Agricultural Extension Service Needs of Smallholder Cassava Farmers in Dekina Local Government Area of Kogi State- Nigeria

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ABSTRACT

The main focus of this study was to investigate the agricultural extension service needs of smallholder cassava farmers in Dekina local government area of Kogi state. The study has shown that cassava production in the study area has great potentials because of the active involvement of the youth. It has revealed that most of the cassava farmers had no contact with extension workers and therefore lacked critical extension information. The study has also shown that the farmers operated small-sized farms with inadequate productivity enhancing inputs. It has therefore recommended that more extension workers be sent to the rural areas and that cassava farmers should come together to form cassava farming groups to enable them access inputs and credit.

Key Words: *Agriculture; Extension service; Cassava; Farmers; Dekina*

1. INTRODUCTION

Cassava is a popular crop grown in Nigeria. Currently Nigeria is the largest producer of cassava in the world (FAO, 2004). It is grown extensively in many states of the federation and contributes significantly to the country's Gross Domestic Product (GDP). As one of the staple crops, cassava plays a very significant role in the food security equation of the rural economy (Ezedinma, Dixson, Sanni, Okechukwu, Akoroda, Lemile,Ogbe and Okoro, 2006). For instance, many Nigerians eat cassava meal almost every day in different forms either as garri, fufu or cassava flour (Nweke, 2002). Besides being one of the major sources of income to rural farmers, it is used in the production of animal feeds, industrial starch, and industrial alcohol. It is also a rich source of carbohydrates. Involvement in the production of cassava reduces unemployment rate (Bamidele, Babatunde and Rasheed, 2008).

Apart from the local demand, Nigerian cassava based-products command high foreign demand. For example, the Presidential Committee on cassava reported that in 2004, South Africa and Botswana demanded for over 400,000 tonnes of cassava chips from Nigeria (Raw Materials Research and Development Council, 2004). This shows that cassava production can provide an opportunity for Nigeria to earn foreign exchange and to diversify from the oil-based economy. However, for this foreign earnings to be achieved and the diversification to be enhanced require increased production. Regrettably, cassava production in Nigeria is predominantly carried out by small holder farmers who own small parcels of land and use crude technology. Interestingly, many states in Nigeria are naturally endowed with favourable climatic conditions for the production of cassava. However, to boost cassava production in these states is contingent on a number of factors. One of the most important factors is access to appropriate and relevant extension information on all aspects of cassava production. Agricultural production, especially in agrarian economies, recognizes agricultural extension scheme as a vital mechanism for the transmission of information and advice to farmers for improved productivity. In our context, readily available and appropriate extension messages based on farmers' needs are a sure way for them to harness the enormous potentials in the cassava subsector. It is on the basis of this fact that this study sought to investigate the

extension service needs of small holder cassava farmers in Dekina loca government area of Kogi state-Nigeria.

2. METHODOLOGY

Dekina local government area is comprised of three districts namely; Biraidu, Okura and Dekina. All these districts were studied. In each of the districts, four villages were randomly selected bearing in mind their geographical spread and studied. The villages selected were Iyale, Ofugo, Ogane-enigu,and Ologba (Dekina district); Abejukolo. Acharu, Ofejiji and Ojapata (Okura district) and Agala, Agbeji, Iga, and Chikoro (Biraidu district). The total number of villages was therefore 12. In each of the villages, 15 cassava farmers across gender and generation were randomly selected and studied using self-administered structured questionnaire and interview. Hence a total of 180 cassava farmers were selected and studied. The two instruments provided the opportunity to collect information on the age, level of education, household size, years of farming, size of farms, and farming constraints.

Dekina local government area is one of the 21 local government areas that make up Kogi state. It has a population of 260,312 with a land size of 2461 $km^{2.}$ (NPC, 2006). This gives a population density of 105.78 persons per square kilometre thus indicating that the local government area is densely populated. The local government area is populated majorly by the Igala although there are other minority ethnic groups like the Bassa. The people are predominantly farmers and typically engage in the production of yams, cassava, beans, maize, cocoyam, cashew and oil palm. Cassava is an important crop in the area and is grown extensively by all the farmers because it is one of the important staple crops. It also generates income to the farmers. Despite the fact that most of the farmers in Dekina local government area are involved in the production of cassava, the output of the crop has not attained its maximum potentials due to a myriad of factors especially technical advice. This forms the basis for assessing the agricultural extension service needs of smallholder cassava farmers in Dekina local government area of Kogi state –Nigeria.

3. RESULTS AND DISCUSSION

Table 1 presents the age distribution of respondents. A careful examination of the table shows that youths are actively involved in the production of cassava. Majority of the respondents were within the active age range. This portends a bright future for cassava production in the study area. This is quite unlike many other communities in Nigeria where the youth are abandoning farming for the old.

Table 1: Age distribution of respondents

AGE	FREQUENCY	PERCENTAGE
18-27	24	13.33
28-37	61	33.89
38-47	35	19.44
48-57	36	20.00
58 and above	24	13.33

In terms of sex, table 2 shows that 127 (70.56%) of the respondents were males while 53 (29.44%) were females. The low involvement of women in cassava production in the study area is because of the laborious nature of farming operation. The process of cassava production right from tillage to management is energy demanding.

Table 2: Distribution of respondents by sex

Sex	Frequency	Percentage.
Male	127	70.56
Female	53	29.44
Total	180	100

In terms of educational attainment, table 3 shows that majority of the respondents were literate. For instance, the table shows that 66(36.67%) had secondary school education, 48 (26.67%) had diploma or National Certificate of Education (NCE) while 23 (12.78%) had degrees. Only 16 (8.89%) had no formal education. This level of literacy indicates that the respondents were learned enough to appreciate the benefits of productivity enhancing information. The cassava farmers with degrees were primary and/or secondary school teachers who combine farming with teaching.

Table 3: Educational level of respondents

Level of education	Frequency	Percentage
No formal education	16	8.89
Primary	27	15.00
Secondary	66	36.67
Diploma/NCE	48	26.67
Degree	23	12.78
Total	180	100

With regards to marital status, 151 (83.89%) of the respondents were married while 17 (9.44%) were widows/widowers. Only 12 (6.67%) were single. The active involvement of both the married, single and widows/widowers in the production of cassava in the study area underscores the importance of the crop both as a staple food crop and as a source of income. Moreover, all the married and widowed have family responsibilities. These responsibilities require the willingness of the people to engage in productive activities so as to meet family demands.

Table 4: Marital status of respondents

Status	Frequency	Percentage.
Married	151	83.89
Single	12	6.67
Divorce	11	6.11
Widow/Widower	6	3.33
Total	180	100

In terms of household size, 68 (37.78%) had up to 4-6 household members, 58 (32.22%) had 1-3 members, 31 (17.22%) had between 7-9 members while 23 (12.78%) had from 10 and above members. This composition clearly shows that members in the study area have large family sizes. The active involvement of the people into cassava production could therefore be the need to cater for the food and financial needs of the large number of persons per household. It should also be observed that with this household size, many of the farmers may be unable to feed their families properly and at the same time save so as to expand their cassava farms. However, the largeness of families suggests availability of family labour on the farms.

Table 5: Respondents' household sizes

Household size	Frequency	Percentage
1-3	58	32.22

Household size	Frequency	Percentage
4-6	68	37.78
7-9	31	17.22
10 and above	23	12.78
Total	180	100

With regards to farm size, findings revealed that most of the cassava farmers were small scale producers as they cultivated less than 10 hectares. For example, 68 (37.78%) operated 4-6 ha; 58 (32.22%) operated 1-3 ha while 33 (18.33%) operated 7-9 ha. Only 21 (11.67%) farmers operated 10 ha and above. This shows that cassava farms in the study area were really small. It was observed that almost all the cassava farms were based on sole cropping. (see table 6)

Table 6: respondents' sizes of farms

Size in hectares	Frequency	Percentage.
1-3	58	32.22
4-6	68	37.78
7-9	33	18.33
10 and above	21	11.67
Total	180	100

In terms of farming experience, 58 (32.22%) had worked as cassava farmers for between 11-15; 52 (28.89%) had cassava farming experience of over 16 years. Only 15 (8.33%) had experience of 5 years and below (see table 7). This shows that most of the farmers had long experience of cassava farming. It therefore means that with their long years of experience, they could make good judgement on areas of cassava farming that requires improvement.

It should be noted that none of the farmers indicated that they belonged to any cooperative society. This suggests the lack of knowledge about the benefits of cooperative societies. However, many of the farmers engaged in weekly or monthly contributions so as to enhance their savings.

Table 7: Years of farming experience

Experience in years	Frequency	Percentage.
1-5	15	8.33
6-10	55	30.56
11-15	58	32.22
16 and above	52	28.89
Total	180	100

With regards to contact with extension workers, table 8 reveals that 114 (63.33%) of the respondents indicated that they had no contact with extension workers. Even those who indicated that they had contact with extension workers, majority of them 29 (16.11%) said it was only once in every six months. Considering the importance of extension information to farmers, one can conclude that cassava farmers in the study area had no significant contact with extension workers.

Table 8: Contact with extension workers

Contact	Frequency	Percentage
Once in two weeks	Nil	Nil
Once in a month	17	9.44
Once in two months	20	11.11
Once in six months	29	16.11
No contact at all	114	63.33

Contact	Frequency	Percentage
Total	180	100

Concerning production information needs, 93 (51.67%) of the farmers indicated pest and disease control; 41 (22.78%) indicated inputs such as fertilizers, herbicides; 31(17.22%) indicated credit facilities while 15 (8.33%) indicated weed management (see table 9) These needs were expressed probably due to the lack of extension contact of most of the respondents as shown in table 8. Fertilizer application, planting materials, skills for chemical application were not considered by the farmers as crucial extension needs possibly because of the high literacy level and farming experience

Table 9: Production information needs of respondents

Needs	Frequency	Percentage.
Credit	31	17.22
Weed control and management	15	8.33
Pets and disease control	93	51.67
Inputs	41	22.78
Total	180	100

Respondents were also subjected to indicate their sources of extension information. Table 10 shows that the major source of extension information to the cassava farmers was through friends and neighbours. Only very few cassava farmers (31 or 17.22%) indicated that they had their information from extension workers. It is noted that majority of the cassava farmers (149 or 82.78%) had no access to extension services because extension offices were located far away from the locations of the farmers. It therefore suggests that extension officers find it difficult to visit the farmers because they lack mobility. Even the few farmers who got information from extension workers said it was because of their nearness to the extension offices.

Table 10: Sources of extension information

Source of information	Frequency	Percentage.
Friends/neighbours	149	82.78
VEA	31	17.22
Pamphlets	=	=
Radio	=	=
Total	180	100

On production constraints, respondents were asked to make multiple responses. Majority of the respondents (71 or 39.44%) identified lack of finance as the major constraint they were experiencing. This position is understandable as majority of the cassava farmers operate small farms but have large families. These farmers therefore hardly have surplus for the market. The second constraint in order of priority by the farmers was that of inadequate and/or absence of extension contact. Table 8 actually confirms that cassava farmers' contact with extension workers in the study area was low. Other impediments to cassava production according to the respondents were high cost of productivity enhancing inputs, and high cost of labour.

4. CONCLUSION AND RECOMMENDATIONS

The study has shown that the future of cassava production in the study area is very bright because of the active involvement of the youth in the business. It has also shown that the cassava farmers operate small-sized farms but have high levels of farming experience and literacy. To a farming population this level of farming experience and literacy is of great

advantage it could enable the farmers to make good judgement of areas of cassava farming that requires improvement. However, this advantage could not be fully exploited because most of the farmers had no contact with extension workers. Also, farmers could not farm beyond subsistence level because of the cost of labour and inputs. It is therefore recommended that;

Cassava farmers (in fact, farmers generally) should be encouraged to form cassava farming groups. This will enable them to pool their resources together to access inputs and credit facilities so as to manage their farms more effectively. The farmer-extension link should be strengthened by posting more extension workers to the rural areas. To ensure effective coverage of the rural areas, the village extension workers should be adequately mobilized and accommodated. The small-sized cassava farms could also be made more productive if the farmers are provided with support services and technical advice. Productivity enhancing inputs such as fertilizers and chemicals should therefore be made readily available at affordable prices to the farmers. The study observed that farmers in the study area plant several crops at the same time. This cropping pattern creates labour bottlenecks. It is therefore recommended that planting is staggered so as to ensure flexibility in the use of labour time. The staggered planting should be based on the recommendations of an effective extension service. This will allow labour to be spread throughout the year.

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