

<https://doi.org/10.33003/jaat.2023.0902.19>

TRAINING NEEDS ANALYSIS OF WOMEN IN AGRICULTURE (WIA) EXTENSION OFFICERS IN KANO STATE, NIGERIA.

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ABSTRACT

The study analysed the training needs of Women in Agriculture (WIA) extension officers in Kano State, Nigeria. A multi-stage sampling technique was used to purposively select two local government areas (LGAs) from the three agro-ecological zones in Kano based on the intensity of the WIA officers, making a total of six LGAs for the study. From the six LGAs, 74 WIA officers were randomly selected for the study. Data were collected through the use of structured questionnaires and analysed using frequency counts, percentages, and the mean. Results revealed that the average age of the women was 34 years, 56.8% were married, and the average household size was 9 people. 50.0% of the respondents had secondary school education and averaged 8 years of working experience as extension agents. The study further revealed that the majority of the women (95.9%) received training on crop production technology and (64.9%) on marketing agricultural commodities. It was also revealed that the WIA needs training on livestock production and disease control, ICT in agriculture, and fish farming. Conclusively, WIA officers competently perform their job in the demonstration of improved technologies and the dissemination of information. It is therefore recommended that women extension officers be trained and provided with training facilities based on their requirements.

Key Words: Training, Women, Agriculture, Extension, Needs

INTRODUCTION

Women are the backbone of the development of rural and national economies; they play an integral part in agricultural production in all parts of the world as subsistence farmers; cash crops growers, food processors and livestock owners. In some places they are primary farmers while in others they play a key role of supporting agricultural development all over the world (Efstratios *et al.*, 2019). Despite the important role women play in agriculture, rural women in Africa suffer from the highest illiteracy rates and the most visible face of poverty (Efstratios *et al.*, 2019). Women extension officers are intermediaries between research and farmers (especially women farmers) they operate as facilitators and communicators, helping farmers in their decision-making and ensuring that appropriate knowledge is implemented to obtain the best results (Chikaire *et al.*, 2018). Extension officers should possess professional competencies in many areas, which provide the critical skills and knowledge for them to be able to perform the work assigned to them. The possession of that professional competencies is achieved through training.

Training is the process of acquiring specific skills and knowledge so an individual can perform his job effectively (Jasmin *et al.*, 2016). Training is typically initiated to improve job performance as trained employees are a vital part of providing a good service to clientele (Royal Institution of Chartered Surveyors (RICS) 2012). The training of agricultural extension officers is an integral part of the overall agricultural production process (Jasim *et al.*, 2016). Training needs is a condition where there is a gap between what is and what should be in terms of incumbent knowledge, skills, attitude and behavior for a particular situation at one point in time exists

(Adolphus and Simon, 2017). Adequacy of staff training in extension work is the degree to which various methods are used by staff to transfer information to farmers (Aremu *et al.*, 2019).

Training of extension officers is a crucial part of the overall agricultural production process. Part of the duties of extension officers is to reach farmers scattered around the country with updates on useful and practical information so as to increase agricultural production (Jasmin *et al.*, 2016). Agricultural Development Authorities (ADAs) are the main organizations charged with responsibilities of agricultural extension delivery but, it is clear that agricultural extension in Nigeria has been drastically reducing in its effectiveness over the years. This has been a major factor that has been causing the declining of agricultural productivity (Noah and Abidoeye, 2019). The above statement holds true because women play a key role of supporting Agricultural development all over the world, and also it led to many employees have failed in organizations because their need for training was not identified and provided as an important part of management function (Adolphus and Simon, 2017).

Some of the training needs of extension officers as far as women are concern are; provision of day care in training center, near training places, transport facilities and health care services.

Therefore, it become imperative to investigate, analyze and prioritize the training needs of Women Extension Officers in Kano state, Nigeria. The specific objectives are to;

1. describe the socio-economic characteristics of the women extension officers in the study area,

2. describe the job performances of the women extension officers,
3. describe the training needs of women extension officers in the study area,

METHODOLOGY

This study was conducted in Kano State, Nigeria. The State is in the Sudan Savannah agro-ecological zone of Nigeria. The state lies between latitudes 13° N in the North and 11° N in the south, and longitudes 8° W in the west and 10° E in the East. The state has a total land area of 42,592.8 square kilometres. The 2022 population of the state was estimated to be 21,200,000 people (NPC, 2022) The state is bordered to the north-west and north-east by Katsina and Jigawa states, respectively, and to the south and south-west by Bauchi and Kaduna states, respectively. The climate of the study area is tropical dry, with a mono-modal rainfall distribution averaging 600mm per annum, with most rains occurring between May and September. Air

humidity is high during the wet season and very low during the dry season. The average temperature is 29°C with a minimum temperature of 15°C occurring from November to February and a maximum temperature of 39°C occurring in March and May (Badamasi, 2014).

A multistage sampling technique was used for the study. Kano State has 44 local government areas that are administratively divided into three zones by the Kano State Agricultural and Rural Development Authority (KNARDA). The first stage involved the purposive selection of six LGAs, two from each zone, based on the intensity of women extension officers. Kumbotso and Kura were selected from zone 1, Danbatta and Ungogo from zone 2, and Wudil and Gaya from zone 3. The second stage involved a random sampling selection using the Raosoft sample size calculator at a 70% confidence level and 5% margin error, giving a total of 74 women extension offices for the study.

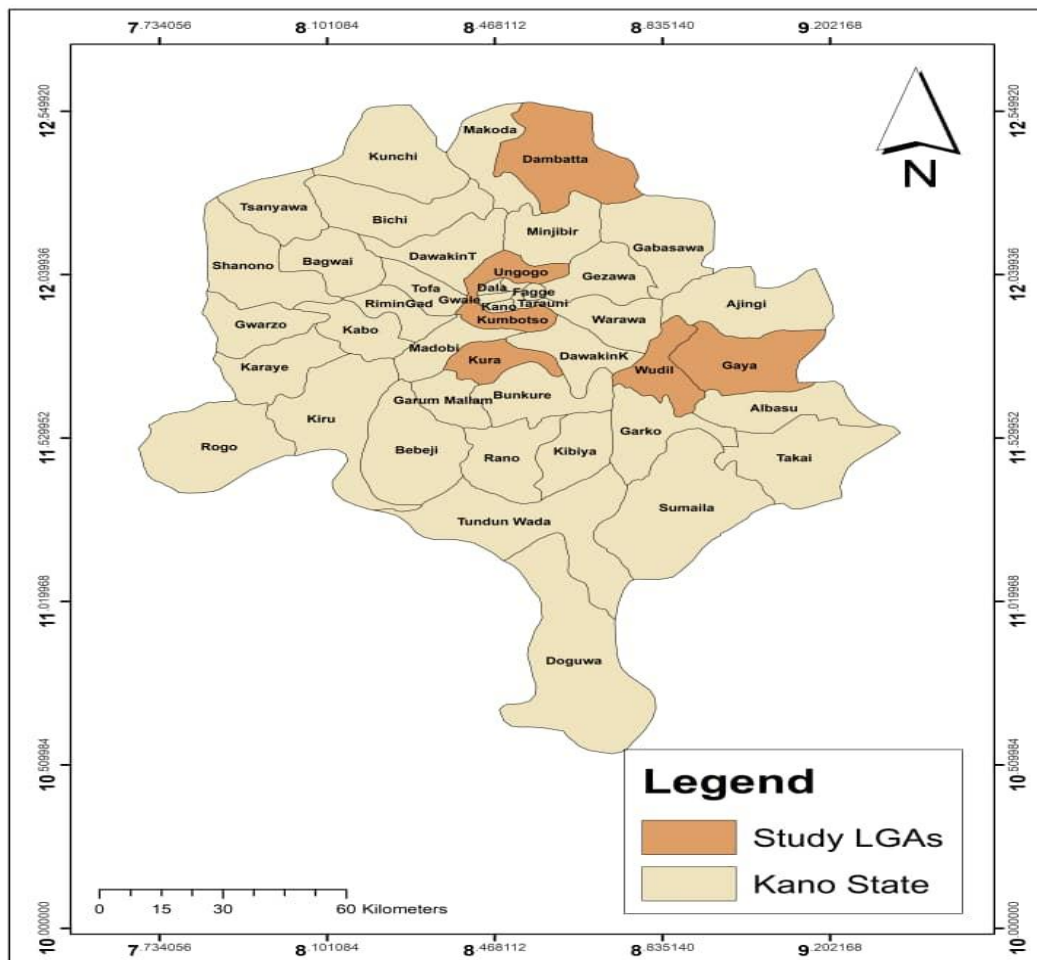


Fig. 1: Map of Kano State showing the Six LGAs Selected
Source: Cartography Lab. Geography Department, Bayero University, Kano

The elicited data was analyzed by the use of descriptive statistics such as frequency distribution, percentage, mean, minimum and maximum and mean score.

Table 1: Summary of sample frame and size of WIA Extension Agents

Zone	No. of WIA Selected
Zone One (Rano zone)	
Kumbotso	9
Kura	6
Zone Two (Danbatta Zone)	
Danbatta	15
Ungogo	9
Zone Three (Gaya Zone)	
Wudil	20
Gaya	15

RESULTS AND DISCUSSIONS

Socioeconomic Characteristics of the Respondent

The average age of the women was 34 years, with a minimum of 21 years and a maximum of 58 years (Table 2). The women were of active age and had the strength and energy to perform their duties as extension agents, which had an impact on their ability to pass on recommended practices and technologies to their farmers. This is in line with the findings of Tafida et al. (2021) who reported that the average age of the extension agents was 36 years. The majority of the women were married (56.8%), and only 12.2% were divorced. The WIA officers had a level of family responsibility, since marriage is an important social institution and also a variable tool that determines an individual's resolve to demonstrate or show a mark of social responsibility; hence, it is considered important for mature people in the African setting. This is in line with the findings of (Chimaroke and Nwafor, 2022) who reported that the highest percentage of extension agents were married. The results in Table 2 also revealed that the average household size of the women was 9 people, with a minimum of 3 and a maximum of 30. This implies that some WIAs have a large household size, which will hinder the efficiency of their work and might affect their competency and performance.

The results further indicated that about 50.0% of the women agents had secondary school qualifications, and the remaining 50% had tertiary qualifications. It is generally assumed in Nigeria that an extension job is a low-status job fit only for job applicants possessing low academic qualifications (Odu and Kayode, 2022). The results of this study do not contradict this view. The remaining 50% have tertiary education, which implies that the women agents have a good understanding of their duties and can carry out their job well. The level of education of WIA agents is important since it has a direct impact on their work efficiency. The years of experience of the female agent was one of the important variables assessed, and it revealed that the average years of experience were 8, with a minimum of 1 and a maximum of 35. This indicates that women have a substantial amount of experience in extension service delivery to farmers, which may contribute immensely to their efficiency and ease of work. Timothy (2015) reported that the length of service of an extension agent is probably an indicator of a person's commitment to the career.

Table 2: Socio-economic Characteristics of the Respondents

Variables	Frequency	Percentage
Age (Years)		
21-30	33	44.5
31-40	22	29.7
41-50	13	17.6
≥51	6	8.1
Mean	34	
Minimum	21	
Maximum	58	
Marital Status		
Married	42	56.8
Single	13	17.8
Widow	10	13.5
Divorced	9	12.2
Household Size		
1-10	53	71.6
11-20	16	21.6
21-30	5	6.8
Mean	9	
Minimum	3	
Maximum	30	
Level of Education		
Secondary education	37	50.0
National diploma/NCE	15	20.3
Higher national diploma	11	14.5
Bachelor degree	15	20.3
S.T.S certificate	7	9.5
Years of Experience (Years)		
1-5	44	59.5
6-10	12	16.2
11-15	2	2.7
15-20	6	8.1
≥21	10	13.4
Mean	8	
Minimum	1	
Maximum	30	
Frequency of Contact with Farmers		
Monthly	40	54.1
Fortnightly	34	45.9
Total	74	100

Source: Field Survey, 2020

Performances of women extension officers

Table 3 revealed that the women extension officers were able to competently perform their job in the following areas: demonstration of improved technologies ($\bar{x} = 4.65$), Proper record keeping ($\bar{x} = 4.14$), Dissemination of information ($\bar{x} = 4.70$), and Reporting activities ($\bar{x} = 4.30$). They were less competent in Assessing and compiling data on community problems ($\bar{x} = 3.83$), Market surveys ($\bar{x} = 4.10$), Facilitating workshops, seminars, and farmer field days ($\bar{x} = 3.26$), and forming women farmers groups ($\bar{x} = 3.47$). This implies that women officers were competent in many ways and would be able to establish credibility in the minds of farmers to influence changes in behaviour related to technology from research centres. This is in line with Tafida *et al.* (2021), who reported that extension staff with inadequate knowledge of subject matter lose confidence when facing farmers, which subsequently led to the rejection of an innovation.

***Table 3: Job performance of Women Extension Agents**

Tasks	Scale 5	Scale 4	Scale 3	Scale 2	Scale 1	Mean
Demonstration of improve technologies	70.3	24.3	5.4			4.65
Market survey	13.5	29.7	20.3	23.0	13.5	3.10
Proper Record keeping	35.1	37.8	27.0			4.14
Dissemination of information	74.3	21.6	4.1			4.70
Reporting activities.	47.3	33.8	17.6	1.4		4.30
Assessing and compiling data on community problems/constraints.	28.4	33.8	31.1	6.8		3.83
Facilitating workshops, seminars and farmers field day.	20.3	21.6	28.4	23.0	6.8	3.26
Forming women farmers group	29.7	25.7	14.9	21.6	8.1	3.47

Source: Field Survey, 2020

***Multiple Responses**

Likert scale 5= Excellent, 4= Very good, 3= Good, 2= Poor and 1= Very poor

Training needs of the women extension officers

The result in Table 4 shows that training was received on different agricultural activities. It was revealed that the majority of the women agents (95.9%) received training on crop production technology, (62.2%) Storage and post-harvest handling and (63.5%) value addition on agricultural commodities. The least amount of training received was in horticultural crop production (25.7%). Jasim *et al.* (2016) reported that a lack of well-trained extension staff to establish credibility in the minds of farmers can influence behavioural changes related to technology from research centres, as a result of which they may not be able to have much impact on some poor, conservative farmers who fear the risk of trying out new innovation.

***Table 4: Training attended by the women extension officers**

Training Received	Frequency	Percentage (%)
Livestock production and Disease control	42	56.8
Operation and maintenance of agricultural machineries	26	35.1
Value addition of agricultural commodities	47	63.5
Storage and post-harvest handling	46	62.2
Crop production technology	71	95.9
ICTs in Agriculture	37	48.6
Horticultural crop production	19	25.7
Record Keeping	45	60.8
Formation of Cooperative groups	44	59.5

Source: Field Survey, 2020

***Multiple Responses**

The result (Table 5) indicated that women extension officers need training in the following areas: linkage to credit formulation (\bar{x} =3.88), livestock production and disease control (\bar{x} =3.64), ICT in Agriculture (\bar{x} =3.46), communication skills (\bar{x} =3.41), fish farming (\bar{x} =3.39), and so on. This implies that the women expressed their needs for training that is relevant to the knowledge and skills required for executing extension programmes as well as responding to farmers’ needs. Training them in the related areas can build better communication skills, develop hidden talent, ensure consistent quality, provide greater focus, produce more effective or productive efforts, and clarify the concepts of agriculture-related issues. This is in line with the view of Adams (2014) that

extension agents' competence should be in accordance with the task areas in which they will be assigned to operate in order to perform successfully. Hence the importance of in-service training.

***Table 5: Training Needs of Women Extension Officers**

Tasks	HNR	NR	R	MR	HR	Mean
Livestock production and Disease control	2.7	21.0	16.2	28.4	31.1	3.64
Operation and maintenance of agricultural machineries	16.2	35.1	17.6	17.6	13.5	2.77
Value addition on agricultural commodities	5.4	18.9	35.1	27.0	13.5	3.24
Storage and post-harvest technology	4.1	27.0	25.7	18.9	24.3	3.33
Crop production technology	2.7	23.0	48.6	5.4	20.3	3.18
ICT in Agriculture	4.1	21.6	20.3	32.4	21.6	3.46
Rodent and pest control	9.5	32.4	21.6	16.2	20.3	3.05
Irrigation farming	5.4	29.7	16.2	25.7	23.0	3.31
Marketing of agricultural commodity	8.1	32.4	27.0	17.6	14.9	2.99
Fish farming	2.7	29.7	13.5	29.7	23.0	3.39
Communication skills	2.7	29.7	18.9	21.6	25.7	3.41
Linkage to credit formulation		17.6	20.3	18.9	43.2	3.88
Horticultural crop production	9.5	32.4	18.9	17.6	21.6	3.09
Record keeping	13.5	32.4	23.0	16.2	14.9	2.86
Formation of cooperative groups	13.5	33.8	17.6	14.9	20.3	2.95

Source: Field Survey, 2020

*Multiple Responses; Likert scale: HRN= Highly Not Relevant, NR= Not Relevant, R= Relevant, Moderate Relevant, Highly Relevant

Method of training needed

The result in Table 6 shows that (33.8%) preferred demonstration method of training, (20.3%) preferred workshop, (14.9%) preferred lecture and group discussion and (16.2%) preferred seminar. Overall, all the training methods were considered beneficial in training programmes. However, few of them were considered easier and understandable as stated by the women officers. Analogous results were reported by (Agriculture extension, 2007) who concluded that as per latest reports, the effects of oral presentation remain in mind 10%, visual 35% and visual and oral 65%. Similarly, there is an old proverb which states that “people may doubt what you say, but they will believe what you do” (Deanna, 2021)

Table 6: Method of training needed by the women extension officers

Method	Frequency	Percentage
Lecture	11	14.9
Group discussion	11	14.9
Demonstration	25	33.8
Workshop	15	20.3
Seminar	12	16.2
Total	74	100

Source: Field Survey, 2020

CONCLUSION

Women extension officers need training that is relevant to the knowledge and skills required for executing extension services. Also, they competently perform their job in the demonstration of improved technologies and the dissemination of information.

- They should be provided with enough facilities and equipment's for the training.
- Training needs analysis should be carried out for new recruit officers and also periodically to determine the training needs of extension officers.

Recommendations

- Women Extension officers should be trained in an area where they are less competent or the areas where they need training

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