

INFLUENCE OF AGRICULTURAL EXTENSION EDUCATION ON FOOD CROP PRODUCTION IN ETCHÉ LOCAL GOVERNMENT AREA OF RIVERS STATE

Harry A.T¹, and Ejiofor, C. O.²

¹Department of Agricultural Extension and Rural Development,

²Rivers State University, Port Harcourt, Nigeria.

***Author for Correspondence:** Email:harryariamebo@yahoo.com

ABSTRACT

The study accessed the influence of Agricultural Extension Education on food crop production in Etché Local Government Area of Rivers State, Nigeria. Specifically, the study was examined to: examine the socio-economics characteristics of the food crop farmers, identify the types of crop grown in the area, examine the influence of agricultural extension information sources, examine the influence of agricultural education on food crop practices and ascertain factors inhibiting agricultural extension education on food crops practices. 2 communities from the 5 clans in Etché Local Government Area (LGAs) were selected. A total of one hundred and Ten (110) respondents made up the sample size for the study. Questionnaire and interview schedule were the instrument used for data collection. Data collected were analyzed using frequency, percentage, chart, mean statistics and factor analysis. Socio-economic characteristics of the respondents were analyzed with view to knowing their sex composition, marital status, age and educational background findings revealed that 58% of the crop farmers are females, 41.8% were males. Mean age of crop farmers was 45.5 years, with majority in the age bracket of 41-50 years, 36.4% of the respondent were married. Majority of the respondents were educated and 63.6% were full time farmers while 36.4% were part time farmers. Majority (95.4%) of the respondents were Christians while only 4.5% were Pegans. Farmers engage mostly on subsistence farming which represents 92.7% followed by the commercial farmers 7.3%. Majority of the farmers engaged a lot on subsistence farming in the study area.

INTRODUCTION

Extension education is the dissemination of useful research changes in their social and cultural behavior, is the process of teaching rural people how to live better by learning ways that improve their farm, home and community institution (Leagans, 1961). Extension education is therefore an educational process directed to bring out change in people. It is a dynamic process which brings about changes in what people know, changes in how they react to situations and changes in what they can do with their hands. Extension education has not been known to be a powerful tool for shaping people's life and making life meaningful to the rural farmers. It stands to reasons that there exists a positive correlation between education and human survival (Ani, 2007). Therefore, extension education becomes a relevant tool for agricultural food crop production development process. Increased agricultural productivity depends primarily on the education of rural farmers to understand and accept the complex scientific changes which are difficult for the illiterate rural farmer to understand. Hence, we cannot increase the productivity of the rural farmer except through the provision of extension education (Onwubuya, 2005). Extension education scheme is designed to equip rural farmers for better productivity. It is the basis

for full promotion and improvement of the agricultural productivity of the rural farmers in order to increase food crop productivity and income from agriculture.

According to Ileubaoje (2004), agree that Agricultural extension has often been conceptualized as education process, which promotes learning. It uses the combined findings of biological sciences and the principles of social science to bring about changes in knowledge, skill attitude and practices and in and out of school setting. It was these perceived important roles of agricultural extension that informed the establishment of the agricultural development programme (ADPs). The agricultural extension agent in recent years has however played a significant role in improving agricultural production in Nigeria through advisory agent and adequate access to information on improved techniques of production ensuring the awareness and subsequent adoption of the contemporary methods of agricultural management. The extension agent operates from the back drop belief that increased agricultural productivity depends primary upon acceptance of improved cultural and technological change at the rural farm level and that peasant farmers can achieve improved production only if they adopt recommended scientific farming techniques. Successful adoption of improved agricultural practices is predicated upon rural farmer's acquiring the required knowledge and understanding of these technologies. This will improve productivity and raise the living standards of the farmers who are the beneficences of the agent. This study is necessary by the obvious fact that food is one of the basic necessities of life and agriculture is wholly and entirely concerned with the production, processing and distribution of food to man.

Statement of the problem

One of the major problems facing food crop production in Nigeria at large is illiteracy. This has over the years posed great challenges to Agricultural Development as well as productivity. The level of illiteracy of farmers in Nigeria generally affects agricultural practices especially in the rural areas. Extension and research works are more tedious with low level of literacy of farmers.

However, Igben and Ekpere (1988) highlighted the use of demonstration plots for imparting new technologies particularly to the illiterate farmers is accorded pride of place in the "methodology" of teaching farmers and that effective extension services in such a predominant society must be able to arrange several demonstration plots during the farming practices. The extension agent in their own part plays a vital role in the education of the farmers as they enlighten the local farmers on new techniques and innovation, research findings as well as providing services in terms of linking them with sources of inputs and credits, assisting in the organization of co-operatives and working with the rural youths and the farmers (Ekong 1988). It is therefore the objective of the study to assess the influence of extension education on food crop production and to establish whether the objectives set out by them in carrying out were achieved. The following questions may therefore be raised. What is the socio-economic characteristics of the food crop farmers? What type of crop grown in the study area? What are the sources of agricultural extension information that is available in the study area? What are the factors that influence agricultural education on food crop production? What are the constraints of agricultural extension education on food crop production?

Objective of the Study

The main objective of the study was to assess the influence of agricultural extension education on food crop production in Etche Local Government Area of Rivers State. The specific objectives of the study were to:

1. Examine the socio-economic characteristics of the food crop farmers;
2. Identify the types of crops grown in the area;
3. Examine the agricultural extension information sources;
4. Examine the influence of agricultural extension education on crop production; and
5. Ascertain factors inhibiting agricultural extension education on food crop production

RESEARCH METHODOLOGY

Etche Local Government is among the 23 local Governemtn Area in Rivers State Nigeria, named after the Etche (Echie) people south-south. They also inhabit Omuma L.G.A. Etche/Omuma is a National Assembly consistency. Etchecommunitis include Akwu/Obuor, Chokocho, Chokota, Egwi, Afara, Mba, Ikwerengwo, Okehi, Ulakwo, Umuakonu, Umuechem, Egbekeigbodo the ancestral home of Etche.

Patrick (1999), there were about 600,000 Etche people, forming the Fourth Largest ethnic group in Rivers State, mostly engaged in agriculture. Cassava and yam are important corps. The use of tractors for farming these crops has dropped slightly in the 1986-2004 period. The shell petroleum development company has funded a cassava processing mill at Umuakuru-Igbo people, and in 2004 provided training to local women in operation and management of the mill. Palm oil production by small holders is a significant part of the economy.

Sampling Procedure and Sample Size

The random sampling was used in selecting the respondents. Five (5) clans in Etche Local Government which includes' Ozuzu, Okehi, Ulakwo/Umuselem, Mba and Igbo were randomly selected for the purpose of the work. Two communities were chosen from each clan and 11 respondents (farmers were selected, making it a total of one hundred and ten (110) respondents.

Table 1: The Table Below Shows the Clans, Towns/Community and Number of Respondents Selected

| S/N | Name of Selected Clans | Names of Selected Towns or Communities | No. of Respondents |
|--------------|------------------------|--|--------------------|
| 1 | Ozuzu | EgbuIsu Isu | 11 11 |
| 2 | Okehi | Akwukabi Obi | 11 11 |
| 3 | Ulakwo/Umuselem | Odagwa Afara | 11 11 |
| 4 | Mba | Obite Ndashi | 11 11 |
| 5 | Igbo | Umechem Chokocho | 11 11 |
| Total | | 10 | 100 |

Source: Field Survey, 2017

Method of Data Collection

The sources of data were collected through primary source. The data were extracted from personal interview and use of structured questionnaire. The questionnaires were drawn up based on the objective of the study for the farmers in Etche Local Government Area.

Techniques for Data Analysis

The data collected was analyzed using the Likerttype scale method, descriptive statistics such as mean table, frequency and percentage to answer the research questions.

RESULTS AND DISCUSSION

Socio-Economic Characteristics of the Respondents

The result in Table 2 shows the various Socio-economic Characteristics of the Respondents in the Study Area

Table 2: Frequency Distribution of Respondents According to their Age, Sex, Marital status, Religion, Educational level, Nature of involvement in farming, farming system practiced, mode of land acquisition

| Variables | Frequency | (%) | Mean (\bar{x}) |
|--------------------------|------------|--------------|--------------------|
| Age range | | | |
| 21 – 30 | 20 | 18.2 | |
| 31 – 40 | 32 | 29.1 | |
| 41 – 50 | 42 | 38.2 | 45.5 years |
| 51 – 60 | 12 | 10.9 | |
| 61 and above | 4 | 3.6 | |
| Total | 110 | 100.0 | |
| Sex | | | |
| Female | 64 | 58.2 | |
| Male | 46 | 41.8 | |
| Total | 110 | 100.0 | |
| Marital status | | | |
| Married | 40 | 36.4 | |
| Single | 22 | 20.0 | |
| Widow/Widower | 18 | 16.4 | |
| Divorced/Separated | 30 | 27.3 | |
| Total | 84 | 100.0 | |
| Religion | | | |
| Christian | 105 | 95.4 | |
| Muslim | - | - | |
| Pegan | 5 | 4.5 | |
| Total | 84 | 100.0 | |
| Educational level | | | |
| Primary school | 46 | 41.8 | |
| Secondary school | 33 | 30.0 | |
| Diploma | 13 | 11.8 | |
| University graduate | 17 | 15.4 | |
| Total | 840 | 100.0 | |

| | | | |
|---|-----------|--------------|--|
| Nature of involvement in farming | | | |
| Full time | 70 | 63.6 | |
| Part time | 40 | 36.4 | |
| Total | 84 | 100.0 | |
| Farming system practiced | | | |
| Subsistence | 102 | 92.7 | |
| Commercial | 8 | 7.3 | |
| Total | 84 | 100.0 | |
| Mode of land acquisition | | | |
| Communally | 43 | 39.1 | |
| Inheritance | 31 | 28.2 | |
| Purchase | 22 | 20.0 | |
| Pledge | 14 | 12.7 | |
| Total | 84 | 100 | |

Source: Field Survey, 2017

Socio-Economic Characteristics

Age

Results in Table 2 shows that the mean age of crop farmers was 45.5 years, with majority in the age bracket of 41-50 years, agreeing Ekine et al. (2006) who also stated the more effective age of crop farmers in this area fall between 41-50 years. This entails that farming is mostly carried out by the elderly.

Sex

Table 2 shows that majority (58%) of the crop farmers are females while (41.8%) were males, this implies that males have less interest in crop farming or they have more economic engagements such as white collar jobs which seems to be more lucrative than crop production. Adewale et al. (2003) observed that gender is not hindrance to the active involvement in farming activities.

Marital Status

Table 2 shows that majority (36.4%) of the respondents were married while 20.0% are single followed by 27.3% who were divorced/separated. Only 16.4% who were widows/widowers. This revealed that majority (36.4%) of the farmers were married. Ugwoke et al. (2005) discovered in their finding that 53.0% of the respondents were either married or widowed. They noted that young people in rural areas get married earlier than their peers in urban areas.

Religion

Table 2 shows that majority (95.4%) of the respondents were Christians while only 4.5% were Pegans.

Education level

The result in Table 2 shows that majority of the respondents were literates with 41.8% of them having primary education while 30.0% had secondary education followed by 15.4%

with university certificate and only 11.8% with diploma. This implies that farmers in the study area had one form of education or the other. This agrees with the results of Ojukaiye (2001) who reported that education is an essential socio-economic factor that influences farmers' decision because of its effects on the awareness, perception, reception and quick adoption of innovation that can increase productivity.

Nature of Involvement in Farming

The result in Table 2 shows that majority (63.6%) of were full time farmers while 36.4% were part time farmers. This implies that majority of the farmers were fully devoted to their farming enterprise in order to achieve maximum results.

Farming System Practiced

The result in table 2 shows that the farmers in the study areas are mostly subsistence farmers which represent 92.7%, followed by the commercial farmers 7.3%. This indicates that there are a lot of subsistence farmers in the study area.

Mode of Land Acquisition

Table 2 shows the mode of acquisition of farmland by the respondents. Majority (39.1%) acquires their farmland communally, 28.2% acquire theirs through inheritance, 20.0% acquire theirs through purchase and 12.7% acquire theirs by pledge. This will lead to fragmented farm holding with most of them operating in small scale, which agrees with Oniah and Kuye, (2012), in their study stated that land are not given in plots rather they prefer to share the inherited land in lines with the kindred member which limit the literate farmers from adopting mechanized farming suchas tractors and heaps.

Table 3: Sources of agricultural extension information

Table 3 shows the types of crops grown in the study area

| Variables | Frequency | Percentage (%) |
|------------------|------------------|-----------------------|
| Maize | 30 | 27.3 |
| Okro | 20 | 18.2 |
| Cassava | 40 | 36.4 |
| Yam | 20 | 18.2 |
| Total | 110 | 100 |

Source: Field Survey, 2017

Results in table 3 shows that majority (36.4%) were involved in cassava cropping followed by 27.3% who were in to maize cropping and 36.4% were into Okro and Yam cropping respectively. This indicates that the crop mostly grown in the study area was cassava.

Table 4: Sources of agricultural extension information

Table 4 shows the sources of agricultural extension information

| S/N | Variables | | | | | Total Mean Score | Mean Score (\bar{x}) |
|------------|------------------|----|----|----|----|-------------------------|--|
| 1 | Extension | 35 | 30 | 20 | 15 | 10 | * 3.59 |
| 2 | Fellow farmers | 35 | 27 | 20 | 17 | 11 | * 3.53 |
| 3 | Television | 32 | 26 | 20 | 17 | 15 | 3.40 |

| | | | | | | | |
|---|------------|----|----|----|----|----|------|
| 4 | Internet | 34 | 24 | 20 | 18 | 14 | 3.41 |
| 5 | Radio | 33 | 26 | 22 | 16 | 13 | 3.45 |
| 6 | Town crier | 15 | 18 | 22 | 25 | 30 | 2.66 |

≥ 3.0 = Information source

< 3.0 = Not an information source

Source: Field Survey, 2017

Table 34 shows that majority ($\bar{x} = 3.59$) obtain information from extension agent followed by ($\bar{x} = 3.53$) who obtain information from fellow farmers. The least available source of information among the farmers were town crier ($\bar{x} = 2.66$), television ($\bar{x} = 3.40$), internet ($\bar{x} = 3.41$) and radio ($\bar{x} = 3.45$). The results from table 4 shows that majority of the farmers got their information from extension agent and fellow farmers.

Table 5: Influence of agricultural extension education on food crop production

| S/N | Variables | | | | | | Total Mean Score | Mean Score (\bar{x}) |
|-----|--|----|----|----|----|----|------------------|--------------------------|
| 1 | Improved standard of living for farmers | 40 | 24 | 22 | 14 | 10 | 400 | * 3.64 |
| 2 | New farming innovations and techniques | 35 | 28 | 26 | 11 | 10 | 397 | * 3.61 |
| 3 | Awareness of farm diseases outbreak | 31 | 25 | 23 | 19 | 12 | 374 | 3.40 |
| 4 | Increased income | 37 | 24 | 22 | 19 | 8 | 393 | * 3.57 |
| 5 | Creation of agricultural skill acquisition programme | 32 | 27 | 22 | 17 | 12 | 380 | 3.45 |
| 6 | Increased food crop production | 35 | 25 | 22 | 17 | 11 | 386 | * 3.51 |
| 7 | Encouragement of farmers to form co-operatives | 37 | 23 | 22 | 16 | 12 | 387 | *3.52 |
| 8 | Access to agricultural loans and grants | 33 | 25 | 20 | 18 | 14 | 375 | 3.41 |
| 9 | Creating of marketing channels for farm produce | 33 | 26 | 21 | 17 | 13 | 379 | 3.44 |

| | | | | | | | | |
|----|---|----|----|----|----|----|-----|-------|
| 10 | Provision of mechanized farming equipment | 36 | 24 | 22 | 17 | 11 | 387 | *3.52 |
|----|---|----|----|----|----|----|-----|-------|

≥ 3.0 = An influence

< 3.0 = Not an influence

Source: Field Survey, 2017

Results in table 5 shows that agricultural extension education has influence on food crop production. Using a mean of 3.0, it shows that agricultural extension education has improved the standard of living for farmers ($\bar{x} = 3.64$). It increases income ($\bar{x} = 3.57$), new farming innovations and techniques ($\bar{x} = 3.51$), encouragement of farmers to form co-operatives and provision of mechanized farming equipment ($\bar{x} = 3.52$) respectively. This implies that agricultural extension education has great influence on crop production. Agricultural extension education has contributed greatly to the farmers in the study area by improving standard of living for farmers thereby reducing poverty among farmers as through agricultural extension education; the farmers were able to meet the family basic needs such as food, clothing and shelter.

Table 6: Factors inhibiting agricultural extension education on food crop production

Result in table 6 shows the factors inhibiting agricultural extension education on food crop production

| S/N | Variables | | | | | | Total Mean Score | Mean Score (\bar{x}) |
|-----|--|----|----|----|----|----|------------------|--------------------------|
| 1 | Illiteracy | 25 | 39 | 22 | 18 | 6 | 389 | * 3.54 |
| 2 | Land tenure system | 46 | 32 | 28 | 4 | - | 450 | * 4.09 |
| 3 | Poor transportation network | 50 | 30 | 22 | 8 | - | 452 | * 4.11 |
| 4 | Inadequate storage and processing facilities | 30 | 40 | 12 | 14 | 13 | 387 | * 3.52 |
| 5 | Poor marketing system | 35 | 28 | 22 | 16 | 9 | 394 | * 3.58 |
| 6 | Weather condition | 29 | 32 | 38 | 8 | 3 | 405 | * 3.69 |
| 7 | Pest and diseases | 36 | 29 | 20 | 18 | 7 | 399 | *3.63 |
| 8 | Lack of capital | 48 | 10 | 16 | 22 | 14 | 386 | * 3.51 |

| | | | | | | | | |
|----|--------------------------------|----|----|----|----|----|-----|-------|
| 9 | Inadequate tools and machinery | 32 | 27 | 21 | 18 | 12 | 384 | 3.49 |
| 10 | Inadequate farm inputs | 45 | 28 | 25 | 22 | 8 | 421 | *3.83 |

≥ 3.0 = A factor

< 3.0 = Not a factor

Source: Field Survey, 2017

Results in table 6 shows that agricultural extension education are faced with illiteracy ($\bar{x} = 3.54$), land tenure system ($\bar{x} = 4.09$), poor transportation network ($\bar{x} = 3.52$), poor marketing system ($\bar{x} = 3.58$), weather condition ($\bar{x} = 3.69$), pest and diseases ($\bar{x} = 3.63$), lack of capital ($\bar{x} = 3.51$) and inadequate farm inputs ($\bar{x} = 3.83$) were the factors that affect agricultural extension education on cop production in the study area.

CONCLUSION

This study brings information to the rural farmers, concerning new innovations which can be applied to increase production such as the use of fertilizers, improved crops, varieties, improved breeds of livestock, pesticides etc. but even at then, farmers still faces a lot of challenges such as; finance, poor publication, poor storage facilities, limited numbers of extension agents etc. which affects them. More agricultural skill acquisition programmes should be encouraged which serves as means of empowering the farmers and also making them to have knowledge of new agricultural development in the society.

RECOMMENDATION

Based on the findings of this study, the following recommendations were drawn:

1. Inadequate farm inputs are the most problems affecting most of the farmers in the study area to adopt improved farm practices. Therefore it is recommended that Government should provide the farm inputs to farmers at subsidized prices and at right time. Tractors should also be given out and hired to farmers at a low price in order to reduce the cost of labour.
2. Farmers are advised to organize adult literacy classes in their areas in order to increase their literacy level, and also for better understanding and adoption of improved farm practices.
3. Farmers should establish effective Farmer's Organization in their areas in order to be used to facilitate procurement of the farm inputs from relevant agencies.
4. In terms of information dissemination based on agricultural innovations, techniques etc. government should recruit more extension agents not only that, they should be equipped and deployed to the rural areas where there are major farming settlement which constitutes a high agricultural production in the society.
5. There should be maximum security in the society and also in the rural areas so as to encourage the farmers go to their various farms for agricultural production.
6. Government should ensure that road networks become efficient and pliable through the construction of new roads and rehabilitation of bad roads to better facilitate periwinkle commercialization.

REFERENCES

- Adeniji, A. (1991). Impact of Agricultural Extension Services on Agricultural Programmes.
- Aina, C. L. (2002). Descriptive Survey research on rural farmers in Agricultural Extension Services.
- Akinsanmi, A. O, (1997). Problems of research institute and adoption of farming techniques.

- Akubuilu, C.J.C, (2008). The Perception of ADP extension service delivery in Enugu State.
- Ani, A. O. (2007). Agricultural Extension: A Pathway for Sustainable Agricultural Development. Apani Publications. NO. 27 Bagaruwa Road, Constain, Kaduna.
- Asiabaka, C. C. (2002). Agricultural Extension. A handbook for development practitioners Mol system Ltd Servies, Omoku, Rivers State.
- Benor, D. O. (1984).Extension service and resolution of important technological constraitns in agricultural production.
- Clear, J. B. &Bentz, R.P.C. (1984). Organizational design and extension administration agricultural extension manual (second edition) F.A.O. Rome.
- Ekine et al. (2006).The Influence of Socio-Economic Characteristics on Profitability of Yam Production.