<.05) level of significance: Source- Authors' fieldwork, 2023

In order to ascertain more information about the extent of participation of the rural farmers on the programme, the main objective was hypothesized. The analysis was carried out using Chi-square test.

Hypothesis 1

Ho: There is no significant difference in the extent of participation of the rural farmers on PICP in Kogi State.

H_1: There is significant difference in the extent of participation of rural farmers on PICP in Kogi State.

The **Table 3** showed the Chi-square test on the extent of participation of the rural farmers on PICP. With regard to the results of the Chi-square on the extent of participation of the rural farmers on PICP in Kogi State by the Local Government Area as shown on the table, p =(0.00) vary significantly at the extent of participation of the rural farmers on PICP. Since the result was less than 0.05, the null hypothesis which stated that there was no significant difference in the level of participation in the area was rejected. Therefore, the result concluded that, there was significant difference in the level of

participation of the rural farmers across the LGAs on the PICP in the study area. It meant that there was significant variation in the participation of the rural farmers on the programme in the study area.

Table 3: **Chi-square Tests on the extent of participation of the rural farmers.**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	43.088	9	.000
Likelihood Ratio	47.076	9	.000
Linear-by-Linear Association	6.120	1	.013
N of Valid Cases	753		

Significant variation at (P<0.05) level of significance; Source: Authors' field work, 2023.

Conclusion and Recommendations

In any given governmental agricultural programme, participation of the rural farmers on the programme was necessary in order to bring huge success. The local farmers were not adequately captured across the study area, which actively affected the programme negatively. The study revealed that the extent of participation of the farmers varied across the LGAs in the State. The study therefore recommends that:

i. Various government agencies should carry out enough and proper sensitization and re-sensitization among the farmers across the length and breadth of the LGAs in the state. This could be done through the mass media using local languages such as televisions, radio, social media, and so on.

ii. Government should ensure prompt empowerment of the rural farmers in the area. The agents should provide funds for the farmers early enough into the rainy season for prompt buying of the necessary tools needed.

iii. The necessary and improved seedlings should be provided for onward distribution by the farmers themselves. This would help in bringing more participation among the farmers.

iv. Farming implements should be provided at reduced rates and marketing of such implements to be done by farmers themselves. The necessary machines like the bulldozers, caterpillars,

harvesters were not easy to come-by. Therefore, the hiring and buying prices of such should be reduced to accommodate the poor farmers.

v. In order to make the rural farmers participate actively, loans should be given at reduced interest rates. This would help them (farmers) to buy the necessary things and cultivate enough farm land in their areas.

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