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FARMERS ASSESSMENT OF THE TRAINING AND VISIT EXTENSION SYSTEM IN NIGER STATE: EVIDENCE FROM FADAMA II & III IN MOKWA LOCAL GOVERNMENT AREA OF NIGER STATE, NIGERIA

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ABSTRACT

The Training and visit (T&V) extension has been criticized for being top-down, top heavy, inefficient and ineffective. The purpose of this study therefore was to assess the effectiveness of the T&V extension in Mokwa local government area of Niger state Nigeria. Three specific objectives guided the study. A total of 450,000 farmers who had been in active production between 2004 and 2013 evidence from (FADAMAII & III) in the LGA constituted the population for the study. A four percent sample (1,800) was randomly selected for the study. A structured questionnaire was used to collect the data, data were descriptively analysis. Demographically majority of the respondents were male aged 41-50 years, and married. slightly less than 5 percent (5.0%) were literate. Majority had been in the farming system for at least 11 years (53%) and had land holding almost exclusively by inheritance (96.0%). Other results indicate that majority of respondents has contact with Extension agents occasionally, most dependents on other source of agricultural information. Respondents reported that frequent level of Extension contact is unsatisfactory. But found information given by the Extension Agents useful. Majority of the respondents were aware of recommended agricultural technologies.

Keywords: T & V extension, Effectiveness of T & V, Farmer-extension, Agricultural technology adoption, Extension contact, *Extension Agents.*

Contribution/ Originality

This study contributes in the existing literature of Farmers Assessment of the Training and Visit Extension System in Niger State This study uses new estimation methodology of questionnaires. This study originates new formula of ways to improve training of farmers in Niger State as well as others. This study is one of very few studies which have investigated Farmers Assessment of the Training and Visit Extension System in Niger State. The paper contributes the first logical analysis in Agricultural Extension The paper's primary contribution

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is finding the problem of poor organization dilution of efforts This study documents the approach of reaching with extension information and for the purpose of teaching farmers improved farm methods should be overhauled.

1. INTRODUCTION

1.1. General Background

Generally in Nigeria the production of food crops was not considered a serious problem before independence and the little support provided by government was directed at export crops. Such as cocoa, palm produce, rubber, cotton and groundnut. The first significant indication of food shortage appeared during the first decade of independence. The widening gap between demand and supply of agricultural produce and the rice in food process and decline in foreign exchange earnings from agricultural exports since early 1970s bore eloquent testimony to the decrease in agricultural production. The trend continued well in to the late 70s and 80s. since the Nigeria agricultural has been unable to regain its enviable pre-independence status. To counter the decline of the agricultural sector, the Nigeria government has designed a variety of intervention strategies over the years Food and Agriculture Organization FAO (2009) the main thrust of these strategies has been two –fold: fist to increases the supply of agricultural produce to satisfy domestics food needs as well as provide surplus for exports: second to increase the income of farmers and improved their standard of living, in spite of the plethora of policies and programs. Nigeria agricultural has continued to perform below expectation. The agricultural development project (ADPs), popularly known as World Bank projects were initiated as enclave projects in 1975. The relatives sources of the first generation ADPs encouraged the Nigerian government to adopt the ADP system as the main strategy for promoting agricultural development at the small-scale level (Kangiwa, 2002).

1.2. Problem Statement

The T&V extension system was introduced in all the World Bank-assisted ADPs to solve the problem of poor organization dilution of efforts. Inadequacy of training, inappropriateness and untimeliness of messages inherent in the conventional Extension system Aduwuyi (2004). According to Akande (2009). The T&V system is based on the premise that a combination of factors, such as the right technology, effective and timely delivery of messages, regular extension farmers contact and regular training are pre-requisites for an effective agricultural development program. Result of resent evaluation of the effectiveness of the T&V extension have been mixed . Atala (2004) found that in Sobo-gari Zaria Kaduna State, two years after the introduction of contact farmers, a key element in T & V extension, their effectiveness declined whereas in KaKau-Daji the reverse was the case. Umar and Ismaila (2011) ported that the low rate of agricultural technology adoption was usually due to recommended technologies: in appropriateness and limited access to recommended technologies. According to Ekong (2003), Extension in Nigeria is at the cross-roads mainly because of the centralization of farmer-level Extension farmers in the

village extension Agents (VEAs) who are expected to be jacks of all trade and masters of all. Consequently, this study was undertaken to determine the effectiveness of the T&V extension in Mokwa local government area of Niger State, Nigeria.

2. PURPOSE AND OBJECTIVES

The purpose of the study was to determine the effectiveness of the T&V extension in Mokwa LGA, of Niger state. Specific objectives were to:

1 Identify the demographic character of extension clientele in Mokwa LGA

2 Determine farmer extension contact in Mokwa LGA

3 Determine the level of Agricultural Technology adoption in Mokwa LGA

3. METHODOLOGY

3.1. Study Area

Located 218 km from Minna, the Niger State Capital City, Mokwa Local Government Area (LGA) has a population of 244, 808 and an area of 2,313km^2 .It has an agrarian economy that produced staple crops such as Maize, G/corn, Millet, Sorghum and Rice.

4. POPULATIONS AND SAMPLE

All the farmers who had been in active production between 2004 and 2013 (FADAMA II & III) in the LGA constituted the sampling frame for the study of the 45,000 farmers who were eligible to participate in the study, 1800(4%) were randomly selected.

4.1. Data Collected and Analysis

A questionnaire develop on the basis of relevant literature and field experience, was used to collect pertinent data. Demographic and situational characteristics of farmers, Extension farmer contact, and agricultural technology adoption data were allocated frequency distribution and percentage were used to analysis the data.

5. RESULTS AND DISCUSSION

Result and discussion of the study are presented in three session, namely: 1) demographic characteristics; 2) extension contact and 3) agricultural technology adoption

5.1. Demographic Characteristics

Demographic characteristics of respondents are presented in table 1 majority of the famers (80%) were males an indication that the traditionally recognized "visible" human input in the agricultural sector is the male contribution. The observation support the view that agricultural continues to be a male preserve Ekong (2003) and the involvement of women's work is invisible and unrewarded Ekong (2003). Although it is clear that women are responsible for at least 70

percent of farming activities in almost communities in Nigeria Tale (2007). Their representation in formal agricultural activities, such as extension is negligible (FAO, 2009).

5.2. Age

Farmers aged between 31-50 years constituted the bulk (80%) of the respondents. The relative youth of the farming labour should provide a favourable environment for the adoption of recommended farm practice. This is because, compared to their elders, more cosmopolitan

5.3. Marital Status

Most (90-5%) of the respondents were married; a fact that may suggest a high degree of level headiness and a great capacity for sound rational decision among the farmers in the present study. This factor is likely to encourage the sustainability of adoption decisions.

5.4. Education

It was found that a total of 56.5 percent (1017) in the study area have no access to formal education. The implication of this result implies that the low level of formal education is obviously a disadvantage to the respondents due to the fact that recommended agricultural practices would have to be communicated to these respondents in native dialects. This view is in line with the findings of Adepoju and Umar (2007) who revealed that formal education enables every individual to gain knowledge and skills and this increase their power of understanding.

5.6. Farming Experience

More than 50 percent (53%) had at least 11 years of farming experience that a considerable proportion of farmers in the sample had more than a decade of farming experience suggests that most people in the area must have started farming in their youth and regard it as a way of life. The length of experience in farming is probably an indicator of a person's commitment to agriculture. It may not necessarily predispose him to adoption of new practices. It is more logical to expect veteran famers to be less receptive to extension messenges. The observation is a strong case in favor the need for government at all levels and other origination interested in agricultural development to design more effective strategies to attract youth to agriculture and help them to make a career of it

5.7. Land Tenure

Most of the respondents (96%) Acquired their farmlands by inheritance, an indication that majority were indigenous farmers. The fact that most of the farmers were indigenes of the area may ensure the sustainability of adopted practice, but it may be necessary to liberalize the land tenure system so as to guarantee even non-indigenous access to land. Especially for Agricultural Development.

Table-1. demographic characteristics of the respondents (n=1800)

Characteristics	Frequency	Percentage
Gender (Number)		
Male	1360	20.0
Female	440	80.0
Age (years)		
21-30	21-30	10.6
31-40	31-40	13.3
41-50	41-50	66.7
Above 50	Above 50	4.4
Marital Status		
Married	1629	90.5
Single	45	2.5
Divorcé	10	6.0
Widows	116	1.0
Educational level		
Primary	225	12.5
Secondary	90	5.0
Education	450	25.0
Quranic Education	18	1.0
None	1017	56.5
Faring experience (years)		
6-10		15.5
1-5		31.5
11and above		
Land Tenure		
Inheritance	1782	96.0
Purchase	27	1.5
Lease	45	2.5

Source: Field Survey NAMDA 2013

5.8. Famer-Extension Contact

Famer-Extension contact data are presented in Table 2

5.9. Awareness of Extension Services

Majority of the respondents know the village Extension agent (VEA) who was responsible for the delivery of Extension massage in their communities, a key aspect of the regarded famer extension contact. The observation here clearly indicates that awareness of the Niger state Agricultural mechanization and development Authority (NAMDA) extension services was wider spread (World Bank, 2013) Knowledge of the VEA serving as community means that the agent can be easily contacted whenever production and other assistance is needed. Although information diffuses much faster among farmers through interpersonal communication channels. Their ability to get family information to solve specific production problems depend on direct to extension agents.

5.10. Frequency and Adequacy of Extension Visits

Majority of the respondents reported that frequency of extension visits very often (24.0%), often (6.0%) occasional (50.05) and non-existent (20.0%) given this situation, an overwhelming

majority of the respondents that the visit was not adequate: only 25 percent expressed satisfaction with visits. further indication of the inadequate famer-extension contact was the ratio of families per VEA. Each VEA was responsible for about twice the numbers of farm families he/she should visit on a regular basis. This meant that most of the famers had to rely on "second –hand" information from contact famers for who spats were established. The dissatisfaction with extension visit has implication for provision of effective extension service to farmers. All most 100 percent (97%) of the respondent indicated that the information given by their responsible VEA was useful. Respondent further revealed that as a result of their inter action with VEAs, they could appreciate their problems better and understand the reasons for their success or failure as a farmers.

Table-2. Famer-extension contact (n-1,800)

Factors	Frequency	Percentage
Frequency of visit		24.0
Very often (fortnight)	432	6.0
Often (once a month)	108	50.0
Occasionally	900	20.0
Quality	360	
None	432	
Adequacy of visits		
Adequate	450	25.0
Not adequate	1350	75.0
SPAT Established[1]	1,355	
Farm families /VEA[1]	3,650	
Cost/farm family (₦)	20.90	
Usefulness of information		
Useful	1650	3.00
Not useful	150	97.00

Sources: NAMDA 2013. Physical Achievement Reports

5.11. Sources of Extension Information

As revealed in Table 3, respondents reported that the most important sources of information were friends / reelections (75%) radio (60%), contact famers (53%), extension agents (43%) field days (38%) and posters (12%). Data in Table 3 underscores contain basic facts of effective extension communication.

Table-3. Source of Extension; Information (n=1800)

Information Source	Frequency	Percentage
Extension agent	1080	43.0
Friends/relations	1350	75.0
Radio	776	60.0
Contact famers	954	53.0
Field days	684	38.0
Posters / pamphlets	216	12.0
Television	54	3.0

Source: NAMDA field survey 2013
Total exceeds 1,800 and 100% due to multiple responses.

One, peer and family relationships greatly influence the dissemination of agricultural messages, an emphasis of the social dimension of agricultural technologies transfer Yahaya (2002). Two, the comparatively fewer number of famers for whom contact famers served as sources of extension information raises the question of the representatives of contact famers Yahaya (2002). In most communities the criteria used for the selection of contact farmers are material well-being and progressive farmer status. Such farmer may be socially distant from majority of the farmers, there by inhabiting the tickle-down effect of the agricultural dissemination strategies in which the contact famer is the key factor. Three, illiteracy continue to be an important negative influence on agricultural development. A famer that can read and write can follow the directions for adoption of a recommended practice more effectively. Formal education is necessity for any meaning full rural development program and should be seriously consider by the NAMDA as a major need of famers in the study area. Finally, as Yahaya (2002) put it, an extension service is only as effective as the communication between researchers, extension agents and famers.

5.12. Awareness and Adoption of Recommended Practices

The recommended practices that had the highest level of awareness were in descending order (Table 4): fertilizer use (50%), improved crop varieties (65%), control of small ruminants parasite (50.82%) and use of chemical preservatives (47.22%).The level of awareness of recommended practices reflects the initial institutional emphasis of the Niger state agricultural and mechanization Development Authority (NAMDA) at the inception and subsequent development of the culture of the dependence on inorganic fertilizer. NAMDA embarked on the instruction of high-yielding and disease resistant crop varieties as soon as it was established. The emphasis on crop production, almost the exclusive of livestock, followed the norm in other ADPs where extension is synomous with crop extension. Relatively low awareness, level of mechanized land preparation (41.67%), herbicide application (35.0%), used of appropriate fishing gear (31.0%), and erosion control (25.0%) was observed. the observed awareness and adoption level of the recommended agricultural practices in this studies reflect the adoption behavior of small-scale famers. One small-scale famer are resource-poor and find it difficult to adoption capital-intensive innovations, such as mechanized land preparation and use of appropriate fishing gear with 8 and 5 percent, respectively, of the respondents second, adoption of preventive innovation, such as erosion control (22.0%), use of chemical preservation (12%), and herbicide (11%) tends to be low due to fatalism. Third, innovations such as fertilizer and improved crop varieties, which have immediate demonstrable results, are more reality adopted, and required as long gestation period before observable changes.

Table-4. Awareness and Adoption of Recommended Agricultural Responses

Recommended Practices	Aware	Adopted
Improved crop varieties	1170	702
Crop spacing	1134	567
Fertilizer use	60.0	50.0
Herbicide application	1530	1370
Mechanical land preparation	630	70
Use of chemical preservation	35.0	11.11
	750	60
	41.67	8.0
	850	102
Small ruminants parasite control	47.22	12.0
	905	272
Used of appropriate fishing gear	50.28	30.05
	558	28
	31.0	5.0
Erosion control	450	99

Source: NAMDA field survey 2013

[a]Numbers represent frequencies, including multiple responses.

[b]Number respondents percentages

[c]Number represents a proportion of "aware" category.

6. SUMMERY, CONCLUSIONS AND RECOMMENDATIONS

The results of this study showed that majority of the famers in Mokwa LGA were male and that more than 50 percent were illiterate. The farmers were relatively young aged 31-50 years and had been farming for at least 11 years. Majority of the respondents 75 present acquired farm lands by inheritance. Although majority of the farmer in the study area know the extension agents, only a few used them (extension) as their source of agricultural information. Respondents were not satisfied with the frequency of visit by the extension agents, as 50 percent reported being visited occasionally.

However, the few famers visited found information given to them very useful. Base on the findings in this study the following recommendations are made

1. In order to enhance agricultural production more women famers should be selected as contact famers in the study area
2. Farmer education should be emphasized by the government and non government organization for farmers in the study area in order to facilitate a faster rate of adoption of recommended practices.
3. The individual contact approach of reaching with extension information and for the purpose of teaching farmers improved farm methods should be overhauled. The individual contact approach should be replace with the group contact approach

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