

Economic Effect of Growth Enhancement Scheme (GES) On Ofada Rice Production in Obafemi Owode Local Government Area, Ogun State

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Abstract:

Rice has become essential commodity in many of households in Nigeria, this always result in disequilibrium of demand –supply relationship. This makes the rice production an important national issue leading to introduction of growth enhancement scheme as parts of Agricultural Transformation Agenda (ATA) by Nigerian government. Therefore this paper examined economic effect of growth enhancement scheme (GES) on ofada rice production in Nigeria, taking Obafemi Owode local government area, Ogun State as a case study. The data for this research was of primary origin and Purposive sampling techniques was used. The data collected were subjected to descriptive statistics and gross margin analysis. The results revealed that gross margin of about ₦ 472181.70k per ha by average GES farmer compare with about ₦459481.70k per ha by average non-GES farmer. The difference in the gross margin of both group was about ₦12700 per ha was as a result of government intervention. The programme had positive economic impact on the ofada rice producers' profitability level and contributes to their standard of living. Therefore, more farm input facilities and this policy should be encouraged to attract young graduates and unemployed youth.

Key words: Growth Enhancement Scheme (GES), Ofada Rice.

INTRODUCTION

Rice is a major food commodity in world trade. Rice has become the second most important cereal in the world after wheat in terms of production due to the recent decline in maize production (Jonnes et al, 1978). Rice is staple food for about half of the world and constituting a major part of the diet in many countries with 33 to 40% of the world population depends on rice for its main diet. The West-African sub-region accounts for 56% of the total rice production in Africa, while Nigeria alone contributes about 23% of total production (Kehinde 1999). The gap between rice production and demand has been found to be high and this fact has been attributed to the production of rice that is primarily in the hand of small holder farmers producing on the average of 4.6 tons of paddy per year from an average area of 3.3 hectares (Erenstein *et.al.*,2004, Daramola 2005). The level of domestic rice production in Nigeria is about 3 million metric tons while the domestic demand for rice is about 5million metric tons which have created to a huge gap for about 2million metric tons annually, thereby motivating the continued dependence on importation to fill the existing gap (Akande 2002, Erenstein et.al 2004, Awe 2006).

The Nigerian economy was self sufficient in rice production up till the 1960s. At independence in 1960, rice was mainly an occasionally food consumed mostly in affluent homes during festive period (Akande, 2002, UNEP 2005). However, in recent time, the consumption of rice has indicated that the status of rice in the average diet has been transformed from being a luxury food items to that of staple food taking the place of maize, cassava, yam among other staples (Daramola 2005).

Meanwhile, rice is produced across all the states in Nigeria; most of these states include Kwara, Ogun, Niger,

Benue, and Lagos, have tremendous potential for rice production. (Fasola, 2001: Ezedinwa 2005). However, today, Nigerian remains a largest importer of rice in large quantities, running into billions of naira annually from Asia, Europe and other African countries (Awoke and Okroji 2003). One of the reasons for this scenario is that domestic rice production is far below domestic demand and consumption. Some key factors have been identified as constraints to rice production; these include fertilizer and hybrid seeds, which are needed to improve the quality and quantity of rice production.

These inputs are often not easily available and accessible to farmers, where available, the price, quantity and delivery time are inappropriate, (Ugochukwu, 1999). Ofada rice is one of the indigenous rice varieties emanated from South-West Nigerian. It is an unpolished short grain with red kernel which is not related to any other rice. A lot of potential exists in its cultivation processing and export which gave consumer preference for its unique taste and aroma.

In order to fill the gap existing in rice industries, the Nigerian government has at various points in time embarked on several policies such as ban, tariffs, programmes directed primarily towards increasing self-sufficiency (Akande, 1994). In addition to previous agricultural development programmes, in July 2010, the federal government introduced Growth Enhancement scheme (GES) which is designed to deliver government subsidized farm inputs, especially fertilizer and hybrid rice seeds, directly to registered farmers.

This programme, among other things has objectives of providing affordable agricultural inputs like fertilizer, hybrid seeds and agro-chemical, removing complexities with fertilizer distribution and enhancing farmer's income and promotes food security. Against this background information, this research is set out to examine economic effect of Growth Enhancement Scheme (GES) among the Ofada rice producing farmers with

these objectives; to describe the socio-economic characteristics of farmers, comparing the level of gross margin of rice farmers who benefited from GES with those who are without the scheme and identify the constraint faced by GES rice farmers.

METHODOLOGY

The study was conducted at Obafemi Owode local Government Area, located on longitude 3.4095^o and latitude 6.8801^o, Ogun state Nigeria. It has a land mass area of about 104,787.07ha of Agricultural land. The Local Government is located in the tropical rain forest zone with two distinct seasons, the wet and dry seasons and endowed with vast fertile land suitable for the cultivation of arable, tree crops and variety of vegetables. The study area is bounded in the North by Odeda Local Government (L.G.) and Oyo state, in the south by Ifo and Sagamu L.G. in the west by Ewekoro and Abeokuta south Local Government and in the East by Remo North and Ikenne L. G. This area is cohabitated by Yoruba, Igbo and Hausas.

DATA COLLECTION AND SAMPLING PROCEDURE AND ANALYTICAL TECHNIQUES

Primary data were collected using interview schedule and questionnaires and thereafter useful information elicited for the analysis of this study. Purposive sampling techniques was used to select ofada rice farmers that are beneficiary and non-beneficiary in the study area, but in the course of data collection it was made known that almost all rice farmers in the area benefited, the opportunity cost of the GES programme was used for none-beneficiary. Data were collected from ninety-three (93) respondent to elicit useful information.

The data collected were subjected to descriptive statistics and gross margin analysis. Descriptive analysis of

data calculated parameters such as mean, frequency distribution, percentage, while gross margin analysis was used to describe the economic disparity between beneficiary and none-beneficiary.

Gross margin analysis:

$$GM = TR - TC$$

Where: GM = Gross margin

$$TR = \text{Total revenue} = \sum (Q_i \cdot P_i)$$

$$TC = \text{Total cost} = \sum (X_{ij} \cdot P_{ij})$$

RESULT AND DISCUSSION

The outcome of the analysis of socio-economic characteristics of ofada rice farmers is shown on table 1 below. It revealed that 34 years was the average and 6 years was the standard deviation of the respondents. This implied that rice production is mostly practiced by young and able body farmers. Also majority, about 72% of the Ofada rice producers were within the ages of 40 years. This confirms that the population of ofada farmers are very young and agile and has the strength to cope with rigor of production of ofada rice. It was revealed that about 66% were males, while the remaining 34% were female rice producers. This result collaborate Kensathasan (2012) that male are keener in rice production than females and also in line with cultural practices that males have to be productive economically to cater for their family in the study area.

The result also indicates that about 72% of the respondents were married. This implies that majority of ofada rice producers were married and ofada rice production is one of means of their livelihoods. The average family size of about 4 per respondent with standard deviation of 1, this means many of the respondents keep moderate family size.

The result on educational status of the respondents in the study area shows that larger population of ofada rice

producers had relatively low level of education. More than 80% have at most secondary school certificate. Therefore, there is need for concerted efforts of extension agents and other relevant agency to educate them; this will make it easier for the farmers to adopt new policy and enhance their acceptability of new innovations. The mean estimate of experience of ofada rice producers was about 12 years with standard deviation of 5 years. The result of their years of experience coupled with their mean of age provide evident that young people are now into ofada rice production, because is a lucrative business in the study area.

Further analysis indicated that about 61% of the respondents acquire their land by inheritance. This nature of their access to farm land, as an essential factor of rice production, could serve as impediment to large scale production due to continuous fragmentation among the family lineage.

This research work further examined the level of accessibility of GES inputs by ofada rice farmers and according to table 2, the output of the analysis revealed that all the respondents surveyed (100%) were aware of the scheme. This implies that farmers in the study area have access to agricultural information; including GES policy. The high level of awareness of these farmers prompted their registration; almost all (99%) registered and benefited from GES program in the area of study. These implied that GES program has really been adopted and may likely boost the level of ofada rice production in the study area.

The results also showed that 59% of the respondents got their planting materials (rice seeds) from previous harvest. This indicates that rice farmers have efficient storing seeds techniques and have really adopt GES programme. However, there were difficulties in the process of accessing the GES facilities as indicated by the majority of the respondents, more than 80% of the farmers had varying degree of difficulties in

accessing the GES inputs. Some of the challenges encountered include administrative bottleneck, distance barriers, and cost of transportation, extortion e.t.c.

GROSS MARGIN DISPARITY BETWEEN BENEFICIARY AND NON-BENEFICIARY OF RICE FARMERS PER HECTARE:

According to the cost and return analysis on table 3, the beneficiary farmers of GES received about 50% discount as subsidy on farm inputs (fertilizer and rice seeds) through GES program. This makes the basic difference between beneficiary and non- beneficiary farmers in this work. The assumption in this analysis is that the same set of input - output market was opened to the farmers without GES policy and equal quantities of inputs and output are assumed to be used and realised in their production.

The total variable cost incurred by an average GES farmer was about ₦ 151375 per ha. While non-GES farmers incurred about ₦ 164075 per ha and the amount of revenue realised per ha. was about ₦623556.70K. This accounted for difference in the gross margin of about ₦ 472181.70k per ha by average GES farmer and about ₦459481.70k per ha. by average non-GES farmer. Generally the gross margin derived from analysis of ofada rice farmers (beneficiary and non-beneficiary) shown that ofada rice production was profitable in the area. The difference in the gross margin of both group was about ₦12700 per ha. This amount was derived from GES inputs market aside the normal market margin. Therefore, on average an individual who benefited from the GES subsidy policy gained this amount (₦12700) as extra profit per hectare of rice cultivated. In conclusion, government at all levels should embark on similar policy to encourage more rice farmers, especially young graduates and unemployed youth. Programme of this nature will serve multiple purposes; increase rice output, reduce rice importation, reduce unemployment, increase income

level and reduce poverty, and eventually improve standard of living of both rice farmers and citizens at large.

SUMMARY, RECOMMENDATION AND CONCLUSION

The results revealed the present of young and agile age groups and success of GES programme was as results of awareness and access of rice farmers to agricultural information in the study area. However, the inputs were accessible with difficulties such as long distance to collection point, which makes most farmers to spend extra cost on transportation.

The return analysis and variable cost incurred by an average GES farmer was about ₦ 151375 per ha, while non-GES farmers incurred about ₦ 164075 per ha and the amount of revenue realised per ha was about ₦623556.70K. The gross margin of about ₦ 472181.70k per ha by average GES farmer compare with about ₦459481.70k per ha by average non-GES farmer. The difference in the gross margin of both group was about ₦12700 per ha. This amount was derived from GES inputs market aside the normal market margin.

Based on the findings of this research work, the following recommendations are made; more farm input facilities such as fertilizer, improved rice seeds and creation of more collection centre, closer to the farmers to reduce the amount spend on transportation. Also, government at all levels should embark on similar policy to encourage more rice farmers, especially young graduates and unemployed youth. Programme of this nature will generate multiplier effect; increase rice output, reduce unemployment, increase income level and reduce poverty, and eventually improve standard of living of both rice farmers and citizens at large.

Note:

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Authors' Contributions section

- a. Z.O: conceived the topic of the research , designed questionnaire and typing and general coordination
- b. S.A: Data cleaning and analysis.
- c. Result interpretation and discussion.
- d. T.O: supervision of administration of questionnaire
- e. L.O: Administration of questionnaire and data collection

* All authors read and approved the final manuscript.

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Table 1: Distribution of respondents by socio- economic characteristics

Age (Yrs)	Frequency	Percentage (%)	Mean	STD
<30	48	52		
31-40	19	20	34	6
41-50	11	12		
>51	15	16		
GENDER				
Male	61	66		
Female	32	34		
MARITAL STATUS				
Married	67	72		
Single	26	28		
HOUSEHOLD SIZE				
1-2	34	37		
2-4	20	21	4	1
5-6	39	42		
PRIMARY OCCUPATION				
Farming	75	81		
Trading	14	15		
Civil-service	4	4		
SECONDARY OCCUPATION				
Civil- service	6	7		
Art and crafting	2	2		
Trading	37	40		
Hunting	29	31		
Others	19	20		
YEARS SPENT SCHOOLING				
1-6 (primary)	50	54		
7-12(secondary)	30	32	7	1
13above (tertiary)	13	14		
FARMING EXPERIENCE (YEARS)				
5-10	43	46		
11-15	26	28	12	5
16-20	10	11		
21-25	14	15		
LAND OWNERSHIP				
Purchase	9	10		
Lease	23	25		
Inherited	57	61		
Rent	4	4		

Source: Field survey 2014

Table 2: Distribution of respondents by ease of accessibility of GES input

GES Accessibility Parameters	Frequency	Percentage (%)
ARE YOU AWARE OF GES		
Yes	93	100
ARE YOU A REGISTERED FARMER		
Yes	92	99
No	1	1
HAVE YOU BENEFITED FROM GES		
Yes	91	99
No	2	1
SOURCE OF RICE FOR PLANTING		
GES input	38	41
Previous harvest	55	59
HOW ACCESSIBLE ARE GES INPUT		
Easily accessible	4	4
Not accessible	10	11
Accessible with difficulty	77	85

Source: Field survey 2014

TABLE 3: Gross Margin Disparity between Beneficiary and Non-Beneficiary of Rice Farmers per Hectare

COST ITEMS	BENEFICIARY	NON-BENEFICIARY
Seed cost	10800	19200
Ploughing	16000	16000
Transportation	48000	48000
Fertilizer	5700	10000
Harvesting	4125	4125
Processing	1950	1950
Hired labour	64800	64800
Total Variable Cost	151375	164075
Revenue	623556.7	623556.7
Gross Margin	472181.7	459481.7
Disparity in Gross Margin		₦12700 per hectare