A STUDY OF EXTENSION AGENTS' PERFORMANCE UNDER THE UNIFIED AGRICULTURAL EXTENSION SERVICE SYSTEM IN BORNO STATE, NIGERIA

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ABSTRACT

The study assessed the performance of extension agents under the Unified Agricultural Extension System (UAES) in Borno state. Structured questionnaires were used to elicit relevant information from 40 extension agents working under the U.A.E.S. in Borno State. The results showed that majority of the respondents have received the necessary training to enable them operate effectively under the U.A.E.S. The study also revealed that majority of the respondents received logistic materials aimed at enhancing technology delivery to farmers. Both the educational levels of the respondents and logistic materials given to them have high and positive correlation coefficients (r = 0.81 and 0.77, respectively) with their ability to deliver technologies to farmers (P = 0.01 and 0.05). Both the frequency of extension contacts with the farmers and the number of sub-sectors covered by extension training have positive and significant correlation with the income of farmers, (P=0.05). Eighty percent of the respondents rated the U.A.E.S. to have made favourable impact on their job performance. Some of the problems in the implementation of U.A.E.S. in Borno State included irregular release of appropriate research findings in fisheries and agro-forestry sub-sectors as well as untimely provision of their blue print or research protocol. It is recommended that research findings in the non-crop sub-sectors be released early enough and regularly while extension agents be giving the opportunities to go for the fresher courses so as to abreast them of new development in agriculture.

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INTRODUCUTION

Several extension strategies have been tried as linkage between research and farmers in Nigeria (Madukwe and Ayichi, 1997). However, it was observed that operating several parallel extension services separately for crops, livestock, fisheries and agro-forestry was a serious waste of man power, funds and other resources. Unnecessary frequent visits with conflicting messages by extension agents end up confusing farmers (Mijindadi et al., 1986).

The unification of agricultural extension service was therefore adopted at the start of the National Agricultural Technology Support Project (NATSP) in 1993 in order to curtail the unnecessary waste and to facilitate the delivery of agricultural extension messages to farming communities through a single extension agent. Consequently, staff of various professional background that mainly pertain to crops, livestock, fishery and agro-forestry were seconded by the State Ministry of Agriculture to Borno State Agricultural Development Programme for the accomplishment of the Unified Agricultural Extension System (UAES). Essentially, in the U.A.E.S, a single extension agent delivers all the technologies relating to all sub-sectors of agriculture to farmers. This takes less of the farmers' time. It also creates less confusion as a single extension agent finds it easier to reconcile his areas of different points. More importantly, the U.A.E.S. suggests that feasibility of technology and potentials of innovations should be tested either on farmers' fields or with full participation of farmers (Oyedukun, 2002).

This system of extension was designed to ensure effective implementation of extension delivery both in terms of cost to the government and convenience to farmers, (Nasiru et al., 2001). For this to be achieved the extension agent is expected to have broad knowledge on all the sub-sectors of Agriculture (Asala, 1994).

Huge sums of money have been ploughed into the agricultural extension service in Nigeria (Ogunbameru, 1986). Whereas it is hard earned public money that is invested in the U.A.E.S., has been no empirical assessment of the performance of the extension agents operating the system carried out by an independent person in Borno State. There is, therefore, the need to carry out such an independent assessment.

The main focus of the study is to assess the performance of extension agents under the Unified Agricultural Extension System in Borno State. The specific objectives are to:

(i) analyse the socio-economic characteristics of extension agents;

(ii) assess the training and logistic support given to extension agents in the various sub-sectors of agriculture;

(iii) assess the impact of the U.A.E.S. based on the opinion of extension agents;

(iv) identify problems impending the operation of U.A.E.S. in Borno State.

METHODOLOGY

Multistage random sampling technique was used in selecting the respondents. The State was divided into three Agricultural Zones- Southern Borno, Central Borno and Northern Borno. Three project areas were selected from each zone and five extension agents were in turn selected from each project area, giving a total of 45 extension agents. Forty-five copies of structured questionnaires were administered to the selected extension agents out of which 40 questionnaires were satisfactorily completed and used for this study.

The collected data were analysed using frequency distribution, percentage and correlation coefficient. Correlation coefficient was used to measure the degree of association between certain variables. The significance of the correlation coefficient were tested at $P \leq 0.05$.

RESULTS AND DISCUSSION

Socioeconomic Characteristics of Extension Agents

Data on the socio-economic characteristics of the respondents are shown in Table 1.

The result reveals that 85% of the respondents are male while 15% are female. The obvious reasons for the high male to female ratio is that the nature of extension work is stressful and only in rare instances do female venture into it. The few female respondents are mostly engaged in extension activities that are less field intensive, such as poultry management, rabbi try and home economics.

Ninety-five percent of the respondents are within the age range of 25 to 44 years while 5% are above 44 years of age. This suggests that majority of the respondents are within the active age range and hence better extension work output is expected from them.

Results of educational level revealed that at the time of their appointment, 78% of the respondents had Secondary School Certificate or Teacher's Grade II Certificate while 22% of them had Ordinary National Diploma (OND) or National Certificate of Education (NCE). At the time of this study, however, 5% of the respondents had Secondary School Certificate, 40% had OND/NCE, 43% had Higher National Diploma (HND) and 12% had Bachelor of Science Degree in Agriculture. This indicates that about 95% of the respondents have received higher educational training under the operation of the U.A.E.S. in Borno State. Since a greater proportion (95%) of the extension agents have acquired post secondary school certificates, their standard of professional input on the job is expected to be high. This agrees with Yamel (1991) in his statement that extension agents are expected to receive broad knowledge on crop, livestock, fishery, agro-forestry and other related fields.

TABLE 1: Percentage Distribution of the Socioeconomic characteristics of Respondents. n = 40

Socio-economic variable (%)	Frequency	Percentage
Sex		
Male	34	85
Female	6	15
Age in years		
25 – 34	19	48
35 – 44	19	48
Above 44	02	04
Educational background on appointment		
School certificate / T.C. II	31	78
OND / NCE	09	22
Educational background at present		
School certificate / T.C. II	02	05
OND / NCE	16	40
HND	17	43
B.Sc. in Agriculture	05	12

Source: Field Survey 2004

Training Received in the various subsector of agriculture by the Extension agents

The distribution of respondents according to training received in the various agricultural sub-sectors is shown in Table 2. Thirty-eight, representing 95% of the respondents that received training had training in relation to crop production, 35 (88%) had training in livestock, 28 (70%) had training in fishery while 26 (65%) had training in agro-forestry. Comprehensive knowledge in all the sub-sectors of agriculture by the extension agents under the U.A.E.S is the main difference between them and extension agents that operated under the past extension approaches (Asala, 1994). As such, the extension agent is expected to have broad knowledge on all the sub-sectors of agriculture. Training helps in building national capabilities for agricultural research and food production in Africa by increasing crop of competent research and extension workers (Ajayi, 2001).

TABLE 2: Distribution of Extension Agents according to Training Received in the various Sub-sectors of Agriculture. n = 40

Area of training	Frequency	Percentage *
Crop	38	95
Livestock	35	88
Fishery	28	70
Agro-Forestry	26	65

Source: Field survey, 2004.

Multiple responses existed, hence % > 100

Logistic Support given to extension agents

Data on logistic support supplied to the respondent to enhance their performance under the UAES are shown in Table 3. The result revealed that 83% of the respondents had access to chart as a means of enlightening their clients (farmers), 5% were provided with cinema vans, 20% had audio facilities, 53% were given required inputs to conduct trials (Small Plot Adoption Techniques, Method and Result Demonstration) and 38% were provided with residential accommodations.

TABLE 3: Distribution of Respondents according to Logistic support given to them. n = 40

Type of logistic support given	Frequency	Percentage (%)*
Charts	33	83
Cinema vans	02	09
Audio facilities	08	20
Trial inputs	21	53
Residential accommodation	15	38

Source: Field survey, 2004.

• *Multiple responses existed, hence % > 100.*

Impact of educational level and technological support on the performance of the respondents

Table 4 depicts the correlation coefficient (r) between the educational level of the respondents and their ability to deliver technological packages to farmers. The study revealed a positive relationship between the level of education of the respondents and their ability to deliver technological recommendations in all the sub-sector agriculture to farmers. The correlation coefficient (r) value of 0.81 is significant at 0.01 level. This indicated a highly positive correlation between the educational level of extension agents and their ability to operate under the multi-sectoral nature of U.A.E.S. The table also reveals a positive correlation between the logistic support given to extension agents and the technologies disseminated by the extension agents to farmers, with correlation coefficient (r) value of 0.77 at 0.05 level of significance.

TABLE 4: **Correlation Coefficient (r) between Educational level of Extension Agents and their ability to deliver Technology to Farmers in the various Sub-sectors**

	Y
X_1	0.810**
X_2	0.77*

** *Significant at 0.01 level*

* *Significant at 0.05 level*

where

X_1 = Level of education of extension agents

X_2 = Variety of Logistics given to extension agents

Y = Number of technologies passed by extension agents to farmers.

Impact of the Unified Agricultural Extension Service Systems

Overall rating of the impact of the U.A.E.S. by the respondents is shown in Table 5. Eighty percent (80%) of the extension respondents opined that the introduction of the U.A.E.S system has made to a high extent satisfactory impact on the performance of their carrier while 12% of them were of the opinion that it has impacted their performance just to some extent. Eight percent were of the view that the introduction of U.A.E.S. has no impact on their job performance. This may not be unconnected with their initial background in only one aspect of agriculture.

TABLE 5: Overall rating of the impact of Unified Agricultural Extension Service by Extension Agents. n=40

Overall Impact	Extension Agents rating of U.A.E.S.	
	Frequency	Percentage (%)
To a high extent		
Favourable	32	80
To some extent favourable	05	12
No impact	03	08

Source: Field survey, 2004.

Table 6 shows the correlation coefficient (r) between the frequency of contacts of the respondents with farmers and their income, as well a the correlation coefficient (r) between the number of sub-sectors covered by extension training and income of the farmers. Analysis of the data showed positive correlation coefficient (r = 0.47) between the frequency of contacts of respondents with farmers and their income (P=0.05). The study also shows a positive correlation coefficient (r = 0.77) between the number of sub-sectors on which farmer received training and their level of income (P=0.05). This implies that as the number of contacts between extension agents and farmers increases, the farmers tend to learn more of the recommendations and apply the technologies to their farm practices thereby result in increased output. Again, as the number of agricultural sub-sectors on which extension training is given to farmers increases, farmers tend to maximize potentials in more sub-sectors which results in increased output invariably leading to increased income. This agrees with Oyedukun (2002), who stressed that improved agricultural output and efficiency are expected from continuous flow of technology if adopted by farmers.

TABLE 6: Correlation coefficient (r) between frequency of contacts of respondents with farmers (X_1) and income of farmers (Y) and sub-sectors covered by respondent (X_2) and income of farmers (Y)

X_1	0.47*
X_2	0.77*

* = Significant at 0.05.

X_1 = frequency of contact between extension agents and farmers.

X_2 = Sub-sectors covered by extension agents.

Y = Income of farmers.

Problems of The Unified Agricultural Extension Services in Borno State

The distribution of the problems reported by the respondent are shown in Table 7. Eight percent (8%) of the respondents reported that they have no broad knowledge in all the agricultural sub-sectors to enable them operate conveniently under the U.A.E.S system. While 55% indicated lack of blueprint as a constraint that limited their operation, 61% mentioned lack of research linkage in the other sub-sectors, especially fishery and agro-forestry as their major problems. The prevalence of these problems implies that there is still much to be done in the areas of broadening the knowledge of the extension agents in order to enable them operate effectively under the UAES system.

TABLE 7: Distribution of respondents according to the problems experienced in the operation of the Unified Agricultural Extension Service. n = 40

Type of problem	Frequency	Percentage (%)*
Lack of broad knowledge	3	8
Lack of blueprint	20	55
Irregular release of Research findings in the non-crop sub-sectors	22	61

Source: Field survey, 2004.

*Multiple responses existed, hence % > 100.

CONCLUSION AND RECOMMENDATIONS

The study assessed the performance of extension agents under the U.A.E.S in Borno State. The results have shown that the respondents have received appropriate training for their effective operation under the U.A.E.S. It has also been seen that the respondents have received logistic materials. Eighty percent of the respondents rated the impact of U.AE.S. on their job performance as favourable to a large extent. It can be concluded from this study that the level of performance of the extension agents under the U.A.E.S. in Borno state is appreciably high.

Despite the successes recorded, the following recommendations are suggested to improve on the performance:

1. Strengthening of research in the areas of fisheries and agro-forestry;

2. Ensuring the delivery of blue print early enough at the inception of any programme;

3. Provision of opportunities for extension agents to go on refresher courses.

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