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Contributions of Root and Tuber Expansion Programmes to Agricultural Development in Enugu South Local Government Area of Enugu State, Nigeria

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Abstract: The primary objective of this study was to identify the contributions of Root and Tuber Expansion Programmes to Agricultural Development in Enugu South Local Government Area of Enugu State. Multi-stage sampling techniques were used and out of five (5) communities in the study area, three (3) were randomly selected and twenty respondents from each selected communities in all sixty respondents were interviewed and sampled. Primary data were collected through oral interviews and well structured questionnaires. Secondary data were collected from already prepared work such as textbooks, magazines, internets, ENADP, etc. It was discovered that RTEP contributed to agricultural development in Enugu South Local Government Area and more people are now involved in agriculture due to the benefit of this programme. Some problems like land tenure system, farm inputs, lack of incentives and non-payment of salary as at when due were also discovered. It was recommended that government and effective extension system should be pursued to achieve greater agricultural productivity and also to encourage people into farming in order to achieve the aims and objectives of this programme.

Key words: Root · Tuber · Agricultural development · Sampling techniques and Extension service

INTRODUCTION

Agriculture in Nigeria is one of the oldest and most important occupations of mankind since the need for increased food population has become the major problem of many countries.

Agriculture plays a major role in the economy and society of most Nigerians and increased productivity in the sector is considered to be the very basis for the continents economic and social development. There is broad agreement that increased agricultural productivity is a precondition for growth and development in Nigeria particularly the last developed ones. Agriculture is considered the engine of economic growth with strong multiplier effects throughout the economy.

Agriculture accounts for about 30% of sub-Sahara Africa's GDP, at least 40% of export values and approximately 70-80% of employment. Furthermore, two-third of manufacturing industries added value in most African countries which is based on agricultural raw materials. In a number of smaller countries, agriculture plays an even more dominant role representing 80% or more of export earning.

According to [1] the word agriculture comes from two Latin words, "agar" which means land and "cultural" which means to till or to cultivate. Agriculture, therefore, means the cultivation of land and this definition describes the earliest form of agriculture when man settled down from being a cultivator of crops.

According to [2], agriculture is the art of farming or the process that involves the production of plants and animals which are useful to man. Agriculture is primarily concerned with the supply of human needs such as food, clothing and shelter through the raising products of soil and livestock.

Agriculture is still the most important sector in the Nigerian economy. Up till the late fifties, agriculture contributed to over 60% of Gross Domestic Product (GDP)

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and its percentage contributor however has fallen drastically in recent years due to the oil boom. Notwithstanding the agricultural sector still provides employment for over 70% of the Nigerian population. Apart from the provision of the means of livelihood to farmers, it creates job even more dominant role representing 80% or more of export earnings.

With all these, agriculture contributes towards raising the standard of living of the nation. But the prospect of raising and maintaining the national income largely depends on producing the best quality exportable product and the possibilities of developing new industries [4].

Objectives of the Study: The broad objective of this study was to know the contributions of Root and Tuber Expansion Programme to Agricultural Development in Enugu South Local Government Area of Enugu State. The specific objectives were to:

- Determine the socio-economic characteristics of farmers in Enugu South Local Government Area of Enugu State
- Determine the contribution of the programme to agricultural development in Enugu South Local Government Area of Enugu State.
- Evaluating the rate of adoption by farmers
- Know the introduction of root and tuber technology by extension agents.
- Identify the problems of root and tuber expansion programme in the study area.
- Make policy recommendations based on findings

MATERIALS AND METHODS

Area of Study: The study area was Enugu South Local Government Area of Enugu State. It comprises of five (5) communities which are Amechi, Obeagu, Akwuke, Amagugwu and Akagbeugwu.

The population of those people in these areas was 123,904 according to Nigerians 2006 census. Males were 62,053 and females were 61,851 making it a total of one hundred and twenty-three thousand, nine hundred and four (123,904) from the population census held in 2006.

The vegetation in some parts is predominantly grasses and the area is fast growing into urbanized and commercial area. The major occupation of the indigenes in these areas is farming, petty-trading and civil servant. The main crops grown in this area is vegetables, cassava and yam, etc.

Sampling Techniques: Multi-stage random sampling technique was used and out of the five (5) communities, three (3) communities which include: Amechi, Obeagu and Akwuke were selected. From the three (3) communities, 20 farmers were selected from each of the three (3) communities, which were randomly selected making it a total of sixty respondents (60) that was sampled and interviewed from the three (3) communities.

Data Collection: The primary and secondary source of data collections were used in carrying out this research work. Primary data were collected using a well-structured questionnaire and oral interview while secondary data was collected from already made and published work such as textbooks, magazines, journals, internets, ENADEP, other projects and seminar papers.

Data Analysis: Data was analyzed based on specific objectives. Objectives I, II and III was analyzed using descriptive statistics such as frequency distribution table and simple percentage. Objective IV, V and VI were met by drawing inference from all the above analysis and make policy recommendations based on findings.

Data Presentation and Analysis: The presentation and analysis were based on the data collected from the respondents through the questionnaire administered to them. It is essential to mention that the Reponses of the respondents will be presented and analyzed in descriptive statistics and percentages.

The Table 1 shows that 66.6% of the total selected respondents were females while 33.3% were males. This indicates that more females are into farming in the study area.

Table 1: Frequency Distribution of Respondents according to their Sex

Status	Frequency	Percentage (%)
Male	20	33.33
Female	40	66.67
Total	60	100

Source: Field Survey, 2009

Table 2: Frequency Distribution according to Marital Status

Status	Frequency	Percentage (%)
Single	5	8.33
Married	25	41.67
Divorced	15	25
Widows/widower	15	25
Total	60	100

Source: Field Survey, 2009

Table 3: Frequency Distribution of Respondents Age

Status	Frequency	Percentage (%)
10-20	5	8.33
21-30	5	8.33
31-40	10	16.67
41-50	40	66.67
51 and above	-	-
Total	60	100

Source: Field Survey, 2009

Table 4: Frequency Distribution of Respondents by Educational Level

Level	Frequency	Percentage (%)
Primary	5	8.33
Secondary school	20	33.33
Tertiary institution	25	41.67
No formal education	10	16.67
Total	60	100

Source: Field Survey, 2009

Table 5: Membership of Farmers Group

Farmers Group	Frequency	Percentage (%)
Yes	40	66.67
No	20	33.33
Total	60	100

Source: Field Survey, 2009

Table 6: Frequency Distribution of Respondents according to their Major Occupation

Occupation	Frequency	Percentage (%)
Trading	15	25
Farming	20	33.33
Civil servant	25	41.67
Others	-	-
Total	60	100

Source: Field Survey, 2009

Table 7: Frequency Distribution of Respondents according to their Cash Income

Income (N)	Frequency	Percentage (%)
Less than 50,000	20	33.33
50,000-70,000	20	33.33
70,000-90,000	10	16.67
90,000 and above	10	16.67
Total	60	100

Source: Field Survey, 2009

Table 8: Frequency Distribution of Respondents according to Power Supply

Power Supply	Frequency	Percentage (%)
Local lamp	10	16.67
PHCN	30	50
Rural electrification	15	25
None	5	8.33
Total	60	100

Source: Field Survey, 2009

Table 9: Frequency Distribution of Respondents according to their Source of Water Supply

Source of Water	Frequency	Percentage (%)
Tap	10	16.67
Borehole	20	33.33
Spring	10	16.67
Well	20	33.33
Other	-	-
Total	60	100

Source: Field Survey, 2009

The above result shows that majority of the respondents representing 41.67% were married, 25% widows, 25% divorced and 8.33% singles. This implies that majority of the respondents were widows.

The table shows the distribution of respondents according to age group. The bulk of the participating farmers were those between 41-50 years which accounted 66.67% while 16.67% was accounted for farmers within the age of 21-40. This shows that youths were not engaged in farming in the study area.

The table shows that 8.33% of the respondents have primary education, 33.33% have secondary education, 41.67% have tertiary education, while 16.67% have no formal education. This implies that majority of the respondents are literates.

This Table shows that 66.67^% of the respondents are members of the farmers group and this implies that rural institutions are well developed in the study area.

This table shows that majority of the respondents are civil servants (41.67%), those engaged in farming are 33.33% and those in trading are 25%.

The table shows that 33.33% of the respondents earn less than N50,000 from their occupation. 16.67% earn N70,000 and N90,000 above. This implies that the income of the respondents are low.

Section B: Contribution of the Programme: This table shows that 50% of the respondents use PHCN, 25% use rural electrification, 16.67% use local lamp and 8.33% have no power supply. This implies that majority of the respondents have access to PHCN.

This table shows that 33.33% of the respondents source their water from borehole and well. While 16.67% of the respondent's source their water from tap and spring. This implies that their water will determine the respondents' disposition to infection.

The study shows that 8.33% use family labour, 16.67% use hired labour, 25% use cooperation and 50% use hired/family labour. This implies that majority of the farmers in the study area used hired/family labour.

Table 10: Frequency Distribution of Respondents according to Source of Labour

Source of Labour	Frequency	Percentage (%)
Family	5	8.33
Hired	10	16.67
Cooperation	15	25
Hired/family	30	50
Others	-	-
Total	60	100

Source: Field Survey, 2009

Table 11: Frequency Distribution of Respondents according to their Rate of adoption

Rate of Adoption	Frequency	Percentage (%)
10-20	5	8.33
21-30	10	16.67
31-40	30	50
50 above	15	25
Total	60	100

Source: Field Survey, 2009

Table 12: Frequency Distribution of Respondents according to the Cost of Adoption

Cost of Adoption	Frequency	Percentage (%)
Yes	40	66.67
No	20	33.33
Total	60	100

Source: Field Survey, 2009

Table 13: Frequency Distribution of Respondents according to the Introduction of the Programe

Introduction of the Programme	Frequency	Percentage (%)
1-5 years	20	33.33
6-10 years	10	16.67
11-15 years	15	25
16-20 years	10	16.67
20 years and above	5	8.33
Total	60	100

Source: Field Survey, 2009

Table 14: Frequency Distribution of Respondents Based on their Felt Needs

Felt Needs	Frequency	Percentage (%)
Yes	40	66.67
No	20	33.33
Total	60	100

Source: Field Survey, 2009

Table 15: Frequency Distribution of Respondents according to the Kind of Technology

Kind of Technology	Frequency	Percentage (%)
Appropriate	40	66.67
Inappropriate	15	25
Intermediate	5	8.33
Total	60	100

Source: Field Survey, 2009

Table 16: Frequency Distribution of Respondents according to Land Acquisition

Land Acquisition	Frequency	Percentage (%)
Non-availability	40	66.,67
High cost	20	33.33
Other specify	-	-
Total	60	100

Source: Field Survey, 2009

Table 17: Frequency Distribution of Respondents according to Pest and Diseases Attack

Pest and Diseases	Frequency	Percentage (%)
Yes	40	66.67
No	20	33.33
Total	60	100

Source: Field Survey, 2009

Section C: Evaluation of the Rate of Adoption of Technology by Farmers: This implies that majority of the respondents adopt the technology at the rate of 31-40 and 25% of ht respondents adopt it at the rate of 50 and above, 16.67% of the respondents adopts it at 21-30 and 8.33% adopt at the rate of 10-20. This shows that there is improvement in the programme.

This shows that majority of the respondents can afford the cost of adoption.

Section D: Introduction of Root and Tuber Technology by Extension Agents: This implies that 33.33% of the respondents get to know the programme at 1-5 years, 16.67% at 6-10, 25% at the age of 1-15, 8.33% at the age of 20 and above.

This shows that majority of the technology is based on the felt needs of the respondents.

This shows that the technology is suitable and acceptable by the respondents in the study area.

Section E: Problems of the Programme: This shows majority of the farmers do not have enough land to cultivate root and tuber crops.

This implies that majority of the respondents have problems of pest and diseases.

Summary: Conclusion and Recommendations

Summary: This study on the contribution of root and tuber expansion programme to agricultural development in Enugu South Local Government Area of Enugu State were summarized according to the data presented and analyzed in this study.

- The study shows that there were more females than males which means that women are more in farming activities than men in the study area.

- The study also reveals that majority of those involved in farming activities are married because youths are not popularly engaged in farming activities.
- The study shows that the bulk of the participating farmers are those between the age group of 41-50 years because of the saying that agriculture is left in the hands of the old people.
- The study reveals that majority of people are literates in their educational level and this makes the work of the extension officers easier and simple.
- From the study, 66.67% of the respondents are members of the farmers group due to the awareness created among the farmers on the essence of rural institution.
- The study shows that more people are into civil service work as their major occupation than farm activities.
- The study also revealed that farmers cash income increased unlike the past years farmers earn income.
- The study shows that majority of the respondents owned and built their own houses unlike the past years when farmers live in mud/thatched houses.
- The study shows that 33.33% of the respondents source their water from boreholes and well which means that things have not changed all through the year.
- The study also discussed that majority of the respondents use PHCN as their major source of power supply and 16.67% use local lamps as their own sources of power supply.
- The study shows that the respondents mode of transportation improved as a result of RTEP.
- The study also revealed that majority of the respondents have access to all the necessary inputs in the cost of the programme.
- The study shows that labour, finance and pricing was the main problem in RTEP to agricultural development.

CONCLUSION

The root and tuber expansion programme to agricultural development was organized in order to provide a supportive frame work that encourages investments and well functioning private and public market institutions. This should be done together with the design of an agric-business policy that was targeted in taking advantage of domestic and international market opportunities to sustain increased agricultural output and raise rural income. In order to be competitive on supply side, government and key players need to encourage increased and sustained volume of output of consistent quality and standards. Government also should encourage local champions, private and public sector for them to organize the physical and human resources that will be favourable to the farmers.

Recommendations: Having created awareness on the diverse use of RTEP, the following should be done:

- All the stakeholders need to make more efforts so that the present production level will be increased and sustained.
- Government should be urged to make their funds available and on time.
- Attention need to be paid to the provision of machines and equipment, e.g. tractors in order to meet p the demands for root and tuber crops.
- Improvement upon mobility of the staff should be done especially the field staff.
- The project budget needs to be more flexible in order to increase the volume of activities involved in implementation of the project.
- The government should collaborate with the NGO's and other nation's agency for the improvement of agricultural development.

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