

Influence of Sources of Agricultural Information on Maize Farmers in Southern Borno, Nigeria.

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Abstract

The study was conducted to assess the influence of sources of information on maize farmers' in southern Borno, Nigeria. The specific objectives were to examine the socio-economic characteristics of farmers in the study area and to find out the sources through which agricultural information were made available to them in the study area. Data for the study were obtained from 360 respondents selected through multi-stage sampling procedure. Both descriptive and inferential statistical techniques were used to analyze the data. The result revealed that 100.5% of the respondents sourced their agricultural information through extension agents, 58.08% sourced theirs through friends and neighbours, while 46.09% got their information through contact farmers. Based on the findings of this study it was recommended that for sustainable food security in the study area farmers should be targeted with relevant and timely agricultural information in order to boost their maize production capacity. Also, provision of information resource centers in the rural areas is of paramount importance in order to facilitate easy access to agricultural information among farmers in the study area.

Key Words: Information, Utilization, Farmers, Borno State.

1. Introduction

Information is very vital to human and societal development. Specifically, extension information is relevant to agricultural practices and development. Consequently, rural farmers play prominent role in dissemination of and utilization of extension information (Fadiji, *et al.*, 2005). Agricultural information is conceived as a productive resource potentially limiting and influencing the efficiency of production. Agbamu (2006) opined that farmers' sources of information fundamentally shape the kind of decision they make. Access to adequate information is very vital to increased agricultural productivity (Mgbada, 2006). Information to improve maize production technologies by farmers are needed in such areas as plant spacing, fertilizer application, weeding, land preparation. The importance of maize for human, animal and industrial consumption cannot be overemphasized as it touches the lives of a larger percentage of the population of the world. This calls for improved maize farming technologies and other information needed for improved production level. This study was therefore designed to find out the sources through which agricultural information were made available to farmers in the study area.

The main objective of the study was to assess the influence of sources of agricultural information on maize farmers in southern Borno, Nigeria. While the specific objectives were to:

- i. identify the socio-economic characteristics of the respondents' in the study area;
- ii. examine the various sources through which the agricultural information were made available to the respondents.

2. Methodology

The study was conducted in Southern Borno, Nigeria, where improved maize varieties and associated management practices were being promoted for both food and commercial crop by Promoting Sustainable Agriculture in Borno (PROSAB) namely- Biu, Damboa, Hawul and Kwaya-Kusar Local Government Areas. Within the state, the study area is bordered by Chibok and Askira/Uba LGAs to the East, Bayo and Shani LGAs to the South. Within the country, the study area is bordered by Adamawa state to the Southeast and Yobe state to the West.

Multi-stage random sampling technique was employed to select respondents for the study. Maize farmers in the four LGAs in Borno state where maize is being promoted as food and commercial crop formed the population for the study. In the first stage, the four LGAs were purposively selected. In the second stage, four maize-producing communities were purposively selected from each of the Biu and Kwaya-Kusar LGAs, three communities from Hawul LGA, while one maize-producing community was purposively selected from Damboa LGA. The third stage involved selecting proportionate number of respondents from each of the twelve communities earlier selected for the study. The selection of respondents at this stage was done randomly. The three hundred and sixty respondents were finally used for the study.

Both descriptive and inferential statistics were used to analyze the data collected for the study. Frequency and percentage tables were used to tabulate the socioeconomic characteristics of the respondent and their sources of information, while Pearson correlation coefficient was used to test the hypothesis.

3. Results and Discussion

3.1 Socio-economic characteristics of respondents

The socio-economic characteristics of respondents considered for this study include the following: age, household size, gender, marital status and educational level. The results revealed that 63.1% of the respondents fell within the age bracket of 50 years and below, 22.6% of the respondents were within the age bracket of 51-60 years, while 14.3% of them were above 60 years of age, the mean age was found to be 44.24 years (Table 1). By implication, the study area has large number of able-bodied farmers who have a greater tendency to utilize agricultural information/innovations. Adesina and Zinnah (1992) and Odoemenem and Obinne (2010) reported that middle aged farmers are relatively more open to risk taking and have longer planning horizon than older people. This age range has the advantage for the utilization of information. Bamire and Manyong 2003; Sheik *et al.*, 2003 showed that age of an individual affects his mental attitude to new ideas and hence influence information utilization in several ways.

On the contrary Asiabaka *et al.* (2001) reported in their study that farmer's ability to utilize agricultural information and new farm innovations decreases with age. The older the farmer, the less likely they will utilize information. Typically, younger farmers are more willing to take risk than older farmers. On the contrary Ofuoku *et al.* (2006) found that age is related to information utilization because the stage of life of farmers affects their attitude towards information usage. The older the farmers are the more likely they are willing to put farming related information to use. This finding does not agree with Lemchi *et al.* (2003) who stated that the older the farmer, the more risk averse he/she is.

Results from the study (Table 1) show that 69.09% of the respondents had less than eight members per family, 18.02% of them had between nine to eleven members per family, only 11.09% of them had more than eleven members per family, the mean household size was found to be 7.09 persons per household. Family labour is an important component of labour for small-scale farmers. This is mainly because the subsistence farm households are resource poor and may have to depend on family labour for agricultural activities which in most instances is labour intensive (Idrisa, 2009). Arene (1999) reported a positive and significant relationship between family size and information utilization. On the other hand Voh (2000) established that household size is not significantly related to information utilization.

Table 1 also reveals that majority (79%) of the respondents were male while 21% of them were female. The most probable reason for such overwhelming majority of male farmers is that the male farmers constitute the household heads and they respond on behalf of the households except in a situation where the household head is female. Various studies (Onu, 2006; Idrisa *et al.*, 2007) found that gender plays significant role in having access to production resources and hence utilization of information. Even though Olayemi and Ikpi (1995) described women as the invisible work force and acknowledged backbone of the family and economy, the study also stressed that the activities of women are faced with socio-cultural restriction. Such restrictions limit their ability to accumulate assets, access to production resources (such as information, credit and land) and thus, affect their demand and supplies to improve their productive practices. Similarly, in this study area, women are rarely allocated land use right neither do they have equal access to other necessary productive resources such as information, credit or extension services compared to their male counterparts. This situation normally results in differential to information utilization between male and female farmers.

The study revealed that majority (83.9%) of the respondents was married, 11.09% were single, and 3.9% were widows while 0.03% was divorced (Table 1). Marital status has implication for utilization of agricultural information and technologies (Idrisa, 2009). On the other hand, married people have more responsibilities and hence they take whatever they do with higher levels of seriousness. In that case, they will be willing to seek information about improved technologies so as to enhance the welfare of their families. Furthermore with regards to females, being married can be a serious hindrance to utilization of information. This is more especially in the study area where culture restricts interaction between males and females. Women attend functions, including extension training only with the consent of their husbands. This implies that females who were not married (single or divorced) have higher access to information. Onu (2006) earlier found that cultural factors formed a serious barrier to information utilization by women in Imo State, Nigeria.

The study showed that many (50.02%) of the respondents had attained at least adult education level of education. About 21.08% had up to tertiary level of education, while 28.06% of them had no formal education at all (Table 1). Education influences farmer's information utilization. Educated people are expected to perform certain jobs and functions with higher efficiency and are also more likely to utilize information and new technologies in shorter period of time than uneducated people (Agbamu, 2006). This may be because educated people can gather, process and interpret all available information, differentiate between promising and unpromising investment areas and also make decision more easily with relatively small error.

Ofuoku *et al.* (2006) corroborated in their studies that the level of education of farmers has significant relationship with information utilization by them, because educational level influences information utilization.

The higher the level of farmer's education, the more they are willing to use information provided on agricultural production. Eze *et al.* (2006) discovered in their work that the level of formal education correlated positively with utilization of information on cassava production technology. For instance, the more educated the farmers are the more receptive they will be with regards to utilization of agricultural information and adoption of new technologies (Ani, 1999).

3.2 Sources of agricultural information on maize production

The results (Table 2) revealed that 100.05% source agricultural information through extension agents, 58.08% through friends and neighbours, 46.09% through contact farmers, 45.08% through radio, 13% through cooperative and commercial agents, 1.06% through newspapers, 18.06% got their agricultural information through television, while 1.03% got their agricultural information through posters, pamphlets and leaflets.

From these results, agricultural extension workers constitute the most important source of information to the respondents, followed by friends and neighbours, contact farmers, radio, television, newspapers and then posters/pamphlets and leaflets. Extension agents, contact farmers, and friends and neighbours were the most sources of information used by the respondents. This could be because, they are the cheapest means of sourcing information, and it does not require much effort to get information from these sources, since the extension agents meet with the farmers on the farm. Farmers meet with their friends and neighbours mostly in the evening after the day's work. Likewise, the contact farmers live together with the farmers in the same vicinity.

Newspapers, posters, pamphlets and leaflets were the least sources of information used by the respondents respectively. Newspapers as a source of information many times could carry information that may not be relevant to the farmers, while posters, pamphlets and leaflets may carry incomplete information, whereas the farmers' may need immediate feedback. These findings were in line with Agbamu *et al.* (1996) who found that it is extension workers that farmers in Ogun State of Nigeria use most as information sources. Floyd *et al.* (1999) reported that extension workers from Nepal's agricultural research centre were the most dominant source of information for technology awareness, with farmer to farmer sources ranking second and little contribution from extension bulletins, radio and market. Obinne and Oche (2001) found that small-scale farmers preferred homophilous source of farm communication and would thus, rely on them for needed innovations (Homophilous relationship has to do with people of similar characteristics, particularly of social and economic standing). The most preferred sources in rank order according to Obinne and Oche (2001) were neighbours, relatives, opinion leaders and extension agents. They stated that newspapers, radio, television, extension bulletins and film shows had very low factor loading analysis on information sources preference. Asiabaka *et al.* (2001) found out in their work that fellow farmers ranked their fellow farmers and friends as the most available source of information. The finding of this study therefore, corroborates the result of Adekoya (2000) who found that extension agents were the major sources of information used by farmers in Iddo LGA of Oyo state, Nigeria.

4. Conclusion and Recommendations

The study analyzed the impact of agricultural information utilization among farmers in Southern Borno, Nigeria. The findings of the study revealed that significant proportion of the respondents sourced their information through extension agents, contact farmers and friends/neighbours.. The study recommends that for sustainable food security in the study area farmers should be targeted with relevant and timely agricultural information in order to boost their maize production capacity. Also, provision of information resource centres in the rural areas is of paramount importance in order to facilitate easy access to agricultural information among farmers in the study area.

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Table 1: Distribution of respondents based on socio-economic characteristics (n=360)

Socio-economic variables	Frequency	Percentage	Mean	S.D
Age category(years)				
≤20	3	0.08		
21 – 30	49	13.05		
31 – 40	90	24.09	44.24	12.55
41- 50	86	23.09		
51-60	81	22.06		
≥60	51	14.03		
Household size(number)				
≤3	37	10.04		
3 - 5	95	26.05		
6 – 8	119	33.00	7.09	4.09
9 – 11	66	18.02		
≥11	43	11.09		
Gender				
Male	284	79.00		
Female	76	21.00		
Marital Status				
Single	43	11.09		
Married	302	83.09		
Widowed	14	3.09		
Divorced	1	0.03		
Level of education				
No formal education	102	28.03		
Adult Education	29	8.01		
Primary School not completed	18	4.09		
Primary School Completed	28	7.08		
Secondary School not completed	22	6.00		
Secondary school Completed	84	23.04		
Tertiary Education	77	21.03		

Source: Field Study, 2010

Table 2: Distribution of respondents based on their sources of agricultural information

Sources of information	Frequency*	Percentage
Extension agents	270	100.05
Contact farmers	169	46.09
Friends/Neighbours	212	58.08
Radio	165	45.08
Television	67	18.06
Posters/pamphlets/leaflets	5	1.03
News papers	6	1.06
Cooperative /commercial agents	47	13

Source: Field survey, 2010

*Frequency based on multiple responses

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