

International Journal of Agricultural Economics Extension, Volume 4, Number 1, 2012

ECONOMICS OF ENHANCING CASSAVA PRODUCTION BY RURAL FARMER IN
ORUMBA SOUTH LOCAL GOVERNMENT AREA OF ANAMBRA STATE

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ABSTRACT

The study was designed to exploit strategies for enhancing cassava production by the rural farmers in Orumba South Local Government Area of Anambra State. Multistage random sampling technique was used to select 80 respondents for the study. Data were collected using structured interview schedule and review of related literature. The data were analyzed using frequency counts mean scores and percentages. The result revealed that among the strategies used the best for enhancing cassava production in the area was organization of cassava farmers into farmers groups, followed closely by cooperative society and Rural Farmers Club. It was noted also that the major problems encountered by the cassava farmers of the area were unavailability of capital and land, high cost of labor, unpredictable weather.

Keywords: Economics, Cassava, Production, Enhancing, Food Security.

INTRODUCTION

Before independence in 1960, the percentage contribution of agriculture to the Gross Domestic Product (GDP) of Nigeria was about 70%, and by 1996, the contribution had dropped to 55%. The situation had continued to deteriorate with the massive exploitation of oil resources especially in the 1970's. Roots and tubers are among the most important group of staple food in the tropical world. Root and tuber crops are the largest sources of calories for the Nigerian teeming population (Olaniyan et al, 2001). Nevertheless, agriculture still maintains a unique position in the economy of Nigeria. Although agriculture is yet to be given adequate, sustainable and efficient attention (Holden et al 2004). The failure of agriculture in developing world to move forward is one of the major factors contributing to widening the gap in the income earning capacities of the rural farmers (Quin, 2001). The objective of this study is to discover how production of cassava by the rural farmers in Orumba South Local Government Area can be enhanced. Over the years, various National Development plans have advocated rapid transformation of agriculture to ensure self-reliance in basic food production. In the ongoing Presidential initiative of the Nigerian Government to promote cassava to a status of an industrial and export crop, it is estimated that an annual production of 150 million tones of roots would be needed to meet national demands. The population of Nigeria is now over 100 million and still increasing with such an enormous rate of population growth, there is challenge for the provision of food for satisfying the needs of the people.

The objective of the study is to discover how cassava production can be enhanced in Orumba South of Anambra State. Nigeria is the world largest producer of cassava (Skott et al, 2000). It has been rated as one of the most important staple food crop grown in tropical countries and a potential export crop in Nigeria. It has also been used as security against unforeseen famine (famine reserve) because of its drought resistance. This could be one of the reasons millions of hectares of land occupied by standing cassava belong to peasant's farmers.

The above trend has continued over the years unabated because each successive Nigerian Government has continued to pay-lip service to the production of local staple food stuffs with little or no predicament. Among these staple food crops are cassava, yam cocoyam, maize, potatoes and rice. In 1998, the Rockefeller Foundation made funds available to the International Institute of Tropical Agriculture (IITA) to collect authoritative information on cassava production systems. The information on cassava production is needed to improve the relevance of research on cassava by national and International agricultural research centers, in order to realize the potential of cassava for increasing food supply. Cassava contributed 14% of average daily dietary intake per person in Nigeria, the fourth largest contribution after sorghum 22% millet 19% and yam 15% (FAO, 1993) the national average figure, however, greatly underestimates the importance of cassava in major producing zone of the country Ugwu et al (1990) noted that cassava supplies about 70% of the daily calories intake of over 50 million Nigerians in other countries. They are declining, in Nigeria. Cassava production should be enhanced because it is easy to grow in comparison with yam, grains or legumes and relatively to those other commodities, it tolerates poor soil and pests/diseases while carbohydrates yield per unit of input is high. If research on cassava production is made more effective, perhaps cassava can be used to close the nation's food gap. Among all the major food crops, cassava (*manihot esculenta*) accounted for the largest proportion of the food crop generating cash income of producing households. Consequently, cassava producing households depended on cassava more than any other crop. Cassava was therefore, not a subsistence crop or just a food security crop; it is the main source of cash income for the producing households of Orumba Local Government Area and for the country at large.

However, with the inception of the oil boom era of the 1970's the contribution of Agriculture in the area of cassava production to the country's economic growth dwindled rapidly. For instance, the growth rate of cassava production fell from 1.75% in the 1970-1975 period to -4.4% in 1980, thereafter it made frantic effort at recovery, such that the growth rate of cassava was about 14.55% in 1990, after which it started failing again (Shaib, 1997). He further noted that food price inflation, especially for cassava was in the increase, averaging 28.84% between 1986 and 1990.

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It also increased 34.3% between 1991 and 1994 which implies that access to food by Nigerians and especially the people of Orumba Local Government Area was becoming increasingly difficult.

METHODOLOGY

The study was conducted in Orumba South Local Government Area of Anambra State. The ecology of the area favours growing of roots and tubers. Cassava is not regarded as a food security or subsistence crop; but as main source of cash income for the rural farmers in the study area. Almost all the families are cassava farmers, as a major or secondary crop produced. Structured Interview schedule was used to elicit information for the study. The local government area is made up of 15 towns while 8 of them were randomly selected and used for the study. Five villages were selected from each town, giving a total of forty villages. Two farmers were randomly selected and this gave a total of (80) farmers. The selection was based on the fact that the farmers in the area grow cassava extensively and also for social, economic, and cultural importance of the crop in the area. Cassava meals are regarded as a prime delicacy in different forms. Five villages were selected from each town, giving a total of forty villages. Two farmers were randomly selected to give a total of (80) farmer. Data for the study were collected from the respondents through structured interview schedules, observations and focus discussions. Data were analyzed using mean scores, frequency counts and percentages.

RESULTS AND DISCUSSION.

The table 1 show that male farmers were (52.5%) while female farmers (47.5%). This means that the respondents were mostly males, which implies that any programme aimed at improving cassava production in Orumba local Government Area of Anambra should be directed to the male members of the household. The table also show that (35 %) of the respondents were full-time farmers while (65%) of the respondents were part-time farmers. It was observed from the result that greater attention should be paid to the full-time farmers, which had less population. It is necessary to encourage them which will lead to commercial farming thereby enhancing cassava production in the area. The table also showed that most respondents are petty traders (35%) and artisans (37.5%), (15%) of them are civil servants while (10%) do other jobs or are students. This implies that almost all the farmers engage in other jobs, which may lead to lack of concentration to farming activities.

Table 1 : Socio-economic Characteristics of the Respondents

Variable	No of Respondents	Percentages
Sex:		
Male	42	52.5
Female	38	47.5
Farming status:		
Full-time farmers	28	35.00
Part-time farmers	52	65.00
Other jobs (combined with farming)		
Civil servant	12	15.00
Trading	28	35.00
Artisan	30	37.5
Others	10	12.5

Source: Field survey 2008.

Table 2 showed that about (85 %) of the respondents are aware of improved cassava variety while few respondents about (15%) admitted that they had not seen or heard of improved cassava varieties. This implies that majority of the farmers in the area are very aware of improved cassava varieties this implies that enhancing cassava production in the area will be high. This being as a result of the fact that those farmers who have knowledge of improved cassava variety will easily adopt a new technology or change programme than those farmers that have not seen or heard of improved cassava variety.

International Journal of Agricultural Economics Extension, Volume 4, Number 1, 2012**Table 2: Frequency Distribution of Respondents Based on Knowledge of Improved Cassava Varieties (n = 80)**

Response	No of Respondents	Percentage
Yes	68	85
No	12	15.00
Total	80	

Source: Field survey 2008

Table 3 showed that most improved cassava varieties planted in the area by the farmers were TMS 30555 (46.25%), U/41044 (18.17%), NR/ 7706 (17.5%), TMS 30211 (11.25%), TMS 30572 (5%)A and TMS 30522 (1.25%). This implies that TMS 30555 is the most widely cultivated cassava variety among the improved cassava varieties in the study area. The implication is that all farmers in the study area will be educated on the high yielding quality and adaptability of TMS30555 in the area. This will enhance and increase cassava production, thereby increasing the income of the rural Eziagu cassava farmers.

Table 3: Percentage Distribution of Respondents According to Varieties Planted (n= 80)

Types	No of Respondents	Percentage
U/41044	15	18.75
TMS 30555	37	46.25
NR/7706	14	17.5
TMS 30572	4	5.00
TMS 30211	9	11.25
Others	1	1.25

Source: Field survey 2008

Table 4 revealed that 53.75% of the farmers bought their improved cassava variety from their neighboring farms or friends, 36.75% of them bought theirs from the market, 7.5% got theirs Extension Agents while 2.5% purchased theirs from universities and research institutes. This revealed that majority of the farmers acquire their planting materials from neighboring farms/friends and markets. The implication of this is that the farmers may buy contaminated planting materials, which will cause reduction in crop yield and adversely affect the income of the rural farmers. Extension agents should play an important role in the sourcing of planting materials to the rural farmers since they are more knowledgeable than the rural farmers in dictating healthier and good quality cassava.

Table 4: Frequency Distribution of Respondents on Acquisition of Planting Materials. (n=80).

Source	No of Respondents	Percentage
Bought from market	29	36.25
From Extension Agents	6	7.5
From Neighbouring farm/friends	43	53.75
Others	2	2.

Source: Field survey 2008.

Table 5 showed that 10 of the farmers said that the maturity period of the improved cassava variety 4-6 months, 31.25% of them said theirs mature in 7 - 9 months, 37.75% said it was 10 - 12months, while 16.25%, 1.25% and 3.5% reported that theirs mature in 13 – 15 months, 16 – 18 months and 19months and above respectively. This implies that the maturity period of the improved cassava varieties ranges from 7-12months which may be as a result of varietal differences, varietal type and soil type.

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TableS: Frequency Distribution of Respondents on the basis of maturity period (n= 80)

Maturity Period (months)	No of Respondents	Percentage	Mean X
4-6	8	10.0	
7-9	25	31.25	
10-12	30	37.75	10.3
13-15	13	16.25	
16-18	1	1.25	
19 and above	3	3.75	

Source: Field survey 2008

The overall purpose of extension services is to disseminate among rural people, useful and practical information in agriculture and family living. The situation in the study area is still obtainable .Table 6 shows that 26.25% of the farmers recommended Extension Agents as the best source of information for enhancing production followed by the neighbours 25%. It was observed that neighbours in the area have good interaction among themselves, which facilitated information concerning cassava production to flow well between them. The table below showed that, the least percentage of the best source of information for enhancing cassava production that of newspaper/magazine (1.25%).This implies that most farmers in the study area are illiterate, therefore reading, newspaper/magazine is almost impossible.

Table 6 Distribution of Respondents Based on the Best Information source for Enhancing Cassava Production. (n = 80)

Source of Information	No of Respondents	Percentage
Neighbours	20	25.0
Television	13	16.25
Radio	9	11.25
Newspaper/magazine	1	1.25
Workshop	5	6.25
Seminar	4	5.0
Extension agents	21	26.25
Agric shows	7	8.75

Source: Field survey 2008

The table below show that credit facilities contributed to a great extent (57.5%), while procurement of fertilizers (35.00%), raw materials (30.00%) and mechanization (26.25%) followed. Adequate storage facilities and amenities had (18.75%) and (15%) respectively. This implies that cooperative societies had a great and positive influence on improving and enhancing cassava production by the rural farmers in the study area. The cooperative society's influence through provision of credits (loans) at cheaper interest rates encouraged the farmers to increase their productive capacity. They also influenced the procurement of fertilizers, this being an indispensable factor in agricultural production to ensure increased cassava and other crop yield The lowest influence from the cooperative societies is on benefit of amenities like provision of good road, this implies that the cooperative societies cannot provide such facilities. The cooperative society considers it as a capital project that is supposed to be provided by the government. This implies that if there are no good roads for the rural farmers to transport their farm produce to different points of delivery because cassava is perishable and can get damaged before getting to the market place or it can loose its value.

International Journal of Agricultural Economics Extension, Volume 4, Number 1, 2012**Table 7: Distribution of Respondents by Influence of Cooperatives Societies (n = 80)**

Strategy	Percentage
Mechanization	26.25
Procurement of fertilizers	35.00
Raw materials (cassava varieties)	30.00
Amenities (good road)	15.00
Credit facilities	57.50
Adequate storage facilities	18.75

Source: Field survey 2008

The table below revealed that capital and land with equal percentage 68.75% are the two major problems faced by the rural farmers in the study area. This implies that the rural farmers find it difficult to obtain enough capital and land for farming. Labour cost 25.00%, weather constraint (flood) 22.25%, poor soil 8.75% transportation problem 20.25% and storage problem 20.00% respectively constituted a problem in cassava production. The table also revealed that extension workers performance is not encouraging due to lack of incentives and facilities to enhance their effectiveness. The other problems such as fertilizer procurement 18.25% information about improved inputs 17.25%, pest and diseases 16.25% were not seen by the farmers as major problems. This implies that the government should provide these inputs at subsidized rates to the rural cassava farmers in the study area.

Table 8: Percentage Distribution of Respondents on Constraints to Cassava Production (n = 80).

Production	Percentage
Unavailability of capital	68.75
Unavailability of land	68.75
Labour cost	25.00
Unpredictable weather condition (flood)	22.25
Transportation problem	20.25
Storage problem	20.00
Extension worker contact	18.75
Fertilizer procurement	18.25
Improved inputs	17.25
Pest and disease	16.75
Poor soil	8.75

Source: Field source 2008.

The table 9 shows the percentage of each strategy used by the rural farmers in the study area. The table revealed that the cassava farmers have tried all the strategies but farmers group had the highest score of 46 percent, followed by cooperatives 41 percent, rural farmers club 23 percent, young farmers club 23 percent and the least farm work club 20 percent, The cassava farmers in the area rejected farm work club because of their fraudulent activities. The government should therefore make use of those strategies with the highest percentages as sources of enhancing cassava production in the area.

Table 9: Distribution of Respondents by Strategies of Enhancing Cassava Production (n = 80)

Strategy	Percentage
Farmers groups	46.25
Cooperatives	41
Rural farmers club	30
Young farmers club	23
Farm work club	10

Source: Field survey 2008.

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CONCLUSION AND RECOMMENDATIONS

Implications for sustainable cassava production

The study revealed that cassava is one of the major food and cash crop in Orumba South Local Government Area. The results showed that yields ranges from 30 percent to 68 percent with a mean of 36 percent. Some factors found to be directly related to cassava production were unavailability of credit and land; labour cost, transportation, lack of storage facilities, extension services, fertilizer procurement and sources of planting materials. Other factors such as processing and marketing of cassava products were found to have no significant effect on enhancing cassava production.

This implies that cassava farmers in the study area should utilize substantial knowledge and potentials in their environment to increase productivity and income. Enhancing the efforts of the rural farmers in cassava production, will go a long way in contributing immensely to agricultural development and increase their self-sufficiency in food production throughout the year. This will bring about increase income generation, improved standard of living and creation of employment for the teeming youths in the study area. Cassava production could be enhanced through formulation of gender sensitive government policy, education and enabling environment and high yielding cassava varieties.

Important factors such as access to credit need establishment of sustainable micro credit schemes. Policies directed at consolidating farmers farm holdings and the use of family labour through the formation of farmer's cooperatives will be fundamental in enhancing cassava production.

In view of the roles extension agents play in agriculture, farmers- extension worker contact should be improved to alleviate problems of obtaining improved planting materials in the study area.

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