Growth Enhancement Support Scheme and the Livelihood of Rural Communities in Etche LGA, Rivers State

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Abstract

The study assessed the impact of Growth Enhancement support Scheme on the livelihood of rural communities in Etche local government area, Rivers state. The specific objectives were to determine the socio-economic characteristics of the rural communities; find out the contributions made by the Rivers State Government during the scheme; determine the impact of the scheme on the livelihoods of the rural communities and identify the constraints militating against the scheme in the study area. Primary data was used and collected with the aid of detailed and well-structured questionnaires and scheduled interview session. Multistage sampling technique was used to sample sixty farmers from six communities in the study area. Objective one was analysed using regression analysis, objective two and three were analysed using descriptive statistics while objective four was analysed using the four-point likert scale rating. The findings revealed that majority of the farmers in the rural communities were male and fall between the age range of thirty one and forty years. The farmers in the rural communities were mostly married. The income of the farmers increased annually by forty-two percent during the Scheme. Most of the farmers' sourced inputs from the open markets before the scheme while information about the program got to the farmers through friends and neighbours. The Likert scale results indicated that irregular supply of input, lack of capital, late delivery of input and high cost of inputs posed as constraints during the scheme. The study further showed that the government of Rivers state made little effort in providing grants and loans but this was greatly affected by bureaucratic bottlenecks. The test of significance tested showed that sex, age, primary occupation, farming experience and cooperative membership significantly affected the farmer's livelihood while marital status, household size and landownership were not significant. Based on the findings it is therefore suggested that the local government of Etche and the Rivers State government should further subsidize, increase and deliver inputs on time as well as using churches, schools and civic centres as redemption points as these have significant effect on the livelihood of the rural communities in the study area.

Keywords: *Enhancement, Bureaucratic bottle neck, Value added chain, Growth*

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Background to the Study

Growth enhancement support scheme (GESS) represents an agricultural policy flagged off by the Federal Ministry of Agriculture and Rural development (FMARD) since 2012 under the administration of Good luck Ebele Jonathan. It is a pragmatic shift within the fertilizer market stabilization programme and other inputs (FMARD, 2016). Series of incentives are put in place to encourage resource constrained farmers and critical actors in fertilizer value chain to work together to improve the livelihood of farmers which include improved productivity, house hold food security and the income of the farmer.

The growth enhancement support scheme is a federal government initiative to actualize the Agricultural transformation agenda (Tony, 2015). The objective of the agricultural transformation agenda is to increase on a sustainable basis, the income of small holder farmers and rural entrepreneurs that are engaged in production, processing, storage and marketing of selected commodity value chains.

The Growth Enhancement Scheme was designed to break the cycle of inefficient and ineffective fertilizer and seed support delivery to targeted beneficiaries. The aim was to target small holder farmers through subsidy, hi-tech delivery system mechanism in order to migrate farmers from subsistence farming to commercialized farming over a period of 4-10 years in order to promote competitiveness. It provides targeted support for seeds and fertilizer to 20 million farmers with a target of registering five million farmers within 4 consecutive years. The $2.5 billion programme is projected to generate an overall benefit/cost ratio of 16 to 1 (FMARD, 2013). Under the scheme, the federal government subsidized fertilizer by 25 per cent and the state governments are expected to add another 25 per cent subsidy so that farmers could purchase at N2,750 per bag instead of between N5,000(urea) and N6,000(NPK), which is the market price. Each farmer is to get two bags of fertilizer at the subsidized rate, along with a free bag of improved maize, cassava or rice.

Governments of developing countries have a major responsibility of ensuring there is rural adequate development in their various communities and local governments which lead to effective and efficient agricultural systems and a significant improvement in the livelihood of the rural farmers (CGIAR,1995)(word net search, 2013). According to Barrett and Reardon (2001) the livelihoods of most rural communities depends on a variety of activities they are involved in. The present administration became aware of this need and extended the growth enhancement support program agreement with Cellulant Nigeria limited with an improved system of delivery to continue to serve small holder farmers better (Cellulant Nigeria, 2016).

The Federal government's Growth Enhancement Support scheme, which seeks to bypass fraudulent middlemen in distributing subsidized fertilizer and other inputs to farmers, has largely eliminated the brazen fraud of the past but created new forms of corruption and is far from being efficient (Dayo and Habeeb, 2018).

The process is still largely inefficient such that the targeted millions of farmers do not get the subsidized inputs (which include fertilizer, vegetables seedlings and chemicals) at the

redemption centers as a result of slow rate of input delivery (ICiR, 2018) therefore; have to cut corners to get their share, in the end pay exorbitant prices of about 6000 naira per bag. Farmers are also not left out as they go ahead in duplicating the SMS alerts sent to them by forwarding the text message to friends who then attempt to redeem fertilizer (Tologbonse, 2013).

The first problem farmers have faced especially in Rivers State is systemic with the fault lying with the Federal Ministry of Agriculture. Several millions of farmers who were registered in 2012 and 2013 have not been captured in the national farmers' database and so could not have benefitted from the programme (Akinbolawa, 2012). Farmer's livelihood is greatly affected as inputs are delivered in small quantities and behind schedule. This forces farmers to go to the open market to purchase these inputs at costly rates in order to meet up with the planting season (Daily Trust Newspaper Bulletin, 2018.

Objectives of the Study
The broad objective of this study was to assess the impact of Growth Enhancement Support Scheme on the livelihood of rural communities in Etche LGA, Rivers state.
Specifically, the purpose was to:
1. Determine the socio economic characteristics of rural communities in the study area;
2. Find out the contribution made by the Rivers State government in Growth Enhancement Support Scheme; and
3. Identify the constraints militating against Growth Enhancement Support Scheme in the study area.

Literature
Literature relevant to this study was reviewed under four sub-headings: Theoretical framework, Conceptual framework, Empirical framework and Evaluation of literatures reviewed.

Theoretical Review
Sustainable Livelihood Approach
The Sustainable Livelihoods framework SL thinking is inspired by the work of Robert Chambers in the 1980s, and has been further developed by Chambers, Conway and others in the 1990s (DFID, 2000). The SL framework is a tool for development work, by highlighting how to understand, analyze and describe the main factors that affect the livelihoods of the poor people. DFID (2000) states that; "A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks maintain or enhance its capabilities and assets, while not undermining the natural resource base." The first basic principle is that development work has to focus on people meaning that we have to focus on what matters for the poor, how people and their cultures are different, and how this affects the way they understand and appreciate livelihoods.

Conceptual Framework
Agricultural schemes in Nigeria
Some specialized Agricultural schemes initiated in the past include: Farm Settlement Schemes and National Accelerated Food Production Programme (NAFPP) launched in 1972. There

were also a number of agricultural development intervention experiments, notably Operation Feed the Nation, launched in 1976, River Basin and Rural Development Authorities, Green Revolution Programme, inaugurated in 1980, The World Bank-funded Agricultural Development Projects (ADP). While each of the above programmers' sought to improve agricultural productivity, the ADPs represented the major practical demonstration of the integrated approach to agricultural development in Nigeria. In an attempt to address the dwindling resources accrued from Agriculture, successive government implemented programs/schemes aimed at increasing food production, improving farmer's welfare and reviving Agriculture. These are:

National Accelerated Food Production Programme (NAFPP), Operation Feed the Nation (OFN), the River Basin Development Authority (RBDA, The Nigerian Agricultural Land Development Authority (NALDA), National Fadama Development Project (NFDP) and Root and Tuber Expansion Programme (RTEP) (FMARD, 2017). Several public policy, project design, and institutional issues influenced project outcomes and offer lessons for future projects of this type (Jimoh et al, 2015).

Present Day Schemes Implemented by the Federal Government
Agricultural Transformation Agenda
In 2011 the government of Nigeria, launched the Agricultural Transformation Agenda, with the aim of changing the perception about agriculture as a development issue instead of pure business.

The vision in the transformation strategy is to achieve a hunger-free Nigeria through an agricultural sector that drives income growth, accelerates achievement of food and nutritional security, generates employment and transforms Nigeria into a leading player in global food markets to grow wealth for millions of farmers (Grow Africa, 2014). In order to achieve this vision, the value chain approach has been in use. Fertilizer procurement and distribution, marketing institutions, financial value chains and agricultural investment framework are poised for a change using this approach.

Empirical Literature
Studies concerning Growth Enhancement support Scheme which has focus on livelihood of farmers. The findings from these empirical investigations have been mixed as evidences from around Nigeria:

Sidi (2018) examined the level of accessibility to Growth Enhancement support Scheme inputs among the dry season rice farmers in Sokoto State. Two hundred and fifty registered Growth Enhancement support Scheme farmers were randomly selected and data was collected using a structured questionnaire. Descriptive statistical tools were used to analyze the data. The result revealed that majority of the farmers fell between 30- 39 years, and 93.6% were married. With regards to farmers levels of education, majority had Qur'anic education. Based on the findings, majority of the farmers have access to fertilizer, improved seed and agro-chemical. Majority of the farmers attributed registration with Growth Enhancement Support Scheme

programme as the major factor that determines access to its package. The identified key constraints to registered Growth Enhancement Support Scheme farmers were untimely supply of inputs, inadequate production inputs and manipulation of Growth Enhancement Support Scheme register by agro-dealers. Therefore, for effective and sustainable GESS programme there is need for timely and adequate distribution of Growth Enhancement Support Scheme inputs and register should not be tempered with.

Kemisola, *et al*. (2018) assessed the Impact of the Growth Enhancement Support Scheme (GESS) on farmers' Farm income in Oyo State, Nigeria. A multistage sampling technique was adopted to select a representative sample for the study. Majority of the participants were male. The mean age of the respondents in the study is about 50yrs. Majority of the respondents sourced their farm inputs through the agro-dealers. The Probit regression model was used to examine the factors that influenced the farmers' participation in the Growth Enhancement Support Scheme.

The results show that farmers association, Participation in past programme and access to credit were statistically significant at 1%, and 10% level of significance respectively in influencing the farmers' decision in participating in the Growth Enhancement Support Scheme. The marginal effect shows that the probability of participating in the Growth Enhancement Support Scheme by a farmer as reduced by 34.5 percent if the farmer was a member of farmers' association, this was quite against the a priori expectation of the study. Also, the results from the Propensity Score Matching (PSM) analysis reveal that the Impact of the Growth Enhancement Support Scheme exerts a positive impact on the farmers' on-farm income. While the ATE estimates from the PSM analysis suggests that Growth Enhancement Support Scheme participation increased the farmers' on-farm income by N119, 927.05 ($399.98). This indicates the average change in farmers' income who participated in the Scheme.

Materials and Methods

Etche communities is mostly engaged in agriculture notably cassava, plantain, banana and yam are the most important crops. The study area is Etche local government area of Rivers State. It is one of the major ethnic groups in Rivers state. Etche lies approximately between latitudes $4^0 59'27'7^0 03'16'E$ and longitude 4.990833^0 N 7.054444^0E of the Greenwich meridian (Wikipedia 2018). Etche communities include Akwu/Obuor, Chokocho, Chokota Egwi, Afara, Mba, Ikweregwo, Okehi, Okomoko, Ulakwo, Umuakonu, Umuebulu, Umuchem, Egbeke, Igbodo. The Etche's believe Igbodo to be their ancestral home. According to 2006 national population census, the local government has a total of 249,939 people comprising of 127,869 males and 122,070 females (National Population Commission, 2006).

Multistage sampling was used to reduce sample error and the cost of reaching every farmer in the local government. This involved:
Six (6) communities were selected; ten farmers were selected randomly from each community, making a total of 60 respondents.

Primary data was used for the analysis. The primary data were collected with the aid of detailed and well structured questionnaire administered to the selected rural farmers and was complemented by scheduled interview. The questionnaire was designed to capture information on socio-economic data like age, sex, primary occupation, farming experience, house hold size, income; size of land holding etc. in the study, objective (i) was achieved using ordinary least square (OLS) analysis, Objective (ii) was realized using descriptive statistics such as frequency and table while objective (iii) was achieved using likert scale ratings on a 4-point scale.

Regression Model
The regression model is expressed as:

$$Y = f(X_1, X_2, X_3 \ldots\ldots X_n)$$

The linear form is

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + \ldots\ldots b_n X_n + e$$

And the double log form is:

$$\text{Log } Y = b_0 + b_1 \log X_1 + b_2 \log X_2 + b_3 \log X_3 + bn \log X_n + e$$

Where,

Y = Rural farmers livelihood

b_0 = intercept

b_1-b_n = coefficient

X_1-X_9 = the independent variables (Sex, Marital status, Age, House hold size, Education, Primary Education, Farming experience, Land ownership and cooperative membership)

e = error term.

Likert Scale Rating
The descriptive tools of statistics such as tables, frequencies, percentages were used to achieve objectives (i) and (ii). Objective (iii) was attained using likert scale rating technique on 4-point basis. The 4-point rating will normally force a choice on the respondents since there is no midpoint to make them indifferent. The grading was in this order: strongly agreed (SA) = 4, Agreed (A) = 3, Disagreed (D) = 2, and strongly disagreed (SD) =1. The mean score of the respondents based on the 4-point scale was 4+3+2+1=10. 10/4=2.50. Using the interval scale of 0.05, the upper limit cut off point was 2.50+0.05=2.55. The lower limit was 2.50-0.05=2.45. Based on these, the mean score below 2.45 (i.e. MS<2.45) was regarded not important. Those between 2.45 and 2.55 were considered as important (i.e. 2.45<MS < 2.55). Mean score greater than 2.55 (MS>2.55) will however be considered very important.

Results and Discussion
The Regression model was used to determine the socio-economic characteristics of the rural farmers which is the first objective of the study. The results are presented on the table 1.0

Table 1: Regression Results showing the Effects of Socioeconomic Characteristics on the Livelihood of the Respondents

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-2.238	1.541		-1.452	.153
	Sex	1.619	.563	.468	2.877	.006
	Marital Status	.308	.358	.141	.862	.393
	Age	.196	.028	.105	7.005	.000
	Household size	-.063	.032	-.030	-1.986	.843
	Education	.889	.150	.246	5.928	.001
	Primary occupation	.351	.120	.240	2.919	.009
	Farming Experience	.095	.035	.043	2.676	.009
	Land ownership	-.148	.185	-.097	-.802	.427
	Cooperative membership	.582	.038	.179	15.263	.000

[a.] Dependent Variable: Livelihood of the rural communities

Table 1 show that the Pearson's correlation coefficient is 0.891. This correlation coefficient is high indicating that a strong relationship exists between livelihood of the respondents and socioeconomic characteristics. The Coefficient of Determination (R^2) = 0.751. This implies that a 75.1% variation in livelihood of the respondents is explained by variations in socioeconomic characteristics. The remaining 24.9% is explained by other variables not included in the model. The F-calculated of 18.6 had a corresponding significant F-value of 0.000; the researcher therefore concludes a good model utility. Conventionally F-cal = 18.6> F-tab $_{(0.05, 9, 50)}$ = 7.313 hence the above conclusion is upheld. The test of significance conducted as shown in the same table therefore concludes that "Sex, age, education, primary occupation, farming experience and cooperative membership significantly affected the livelihood of the respondents; however, marital status, household size, and land ownership were not significant".

Contribution of Rivers State Government to Growth Enhancement Support Scheme

To capture objective two this study suggests the use of descriptive statistics in the form of frequencies and percentages. The analysis is illustrated below

Table 2: Contribution of Rivers State Government to Growth Enhancement Support Scheme

S/N	Contribution of Rivers State Government	Percentage%
1.	Training /Awareness	41.7
2.	Increase in Quantity of inputs	11.7
3.	Water Supply	25
4.	Accessibility to Redemption Centers	20
5.	Increase in redemption Centers	13.3
6.	Provision of Storage facilities	16.7
7	Addition of other value added Chains	8.33
8	Provision of grants/loans	53.3

Source: Field Survey Data, 2018.

The table above revealed that the Rivers State government is making effort in providing grants and loans at 53.3% but this is greatly disturbed by bureaucratic bottlenecks and corruption cited from the problem. However, the government of Rivers State made effort in increasing the quantity of inputs (11.7%) supply adequate water, (25%), increase redemption centers (13.3%), provision of storage facilities (16.7%) and addition of other value added chains (8.33%).

Constraints of Growth Enhancement Support Scheme to the Rural Farmers in the Study Area

To capture objective three, Likert scale rating on a 4-point basis is suggested.

Table 3: Constraints of Growth Enhancement Support Scheme to the Rural Farmers in the Study Area (n=60)

S/N	Constraints	Sum	Mean	Remark
I	High price of Inputs	208	3.47	A
Ii	High cost of Transportation	184	3.07	A
Iii	Lack of Phone	120	2.00	D
Iv	Poor network	177	2.95	A
v	Inadequate redemption period	176	2.93	A
vi	Inadequate trainings/awareness	161	2.68	A
vii	Irregular supply of input	181	3.02	A
viii	Inadequate supply of input	199	3.32	A
ix	Late delivery of inputs	177	2.95	A
	Grand mean		2.93	A

Source: Field Survey Data, 2018.

Table 3 Showed that high price of inputs (Mean score = 3.47> 2.5) was a major constraint of Growth Enhancement Support Scheme while inadequate supply of input (Mean score = 3.32 > 2.5) was second. The table further revealed that poor network (Mean score = 2.95 > 2.5), inadequate redemption period (Mean score = 2.93 > 2.5), irregular water supply (Mean score = 3.02 > 2.5), Late delivery of inputs (Mean score = 2.95> 2.5), Inadequate trainings/awareness

(Mean score = 2.68 > 2.5), High cost of Transportation (Mean score = 3.07 > 2.5) and were factors affecting Growth Enhancement Support Scheme in the study area. Lack of phones were however not identified as constraint (Mean score = 2.00 < 2.5) (ICiR, 2018).

Conclusion

The study was set to assess the impact of Growth Enhancement Support Scheme on the livelihood of the rural communities in Etche Local Government Area, Rivers State. The study therefore concludes that a greater percentage of the livelihoods of the rural communities are greatly affected by their sex, age, education, primary occupation and farming experience while marital status, household size and land ownership have no effect on their livelihood. The study also concluded that the Rivers State Government contributed majorly in provision of grants and loans but this was greatly disturbed by Agricultural bottlenecks and corruption. During the scheme, the farmers experienced improved productivity, increased income and increase in household food supply. Finally, cost of inputs was seen to be a major constraint followed by inadequate supply of inputs.

Recommendations

In order to facilitate the efficient operation of growth enhancement support scheme in the study area, immediate action would be required in the following areas:

1. Appropriate measures should be put in place by the Rivers State government and the Local Government such as subsidizing the inputs, providing inputs in smaller packages, increasing the quantity of inputs delivered to the farmers, subsidizing mobile phones, providing storage facilities, adding more input to the value chain and provide transport facilities.

2. Government should ensure creation of more redemption centers such as using civic centers, schools and churches in each community in order to reduce the cost of transportation.

3. Government should create awareness; dissemination means to reach farmers especially on registration processes.

4. Trainings should be organized from time to time to educate farmers on how to effectively use inputs provided by the Government. Telecommunication providers are encouraged to site more mast to increase the network band in the study area.

5. The Rivers State government should reduce to the barest minimum, the bottlenecks and bureaucracy experienced in input delivery.

Having carried out this study, it is recommended that Growth Enhancement Support Scheme be continued each year.

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