THE IMPACT OF SELECTED GOVERNMENT AGRICULTURAL DEVELOPMENT PROGRAMMES ON RURAL INCOME IN RIVERS STATE

NJOKU KEVIN, PhD.
Department of General Studies
Ken Saro-Wiwa Polytechnic, Bori

COOKEY SUNNY C.M.
Department of General Studies
Ken Saro-Wiwa Polytechnic, Bori

TURAKPE MORRISON J., PhD.
Department of Banking and Finance
Ken Saro-Wiwa Polytechnic, Bori

And

NJOKU STANLEY C.
Department of Management
Rivers State University
Port Harcourt

Abstract

This study investigated the impact of selected government agricultural development programmes on rural income in Rivers State. The programmes include the School- To-Land Programme (STLP), Root and Tuber Expansion Programme (RTEP) and National Programme for Food Security (NPFS). The population for the study was 558 farmers, made up of 408 beneficiary farmers and 150 non beneficiary farmers of the above programmes. A multi-stage stratified random sampling technique was employed in the selection of 202 samples from the participating farmers while the cluster sampling technique was adopted to obtain a sample size of 109 respondents from the non-participating group. The instrument for data collection was a well-structured and validated 19 item-questionnaire. Descriptive statistics were used to analyze the data on socio-economic demographic characteristics of respondents while the t-statistics was used to test the hypothesis at 0.05 percent level of significance. The findings revealed that the non-participating farmers performed better than the participating farmers of the programmes. We therefore concluded that the government agricultural development programme did not impact significantly on the income of the rural farmer in Rivers State. Based on the findings, the study recommended among others that the beneficiaries of the programme should be directly involved in the design, planning and implementation of the programme. And there should be adequate and sustained funding of programme.

Keywords: Government Agricultural Development, Rural income and School to land Programme.

Introduction

In developing countries like Nigeria a larger proportion of the population live in the rural areas and depend entirely on agriculture for survival and income generation. The income in these areas are low hence the rural population remain poor.

According to Cookey and Ohale (2005), the Nigerian agricultural sector is dominated by not just the poor but the poorest of the poor. These are the high risk individuals or groups that are predominantly illiterates.

The description of Nigeria as a paradox by the world Bank (1996) has continued to be confirmed by events and official statistics in the country. For the fact that the poverty level in Nigeria contradicts the country's enormous resources, hence it is seen as a paradox.

It is quite obvious that the immediate and sustainable solution to Nigeria's poverty situation can be found in agriculture. Nigeria being the most populous black nation, endowed with a huge expanse of fertile land. With a population of about 200 million people, agriculture is seen as the most important sector of the economy. Apart from providing food for the teaming population, the sector employs a greater percentage of the population, a major source of raw materials for our industries as well as a source of income to the farmer.

However, over the years this all important sector has witnessed a continuous decline in its contributions to national growth despite huge sums of money allocated to the sector. This decline is attributed to the boom in the petroleum sector and the growth of the industrial sector. These factors have contributed to the mass exodus of able-bodied youths from the rural areas. Consequently, the percentage of the economically active population involved in agriculture had dropped tremendously in the late 1990's. The result been Nigeria becoming an increasingly urbanized society , with the urban population growing from 11 percent of the total population in 1952 to 46 percent in 2002 (DFID, 2004).

In 2001, the Food and Agricultural Organization (FAO) survey revealed that there is wide spread hunger and malnutrition in Nigeria as a result of poverty, household food insecurity and that about 40 percent of the population live without access to good source of water (Nmehielle, 2007). In view of these challenges the federal government in collaboration with the FAO embarked on agricultural development projects and policies aimed at addressing the pervasive poverty and sustainable food security through agricultural and rural development. With these programmes and policies, poverty and prices of basic food items are on the increase in Nigeria. This situation raises questions as to what extent the world bank assisted agricultural development programme has addressed the problems of poverty and food insecurity in Nigeria.

Theoretical Framework and Literature Review

Understanding the relationship between agriculture and farmers* income is worth giving consideration as it gives a better understanding of the poverty situation in the country.

Theoretically, there are several explanations relating to agriculture and rural income. However, this study centres on the vicious circle theory. This is a theory of the less developed countries propounded by Nurkse in 1953. Accordingly, the main thrust of the vicious circle theory is that "Poverty breeds poverty, a community, region or country is poor because it is poor". According to Nurkse in Jhingan (1997), it is the Vicious Circle of Poverty (VCP) that is responsible for the back-wardness of the Less Developed Countries (LDC's). He defines the vicious cycle of poverty in the following words. "Vicious circle implies a circular constellation of forces tending to act and react upon one another in such a way as to keep a poor country in a state of poverty".

From the perspective of an individual, a poor man with low income is underfed, being underfed he is under-nourished and easily exposed to sickness and diseases (physical

weakness). Being physically weak, his working and earning capacity is low, which means he is poor. Therefore an individual trapped in this vicious circle lacks the basic means of livelihood to break out of poverty, hence he remains poor. Like the individual an economy or a country can be trapped in a vicious circle of poverty. The vicious circle assumes that the greatest obstacle to the development of the less developed countries is poverty. Since these countries are poor, their ability to save is low, the low savings results to low investment which means low productivity etc. this circle therefore reinforces to perpetuate poverty and underdevelopment. By implication, the total productivity in the less developed countries is low due to deficiency of capital, market imperfection, economic backwardness and underdevelopment.

However, the vicious circles of poverty can be explained from the demand side of capital. Looking at the vicious circle from the demand side, low level of real income leads to low demand which in turn leads to low rate of investment, capital deficiency, low productivity and back to low income.

However, the theory of vicious circles of poverty has been declared defective in that the variables implied in it are not important determinants of development.

The Vicious Circle model has a considerable relevance for the reduction of poverty level and enhancing household income earning potentials in the less developed countries. It therefore gives part of the explanation for the high level of poverty in the developing countries; incomes in the rural areas of the LDC's are low, hence rural population remains poor. To ameliorate this ugly situation agriculture is the only veritable tool to reduce poverty level and/thus enhances economic growth, since it has direct impact on the rural income.

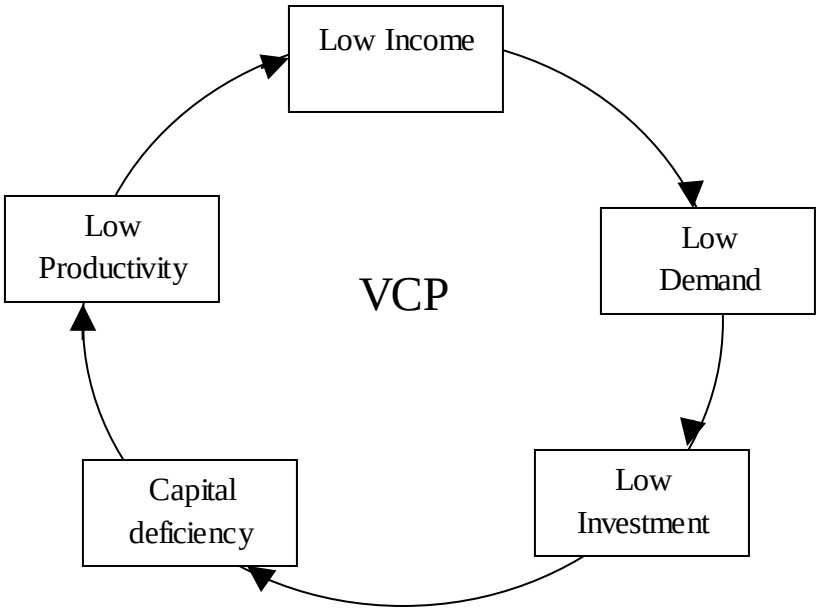

Fig. 2.1: Vicious Circles of Poverty (VCP)

Selected Government Agricultural Development Programmes

In the past, the Rivers State government has implemented several agricultural programmes and policies aimed at strengthening the agricultural sector and enhancing rural development, some of these programmes as considered in this study include;

1. School – To - Land Programme (STLP):

The school – to – land programme was one of the measures taken by the Rivers State Government in response to the crises of food supply and the rising trend of unemployment amongst the youths in the State. According to Tamuno (2009), "the School – to – Land Programme was conceived in an attempt to produce a new breed of farmers who would take up agriculture as a career, train and utilize young school leavers who are interested in forging a career in farming"

The school – to – Land Programme was established by the "School – to – Land Authority Edict, No. 4 of 1985" by the Rivers State Government and came into effect the same year.
The edict outlined the objectives of the Authority as follows;

- To train the young school leavers of Rivers State origin in Modern Agricultural practices.
- To encourage the young school leavers to take Agriculture as a viable profession.
- Train the young farmers in the processing of grains.
- To enhance the production of food crops and livestock for local consumption.

The edict further specified the functions of the School–to–Land Authority to include;

i. To fortify young school leavers with the basic knowledge, skills, and attitudes that will enable them to operate functional farm units including livestock's, poultry or mixed farm units or to carry on fishing enterprises.
ii. To train young school leavers in the basic concept of Agricultural production including livestock and poultry production and fish production in order to equip them with the capabilities to operate small crop, livestock, poultry or fish production as the case may be.
iii. To give young school leavers intensive training including in-service training in basic skills or fish production.
iv. To acquaint young school leavers with the various sources of agricultural inputs as well as subsidized services.
v. Upon completion of the training programme, to allocate land and other farm inputs to the young school leavers to enable them get established.

The Authority operated ten farms covering an area of about 16, 129.5 hectares of Land. These farms were located in Bunu – Tai, Iriebe, Kpaa, Egbeke/Nwuba, Bori New Town, Agbeta, Okadia, Ogbia, Sagbama and Buguma, while the major crops grown in these farms include maize, cassava, yam, melon, ogbono, vegetable, pineapples, sweet potato, plantain etc. (Tamuno, 2009).

However, the project presently has three existing farm locations at Rumuodomaya, Kpaa and Bori New Town (Wiiyaakara) covering about 805 hectares of land. While the Rivers State sustainable Development Agency (RSSDA) acquired Bunu Tai and Egbeke/Nwuba farms in the year 2008. And the head office of the Authority has been relocated from No. 35 Port Harcourt Aba road to ADP farm at Rumuodomaya in Obio/Akpor Local Government Area (ADP, 2009).

2. Root and Tuber Expansion Programme (RTEP)

The Root and Tuber Expansion Programme (RTEP) started as a follow–up Programme to the Cassava Multiplication Programme (CMP), implemented between 1987 and 1997. It is to consolidate the gains made under the CMP in order to enhance national food self-sufficiency and improve rural household food security and income for poor farmers within the country. The

CMP was faced with the challenges of poor storage and processing technologies as well as limited product utilization and marketing opportunities.

However, in order to meet these challenges, the Root and Tuber Expansion programme (RTEP) was formulated by the Food and Agricultural Organization (FAO) investment centre in 1995, appraised by the World Bank and negotiated by the international Fund for Agricultural Development (IFAD) Executive Board in 1999, Launched in December 2000 and declared Loan effective in July 2001 and disbursement effective by June 2002, while the first deposit for project implementation was made by IFAD in 2003 (RTEP project completion Report, 2009).

The programme covered up to 25 States which fall in the roots and tubers-growing belt, namely: Abia, Akwa Ibom, Anambra, Bayelsa, Benue, Cross River, Delta, Ebonyi, Edo, Ekiti, Enugu, Kaduna, Kogi, Kwara, Imo, Lagos, Nasarawa, Niger, Ogun, Ondo, Osun, Oyo, Plateau, Rivers, Taraba and the Federal Capital Territory. The total rural population of these states is about 35 million while the target group is about 5.2 million smallholders, with less than 2 hectares of land per household in the Southern and middle-Belt states of Nigeria. The main agro-ecological zones and their respective rainfall are; Forest zone (minimum 1,750 mm), Derived Savannah zone (1,250–1,750) and Southern Guinea zone (1,200 – 1,400 mm), RTEP Appraisal report (1999).

Yam, Cassava, Cocoyam and Potato crops feature very prominently in the farming system of the RTEP zones. All the farm facilities in the RTEP zone produce yam, cassava, and potatoes primarily for food and cash. Cassava and yam processing with traditional methods is widespread in the RTEP regions. Yam is processed into Yam flour while Cassava is processed into different products such as Garri, Cassava chips, Flour etc.

Thus, all the RTEP commodities provide tremendous opportunities for rural agro-industrial development and enhancement in income through agro-processing value addition and market development, as a result of the above mentioned, Cassava, Yam, Potatoes and Cocoyam were made the mandate crops of RTEP.

However the major objectives of RTEP is to significantly improve food security, income and livelihoods of the rural poor through improved root and tuber crops production, processing and marketing. And the philosophy is that the production of root and tuber crops will be viable and sustainable if all the activities in the root and tuber commodity value chains are based on the concept of market driven technology transfer and commercialization.

According to RTEP Appraisal report (2009), the strategic framework of RTEP consists of the following main components;

i. Diversification of improved Roots and Tuber production Technologies.
ii. Multiplication and distribution of improved varieties of seed / planting materials.
iii. Improved adaptive Research and Extension.
iv. Diversification of processing options and products, as a basic for market expansion.
v. Programme Management and Evaluation.

RTEP Institutional Arrangements

RTEP is a complex programme involving co-operative action of international, national and state partners.

In hierarchical order, the three lead organizations are;

- The International Fund for Agricultural Development (IFAD)

- The Federal Government of Nigeria (FGN)
- The State Government (SGs)

IFAD is the Lender", the FGN the principal "Borrower" and SGs the Secondary Borrowers. IFAD is represented by the World Bank who supervises the Loan disbursement and implementation of RTEP. The FGN nominated the Federal Ministry of Agriculture and Rural Development (FMARD) as the "Lead Agency" and the Federal Ministry of Agriculture as the "Implementing Agency".

At the State level, the State Ministry of Agriculture is the principal agency that oversees the ADP, which is the "State Implementing Agency".

There are several Federal Government and State Government Institutions responsible for the implementation of the RTEP. These are referred to as the "Project Party" in the loan agreement. Some of the Federal Agencies involved in the RTEP implementation include;

- The Root and Tuber Expansion Programme Management Unit (RTEP-MU)
- Agro-Industrial Development Units (AIDU)
- Federal Agro-processing and market Expansion group (FAMEG).
- National Root Crops Research Institute (NRCRI)
- National Cereals Research Institute (NCRI)
- Institute for Agricultural Research and Training (IART)
- National Root Crop Centre (NRCC)
- National Stored Products Research Institute (NSPRT)

The State Agencies involved in each of the States is the Agricultural Development Project Management Unit (ADP-MU) Containing State Agro-processing and market Expansion Group (SAMEG). While the technical support was provided by International Institute for Tropical Agriculture (IITA). In addition other organizations involved in the implementation of the RTEP include Local and International Non-governmental organizations (NGO'S), University Faculties, Consulting Firms etc.

In line with the RTEP Work-plans Community Self-monitoring activities were carried out during the period with the objective of monitoring development at the community level where RTEP activities are being implemented to ensure involvement of beneficiaries in Project assessment, problem identification, help in proffering solutions and participation in RTEP programmes.

Challenges stemming from irregular payment of Counterpart funding, mobility to monitor and supervise sites, incidence of Militancy/Cultism, late release of annual budget etc were encountered.

In Rivers State, Root and Tuber Farmers have been inhibited by a number of factors, among these are lack of funds, lack of access to research findings, appropriate agricultural inputs, knowledge of modern methods of intensive cropping etc. the payment of the RTEP Counterpart funds by the State Government in 2007, 2008 and 2009 added a renewed Vigour to the project, with the State ADP providing the technical Support (Rivers State ADP, 2009). The Rivers State ADP established a linkage with other agencies such as the Niger Delta Development Commission (NDDC), International Institute for Tropical Agriculture (IITA), RIVSEEDS, NAPEP, and the Rivers State Sustainable Development Agency (RSSDA) etc. the RTEP farms are established under Corporative associations. A total of 25 benefiting groups are selected in 5

Local Government Areas and 17 processing Centres. The benefiting Local Government Areas are Gokana, Asari-Toru, Emohua, Khana and Etche (RTEP project completion report, 2009).

3. National Programme for Food Security (NPFS)

The origin of the NPFS was derived from a follow up of earlier requests by the Federal Government of Nigeria to Food and Agricultural Organization (FOA) for assistance under the FAO'S Special Programme for Food Security to alleviate the problems of food insecurity and poverty amongst the rural households in Nigeria. The programme had the apex management in Project Coordinating Unit (PCU) of the Federal Ministry of Agriculture and Rural Development in Abuja while the Agricultural Development Programmes (ADPs) in the States constituted the implementation agencies at the state level.

The First (Pilot) phase of the programme was named "the National Special Programme for Food Security (NSPFS)". It took off effectively in August 2002 and was formally launched on March 8, 2003 by His Excellency, Chief Olusegun Obasanjo (GCFR) in Kaduna State (Nmehielle, 2007). The Pilot phase of the programme lasted for 3 years and covered three sites per State (one site from each senatorial zone). It was established to achieve the following long term objectives;

i. To Contribute to the Improvement of national food security by increasing food production on an economically and environmentally sustainable basis and
ii. To reduce year-to-year Variability in agricultural production and improve people's access to food.

After the pilot phase, the expansion phase took off in 2007 and lasted uptill 2012 (5 years) with the sites increased to nine and the word "Special" removed. This new project was initiated to sustain the development of smallholder agriculture and income generation in rural areas. The purpose of the NPFS 5-year expansion phase was the establishment of additional six sites in each of the 36 States and two in FCT, since increasing the sites would serve as platforms for development and outreach into communities not already covered by the project.

Since the major objective of the expansion phase of the NPFS is to improve National Food Security and reduce poverty on an economically and environmentally basis, other related objective include;

a. To improve household food security and income through increase in productivity, diversification and sustainable use of natural resources.
b. To enhance food security of consumers through improved access to and availability of food and also increase income of producers through more efficient marketing.
c. Enhance farmers and consumers access to support service such as extension, credit, nutrition, health etc.
d. To foster the participation of the poorer section of rural population in the development of the community.

The NPFS was a tripartite funded project. As part of the implementation strategy, the counterpart funding obligation was structured at 60% local contribution and 40% donor assistance. The 60% local contribution was further structured at the rate of 26%, 19% and 8% to the Federal, State, Local Government and beneficiary Communities. While the beneficiary contribution was mainly in kind, the State and Local Government Contributions were deducted at source.

However, the NPFS began 2002 in Rivers State with the objective of assisting farmers in achieving their potential for increasing output, productivity and income through empowering small and poor farmer communities to test and demonstrate potentially replicable production systems that respond to their needs for improved livelihoods and food security (NPFS, 2012).
The programme was implemented in three sites per senatorial district of rivers State, a total of nine sites were selected, (three at the pilot phase and six at the expansion phase), from nine Local Government Areas, within the three senatorial zones. These sites were selected based on the eligibility criteria for site selection in the project document and needs assessment survey.
Groups and Cooperatives were used as vehicle for implementation at the site level, thus farmers were organized into primary cooperatives and registered with the ministry of Commerce and industry for easy access to the fund.

The sites where the programme was implemented in the State include;

- RIVERS WEST SENATORIAL ZONE**:** Okobo in Abua/Odual LGA; Ihuaba/Idoke in Ahoada East LGA and Akabuka in Ogba/Egbema/Ndoni LGA.
- RIVERS EAST SENATORIAL DISTRICT: Atali/Elimgbu/Eneka in Obio/Akpor LGA, Opiro in Etche LGA and Rumuada in Emohua LGA.
- RIVERS SOUTH EAST SENATORIAL DISTRICT: Oyorokoto in Andoni LGA, Kpean/Baen in Khana LGA and Umuagbai in Oyigbo LGA.

Methodology

The study area

This study was conducted in Rivers State, Nigeria. Rivers state is one of the 36 states of Nigeria with three sensational districts namely; Rivers West, Rivers East and Rivers South East, and twenty three Local Government Areas.

Its capital is Port Harcourt. Rivers State was created in may 27th 1967, out of the then Eastern Nigeria. Until 1996 the present Bayelsa was part of Rivers State.

Rivers State is bounded on the North by Imo, Abia and Anambra States to the West by Bayelsa and Delta States, to the South by Atlantic Ocean and to the East by Akwa Ibom State. The state has a population of 5, 185, 400 (2006 Census data) making it the sixth most populous State in the Country.

The State has 23 Local Government Areas namely; Port Harcourt, Obio/Akpor, Okrika, Ogu-Bolo, Eleme, Tai, Gokana, Khana, Oyigbo, Opobo-Nkoro, Andoni, Bonny, Degema, Asari-Toru, Akuku-Toru, Abual-Odual, Ahoada East, Ahoada West, Ogba-Egbema-Ndoni, Emohua, Ikwerre, Etche and Omuma.

The State is located on Latitudes 4^0 45 N and Longitude 6^0 50 E of the Equator, and with a total Land Mass of 11, 077 Km^2. The State is situated in Mangrove Fresh Water Swamp and rainforest with average rainfall of 2500 to 3000 mm. In most cases, it is only in December and January that the state do experience a completely dry weather, during the year. Also high relative humidity is experienced all round the year.

Agriculture is the main occupation of Rivers People. The soil type is mainly sandy loam which tends to support root and tuber crops but highly susceptible to erosion. Arable crops such as yam, cocoyam, plantain, cassava, maize, vegetables are grown around the marshy areas, cash crops such as palm produce and rubber are grown in the upland areas, while fishing activities is predominant in the riverine areas. Similarly poultry and livestock are done as well.

However, the state is known for its large reserves of crude oil and natural gas. Rivers state accounts for over 40% of Nigeria's crude oil production (Rivers State Min. of Agriculture Report 2008) and the state has tourism potentials as well.

Rivers state is made up of multi-ethnic groups, the dominant among them include ;Ikwerre Opobo, Ibani, Ogoni, Ijaw, Engeni, Etche etc.

Population, Sample and Sampling Techniques

The population for this study was made up of 558 farmers which was composed of 408 beneficiary farmers under the school-to-land programme (STLP), Root and Tuber Expansion programme (RTEP) and National Programme for Food Security (NPFS) in the selected areas and 150 non beneficiary farmers.

A sample of 311 respondents were used for this study and the Taro Yamen formula was used to determine the appropriate sample size. The multi-stage stratified random sampling technique was used to select 202 participating formers (PFM), while the cluster sampling technique was used to select 109 from the non-participating farmers (NPF).

Sources and Instrument For Data Collection

Both primary and secondary data were employed. The primary sources provided raw data from the respondents for analysis while the secondary sources such as published books, journal articles and internet provided information for the literature.

The instrument used for data collection was the questionnaire. The questionnaire contains 19 items structured into two sections, A and B. While section A centred on the demographic and socio-economic characteristics of the respondents, section B was used to collect information on the subject matter.

Method of Data Analysis

This work used descriptive statistics and mean criterion to analyze the socio-economic and demographic characteristics of the respondents while the t-test was used to test the hypothesis at 0.05 percent level of significance.

Statement of Hypothesis

There is no significance difference in rural income between the participating farmers (PFM) and non-participating farmers (NPF) of the selected government agricultural development programmes in Rivers State.

Results and Discussion

Table 1: socio-economic and demographic profiles of the respondents.

Socio-economic profile	Participating farmers (PFM)		Non-participating farmers (NPF)	
	Frequency	Percentage	Frequency	Percentage
GENDER	-	-	-	-
Male	109	63.0	41	59.0
Female	64	37.0	29	41.0

Total	173	100	70	100
EDUCATIONAL LEVEL	-	-	-	-
Primary	58	33.5	8	11.4
Secondary	98	56.7	29	41.4
None	04	2.3	23	32.9
Total	173	100	70	100
AGE (YEARS)	-	-	-	-
20-29yrs	4	2.3	2	2.9
30-39yrs	94	54.4	18	25.7
40-49yrs	60	34.7	33	47.1
50-59yrs	12	6.9	10	14.3
60yrs and above	3	1.7	7	10.0
Total	173	100	70	100
FAMILY SIZE	-	-	-	-
0 – 4	34	19.7	21	30
5 – 9	124	71.7	44	62.9
10 and above	15	8.6	5	7.1
Total	173	100	70	100

Source: Computed from field data, 2019

Gender: The result showed that 63% of the participating farmers were male while 37% were female. For the non-participating farmers 59% were male while 41% were female. Male had more numbers for the both groups. Hence the result suggests that farming activities in Rivers State is dominated by male who are heads of households and breadwinners of their families.

Education: For the participating farmers 33.5% attended primary education, those who had secondary education were 56.7%, 7.5% had tertiary Education while 2.3% of the respondents were uneducated. On the other side. 11.4% of the non-participating farmers had primary education, 41.1% had secondary education while 14.3% of the non-participating had tertiary education and 32.9 were uneducated.

The secondary school category dominated the both groups showing that emphasis on these programmes was not educational level.

Age: For the participating group, 20-29 years of age 2.3%, 30-39 years were 54.4% while 34.7% of the respondents were between the ages of 40 and 49, 69% were between 50 and 59 years, and those above 60 years were 1.7%.

For the non-participating farmers, the result showed that 2.9% were between the ages of 20 and 29 years. 25.7% were between 30 and 39 years, 47.1% fell within 40 and 49 years, and 14.3% were between 50 and 59 years while only 10% were 60 years and above. The implication is that greater percentage of the both groups were within 30 and 50 years (active age).

Family Size: For the participating farmers, 19.7% had family size of 0-4 persons, 71.7% of the respondents had family size of 5-9 persons while those with 10 persons and above were 8.7%. for the non-participating group 30% had family size of 4 persons and below while 62.9% had 5 to 9 persons and just 7.1% had 10 persons and above. From the both groups those with family size of 5 to 9 persons dominated, by implication family members are good source of labour.

Test of Hypothesis

Table 2: Summary of t-test on the difference in the mean rural income between the PFM and NPF.

Project	Farmer	N	$\bar{X}$	SD	Df	t-cal.	t-crit.	Decision at p>.05
STLP	PFM	60	39016.67	19601.53	82	-1.570	1.960	**p=0.120**
	NPF	24	46458.33	19668.95				**NS, p>.05**
RTEP	PFM	59	42169.49	20221.32	77	-3.961	1.960	**p=0.00**
	NPF	20	63650.00	23068.03				**S, p<.05**
NPFS	PFM	54	48944.44	21136.94	78	-4.764	1.960	**p=0.00**
	NPF	26	73576.92	22733.54				**S, p<.05**
Overall	PFM	173	43376.68	20595.59	241	-5.919	1.960	**p=0.00**
	NPF	**70**	**61228.41**	**24448.48**				**S, p<.05**

Decision rule: *if p<.05 reject H_o, else retain H_o.* ***S****= Significant, p<.05*

NS*= Not Significant p>.05*

Source: *Computed from field data, 2019*

Results of tested hypothesis – (rural income generation)

Table 2 shows that there is a significant difference in the overall mean rural income (Naira) generation between the PFM and NPF of government agricultural projects in Rivers State ($t_{241,\ 0.025}$ = -5.919, p<.05). The overall mean ($\bar{X}$) difference of (₦17, 851.73) was in favour of non-participating farmers (NPF). Significant differences were also found in the mean income between the PFM and NPF of RTEP ($t_{77,\ 0.025}$ =2.66, p<.05) and NPFS ($t_{78,\ 0.025}$ = - 4.385, p<.05) projects respectively. However, there is no significant difference in the mean output between the PFM and NPF of STLP ($t_{82,\ 0.025}$ = -1.570, p>.05).

Conclusion and Recommendations

The need for appropriate policy framework to reduce the level of poverty and food insecurity in the rural areas is obvious. To this end, this work evaluated the impact of the government agricultural development programmes on rural income in Rivers State, with emphasis on the school-to-land programme (STLP), National programme for food security (NPFS) and Root and Tuber Expansion programme (RTEP).

The study revealed a significant difference in farm income between the participating farmers (PFM) and non participating farmers (NPF) with a mean difference of ₦17,851.75 in favour of the NPF. From our findings, the non participating farmers generated more income than their participating counterparts, we therefore conclude that the government agricultural programmes failed to improve the rural farmers income in Rivers State.

From the foregoing, the study recommends among others that

1. There should be increased beneficiary participation. That is, the programme beneficiaries should be directly involved in the design, planning and implementation.
2. There should be adequate and sustained funding of programme.
3. Non-governmental organizations (NGO's) and the private sector should be encouraged to participate in the implementation and funding of programme.
4. The programme management and activities should be completely devoid of politics.

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