



Crop Farmers Constraints to Access Agricultural Extension Services in Northern Taraba State, Nigeria

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ABSTRACT

The study assessed crop farmers' constraint to access agricultural extension services in Northern Taraba State, Nigeria. Specifically the study assess agricultural extension services desired by crop farmers and identify the constraints experienced by crop farmers in accessing agricultural extension services in the study area. Purposive and simple random sampling techniques were used to select one hundred and sixty one (161) farmers for the study, comprising of 65, 65 and 39 from Ardor-Kola, Lau and Zing Local Government Areas respectively. Frequency, percentage, mean and ranking were used to analyze the data for the study. The result on desires agricultural extension services security (100%), farm planning (95.7%), farm tools and machineries (90.1%), storage and post-harvest handling (87.6%) respectively. Among the constraints experienced by farmer's to access agricultural extension services were agreed to be technological issues among extension agents, linkage mechanism problems, inappropriate technical skills, poor transportation network, weather and climate, inadequate motivational schemes, crisis and communication/language barriers Based on the findings the researcher recommended that more extension workers needs to be enrolled in the agricultural sector so as to meet up with the high demand of extension services, government and NGOs should proffer communicable means of presenting information to rural farmers, good transportation network should be provided to extension agents in the state so as to enable them convey the remote areas and extension agents need to be provided tight security so as to enable them travel to various villages to disseminate agricultural information and innovations to the farmers.

INTRODUCTION

Smallholder crop farming in many developing countries faces challenges from several factors. These can be broadly classified into ecological, economic, social, and institutional challenges Kerr *et al.*, (2020) reported that a large proportion of smallholder farmers has poor management skills due to a lack of training. Limited access to extension services by smallholder crop farmers, especially those in remote areas, is a key limitation for their commercialization. Literature is replete with shortfalls associated with the provision of public extension services to smallholder farmers in developing countries. Generally, public extension systems in developing countries are heavily under-resourced, over-stretched, lack skilled human resource, and infrastructural support, and are faced with an overall decline in investment. Furthermore, the systems are characterized by high farmer-to-extension ratios as the number of trained extension agents is limited. According to Kerr (2020) who noted that the provision of extension services has been disrupted by the COVID-19 pandemic, while Cook *et al.* (2021) argued the persistent exclusion of social and political factors as a major factor impacting the performance of extension. Therefore, the reduced impact from extension services suggests the importance of characterizing the existing extension approaches and developing measures to revolutionize them.

The role of agricultural extension and advisory services is pertinent to effecting change and driving the rural development imperative through smallholder agricultural production. Across Africa and Asia, agricultural extension has long been one of the major conduits of agricultural development and transformation



leading to rural poverty reduction and increased food security. Despite extension having been criticized for failing to deliver such results adequately, it is perceived to have remained the bedrock of smallholder farmers' production. This is because it brings farming information, inputs, facilitates access to markets and credit facilities, and promotes the organization and training of smallholder farmers and producer groups for improved production, livelihoods, and the ensuing growth in household income and well-being. According to cook *et al.*, (2021), agricultural extension also provides a framework through which challenges constraining smallholder farmers can be identified for further investigation and for the development and modification of solution strategies and policies which guide the farmers.

Given that technical knowledge is generated through research conducted by various research institutions and organizations, the primary role of extension is to customize and facilitate the dissemination of the research findings to farmers. Thus, Wesley and Faminow (2014) and Danso-Abbeam *et al.* (2018) described the extension as a bridge between scientists, who strive through technical means to find solutions for farmer challenges, and the farmers who employ the solution measures to support their farming systems.

OBJECTIVES OF THE STUDY

The broad objectives of this study was to assess Crop Farmers Constraints to access Agricultural Extension Services in Northern Taraba state, Nigeria while specifically, the study seek to:

- i. assess the agricultural extension services desired by crop farmers in the study area; and
- ii. Identify the constraints experienced by crop farmers in accessing agricultural extension services in the study area.

METHODOLOGY

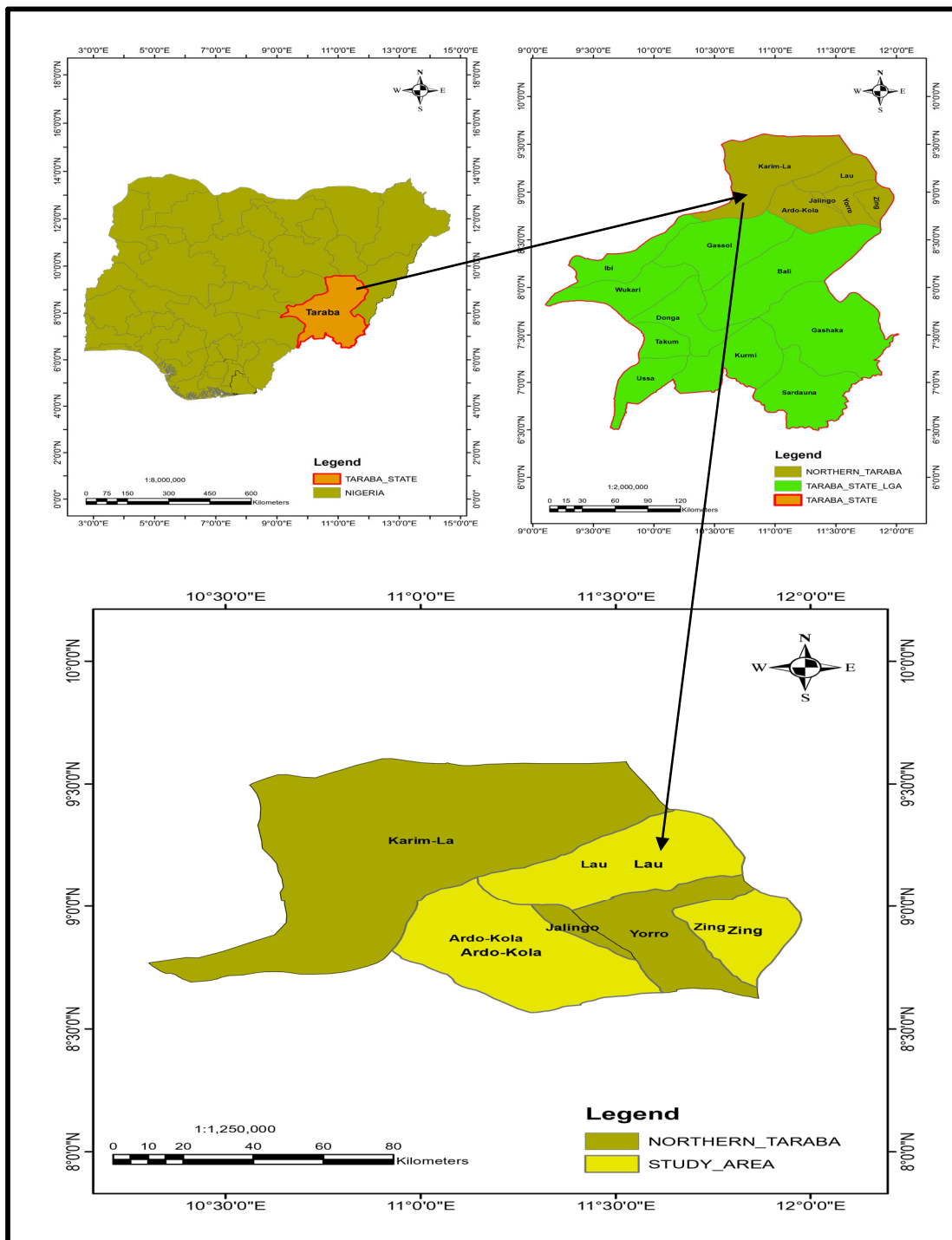
Taraba State was created on August 27th, 1991 when the Babangida Military Administration carved it out of the defunct Gongola State. The State derives its name from one of the three major rivers and covers a land area of 60,291.82 square kilometres. At inception, the state comprised only ten Local Government Areas namely; Jalingo, Donga, Zing, Lau, Karim Lamido, Sardauna, Bali, Gashaka, Wukari and Takum created on 27th August 1991 (Taraba State Executive Diary, 2021).

The state lies roughly between latitude 6^o30'N and 9^o36' North and longitude 9^o 10'50' East of the Greenwich meridian. It is bounded by Bauchi and Gombe and Adamawa States in the north-east, and by Plateau State in the north-central. The state is further bounded to the north central by both Nasarawa and Benue States, while it shares an international boundary with the Republic of Cameroun to the south and south-east. Taraba State has population of Two Million, Three Hundred Thousand, Seven Hundred and Thirty-Six people (2,300,736), with a projected population figures of Three Million, Eighty Seven Thousand, Two Hundred and Nine people (3, 087, 209) by 2016 (Taraba State Executive Diary, 2021).



Map of Taraba State Showing the Study Area

Source: Cartographic Dept., Ministry of Land and Survey Jalingo, 2021



Method of Data Collection

Data for this study were obtained from primary source. Primary data were collected using structured questionnaires which were administered to the farmers.

Sample Size and Sampling Techniques

Purposive and simple random sampling technique was employed to select arable crop farmers for the study.

Stage I: Purposive selection of three (3) out of the six (6) Local Government Areas (Ardo-Kola, Lau and Zing Local Government Areas) in Northern Taraba State that are well known for their participation in arable crop farming.

Stage 2: Purposive selection of five (5), five (5) and three (3) villages each from Ardo-Kola, Lau and Zing whose major populace were farmers to give a total of 13 villages respectively.

Stage 3: A random sampling technique was used to select 65, 65 and 39 farmers from Ardo-Kola, Lau and Zing Local Government Areas to tally

Stage 4: Finally 13 farmers were selected per community using random sampling technique, in all 169 farmers were involved in the study. However, only 161 questionnaires were finally retrieved and analysed as eight questionnaires could not be accounted for.



Method of Data Analysis

Descriptive were used in the analysis of the data. Descriptive statistics in the form of frequency, percentage and mean were used to analyze objectives.

MEAN

$$\bar{X} = \frac{\sum fn}{N}$$

Where;

\bar{X} = Mean score

Σ = Summation

F = Frequency of response mode

n = Number of farmers of farmers to the item

N = Number of response

The decision rule that served as basis for acceptance or rejection was determined based on; Decision rule (DR) of 4- point rating scale = $(4+3 + 2 + 1)/4 = 2.5$

The 4-point rating scale was used to describe the level of farmers' access to agricultural extension services in Northern Taraba state as highly (4), moderately (3), low (2) and not at all (1).

A class interval of 0.05 was used to determine the upper limit of the mean, to determine the cut-off point.

The upper limit $2.0 + 0.5 = 2.5$

The lower limit $2.0 - 0.5 = 1.95$

Therefore responses with mean score (\bar{X}) up to the above 2.45 were regarded as good while those mean score (\bar{X}) below 1.95 were also regarded as not so strong or good.

RESULTS AND DISCUSSION

Crop farmers desire for agricultural extension services

Result in Table 1 shows desires agricultural extension services in the study area. The result presents that 79.5% of the farmers desired services of improved seeds, 72.7% desires services of pest and disease management practices, 81.9% desires services on fertilizer application, 93.1% desires services on weed management and control, 83.6% desires the extension services of storage and post-harvest handling, 99.4% desire security, 62.1% desires facilitation of interactions with other stakeholders, 54.0% desires knowledge on farm planning while 94.4% desires knowledge on marketing strategies. This findings implies that farmers in the study area desires extension services at an extreme level in order to attain more yield and productivity in their practices. This is similar to the findings of Msuya *et al.* (2017) and Ganawah and Kamara (2021) who similarly reported that farmers in the study area are willing to access extension services which could promote their production activities and make their farming practices productive.



Table 1: The various desired agricultural extension services in the study area

Desired extension services	Yes	No
Improved seeds	128 (79.5)	33(20.5)
Pest and Disease management	117(72.7)	44(27.3)
Fertilizer application	132(82.0)	29(18.0)
Weed management	150(93.1)	11(6.9)
Storage and post-harvest handling	139(86.3)	22(13.7)
Farm tools and machineries	160(99.4)	1(0.6)
Security	142(88.2)	20(12.4)
Facilitate interaction	100(62.1)	61(37.9)
Farm planning	87(54.0)	74(46.0)
Marketing strategies	152(94.4)	9(5.6)

Figures in parentheses are percentages

Source: Field Survey, 2021

Constraints experienced by crop farmers in accessing agricultural extension services

Table 2 shows the constraints experienced by crop farmers in accessing agricultural extension services in the study area. The results of the findings reveal that, among the major constraints experienced Crisis/conflicts with the mean score 3.57 were recorded highest follow by ratio of extension agents to farmers 3.5, literacy level 3.35, Poor transportation network 3.25 and Inappropriate technical training skills 3.12 respectively while the lowest record constraints were on drought 2.40. This implies that farmers in the study area do not benefit extension services due to the problems surrounding the effective flow of the services. This corroborates with the results of Ugwumba and Okechukwu (2015), Muktar *et al.* (2016), Akumbole *et al.* (2018), and Mohammed *et al.* (2020) who reported that inadequate

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technologies, staff ratio, communal conflicts and inaccessible road network are the problems affecting extension service delivery to rural farmers in Nigeria.

Table 2: Distribution of crop farmers constraints experienced in accessing agricultural extension services

Constraints	SA	A	SD	D	mean
	42(1.04)	58(1.08)	32(0.3.9)	29(0.18)	2.69
Linkage problems	25(0.62)	56(1.04)	78(0.97)	2(0.01)	2.64
Inappropriate technical training skills	61(1.52)	58(1.08)	41(0.51)	1(0.006)	3.12
Weather and climate	28(0.68)	79(1.47)	50(0.62)	4(0.02)	2.8
Poor transportation network	74(1.84)	68(1.27)	2(0.03)	17(0.11)	3.25
Culture/traditions	42(1.04)	90(1.68)	19(0.24)	10(0.06)	3.02
Inadequate motivational schemes	55(1.37)	59(1.09)	47(0.58)	0(0.0)	3.04
Ratio of extension agents to farmers	82(2.03)	79(1.47)	0(0.0)	0(0.0)	3.50
literacy level	75(1.86)	70(1.30)	16(0.19)	0(0.0)	3.35
Communication/language barrier	47(1.17)	24(0.44)	66(0.82)	24(0.15)	2.58
Crisis/conflicts	101(2.51)	56(1.04)	0(0.0)	4(0.02)	3.57
Drought	25(0.62)	80(1.49)	24(0.29)	32(0.001)	2.40

Source: Field Survey, 2021

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, the following conclusion was drawn with regard to desires agricultural extension services in the study area .Farmers desired services of improved seeds, desires services of pest and disease management practices, desires services on fertilizer application among others. Major constraints experienced by farmers were Crisis/conflicts, highest ratio of extension agents to farmers, literacy level, Poor transportation network and inappropriate technical training skills respectively. On the basis of the major findings, the following recommendations were made:



1. With the emergence of farmers-herders clashes in some of the areas, extension agents need to be provided tight security so as to enable them travel to various villages to disseminate agricultural information and innovations to the farmers.
2. Farmers need to be educated by government or non - governmental organization on the effect cause by conflict and how to manage them.

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