Training Needs Assessment of Women in Small Scale Livestock Production and Its Implication for Socio-economic Empowerement in Oyo State, Nigeria

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Authors' contributions

This work was done in collaboration with all authors. Author AO initiated the project, wrote the introduction, methodology and discussed the result. Authors BFF and AAA were involved in data collection. Authors NAA and EEO were involved in data collation and analysis. All authors read and approved the final manuscript.

Original Research Article

ABSTRACT

The aim of this study was to assess the training needs of rural women in livestock production in Oyo State, Nigeria. A multistage random sampling technique was used to collect data from 180 women from two (Ibadan/Ibarapa and Ogbomoso) zones of Oyo State Agricultural Development Programme (OYSADEP) using a well structure interview guide. The data was analyzed using frequency counts, percentages and mean while chi-square was used to test the relationship

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between variables. Results from the study showed that more than half (57.5%) of women were into poultry production having less than 30 birds as stock size. Also, 82.2% and 42.3% indicated a need for training on general management of poultry and on sheep and goat production respectively. Credit (85%), lack of capital (90%), high mortality rate (51.7%) and inadequate information (63.5%) were some of the constraints in livestock farming as indicated by the women. Chi-square analysis result showed that primary occupation and age was significant (P= 0.05) to training needs of women in pig production. It is therefore recommended that government development strategies be modified to encourage and empower through training in livestock production and also allow women to have access to credit as this will allow them boost their production level.

1. INTRODUCTION

The term livestock can be defined as animals domesticated for food and fibre production. Such livestock may include pigs, cow, goat, sheep, horses, donkeys, mules, various types of poultry including chickens, geese, ducks and turkeys and even aquaculture. Livestock production accounts for one third of Nigeria's GDP providing food, farm energy, manure, fuel and transport [1]. The type of livestock reared varies worldwide and depends on certain factors such as climate, consumer demand, native animals, local tradition and land type. Nigeria is one of the four leading livestock producers in sub-Sahara Africa, in 1990 the livestock population comprises about 14 million cattle, 23 million goat and 13 million sheep [2]. However, these figures have since increased to 15.2 million cattle, 28 million goat and 23 million sheep [3].

Livestock are important in supporting the livelihood of poor farmers, consumers, traders and labourers in the developing world [4]. In sub-Sahara region, livestock is an important sector of agricultural production. Livestock provide a steady stream of food and income [5], help to raise farm productivity, and for many, offers a livelihood option as they exploit common resources for private gain [6]. An estimated 70% of the rural poor are vulnerable groups including children and women for whom livestock play an important role not only by providing a source of income but also by conferring status [7].

Women play significant role in agricultural production in developing countries, particularly in low income countries in which agriculture accounts for an average of 32% of growth in gross domestic product (GDP) and in which an average of 70% of the country's poor live and work in the rural areas. Women make up a substantial majority of the agricultural workforce and produce most of the food that is consumed locally. The large proportion of agricultural production that is attributed to women makes them important agents of economic development and principal agents of food security and household welfare in both rural and urban areas [8]. The role that women play and their position in meeting the challenges of agriculture and livestock production and development are quite dominant and prominent. Their relevance and significance therefore cannot be overemphasized. Findings from a study conducted by the United Nations Development Programme (UNDP) as reported by World Bank [9] revealed that women make up 60-80% of agricultural labour force in Nigeria. The production of livestock according to Ndang and Tazuah [10] is predominantly male dominated, yet women are productive and are regular actors in animal husbandry particularly in the production of micro livestock. In an area where commercial banking is poorly developed, particularly in the rural area, livestock tend to serve as a store of value and rural bank for most rural dwellers.

Demand for livestock is expected to double in developing countries in the next twenty years [11], making it the fastest growing agricultural sector. Empowering women in this sector will improve their status, increase their income level and make them have a say in the community.

In light of this, the broad objective of this study was to assess the training needs of women involved in livestock production in Oyo State, Nigeria while the specific objectives were to:

i. Describe the personal and production characteristics of women in the study area;
ii. Identify the types of livestock reared by women;
iii. Investigate areas of training needs of women;
iv. Find out the constraints encountered by women in livestock production.

2. METHODOLOGY

2.1 The Study Area

The study was conducted in Oyo State, Nigeria. Oyo State is one of the 36 states of the Federal Republic of Nigeria. It came into existence with the breakup of the old Western State during the state creation of 1976. Oyo State covers a total of 27,249 square kilometers of land mass and is bounded in the South by Ogun State, in the North by Kwara State. To the West, it is bounded partly by Osun State. Oyo State population stands at 5,591,589 [12]. Oyo State has 33 Local Government Areas with Ibadan being the largest city in the State. Agriculture is the major source of income for a great number of people of Oyo State [13]. The State is homogenous comprising mainly people of the Yoruba ethnic group but other tribes could also be found.

2.2 Sampling Design

A multi-stage random sampling technique was used because Oyo State has 33 local government areas which are divided into four agricultural zones. At the first stage, two zones were randomly selected out of the four agricultural zones of Oyo State Agricultural Development programme (OYSADEP). These were Ibadan/Ibarapa and Ogbomoso zone. Three local government areas were also randomly selected from each zone to give a total of six local government areas (Ibadan central, Ido, Ibarapa North, Ogbomoso South, Ogo-Oluwa, Surulere) six villages were also randomly selected from each local government area to give a total of 36 villages in all. Five women were further purposively selected from each village to give a total of 180 rural women which was used for data analysis.

2.3 Method of Data Collection and Analysis

A well structured interview guide was used to collect primary data from women involved in livestock production. Descriptive statistics such as frequency counts, percentages, and mean were used to present results on personal and production characteristics of women, types of livestock reared, training needs and constraints of women in livestock production. Chi-square was used to test the relationship that exists between personal characteristics and training needs of women in livestock production.

3. RESULTS AND DISCUSSION

3.1 Personal Characteristics of Women

Table 1 shows the distribution of women according to their personal characteristics. About one quarter (38.2%) of the women was between ages 31-50 years with mean age of 52.9 years. Though, one may say that the women are getting old but they are still active. Almost half (49.45) of the women are Muslim and this may have implication on the rearing of pigs based on religious grounds. Also, majority (60.2%) of the women had one form of education or another. The literacy level of the women is a very important variable and this may influence their ability to properly comprehend new techniques and method required to bring about positive change in attitude, knowledge and skill of the women. It is also evident from Table 1 that 94.4% of the women were married, 55.2% had a household size of between 5-12 persons with a mean of 7.8 persons. The large family size in the study area shows a typical rural Africa setting which is characterized by a large family size as observed by Ekong [14]. The large household size could serve as a useful source of labour for the women thereby reducing the cost of labour.

Findings from the study further show that civil service was the primary occupation of 24.9% of the women while 29.8%, 12.7%, and 21.5% indicated crop farming, livestock farming, and mixed farming respectively as their primary occupation. Also, 24.9%, 28.2%, 40.3%, and 2.2% indicated civil service, crop farming, livestock farming, and mixed farming as their secondary occupation. The result implies that very few (12.7%) of the women took livestock farming as primary occupation while 41.3% were into livestock farming as secondary occupation. The very few women that were into livestock farming as primary occupation are those that got financial assistance from their husband as indicated by the women during focus group discussion. Furthermore, 40.2% took livestock production as secondary occupation but have small stock size though willing to have larger number but got no assistance either from any group or their husband as mentioned by the women in the study area. The implication of this is that women may not be able to stand on their own, may not have a voice in the society, and there is probably going to be a decrease in income and low standard of living. They may also not be able to pay their children school fees (especially women that are the head of household), may not have access to good health

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care facilities and all these may increase the poverty level of the women.

3.2 Production Characteristics of Women

Table 2 shows the distribution of women according to their production characteristics. The result shows that more than half of the women (57.5%) were into poultry production alone, 8.8% were into the production of sheep and goat, 26% rear poultry together with sheep and goat. This implies that women were involved in different types of livestock production as a means of livelihood diversification for income. Majority (95%) of the women have small stock size of between 1-30 birds.

Table 1. Personal characteristics of women (n=180)

Parameter	Frequency	Percentage	Mean (Mode)
Age (year)			
≤ 30	2	1.1	
31-40	22	12.2	
41-50	47	26.0	52.9years
51-60	69	38.1	
>60	40	22.1	
Religion			
Muslim	89	49.4	
Christian	74	41.1	
Traditional	17	9.4	
Educational level			
No formal education	73	39.8	
Adult education	10	5.7	
Primary education	59	22.2	(No formal education)
Secondary education	25	14.2	
Tertiary education	07	3.9	
Primary occupation			
Civil servant	45	24.9	
Crop farming	54	29.8	
Livestock farming	23	12.7	(Crop farming)
Mixed farming	39	21.5	
Trading	9	5.4	
Processing	10	5.5	
Secondary occupation			
Civil servant	45	24.9	
Crop farming	51	28.2	
Livestock farming	65	40.3	
Mixed farming	4	2.2	(Crop farming)
Trading	01	1.1	
Processing	05	2.8	
Marital status			
Married	166	94.9	
Single	5	2.9	(Married)
Widow	4	2.2	
Divorced	6	3.3	
Household size			
≤ 4	57	31.5	
5-8	60	33.1	7.8 persons
9-12	40	22.1	
>12	23	12.7	

(Words in parentheses are the mode)

Table 2. Production characteristics of women (n=180)

Parameters	Frequency	Percentage
Types of livestock		
Poultry	104	57.5
Pig	2	1.1
Sheep+goat production	16	8.8
Poultry+pig production	3	1.7
Poultry+sheep + goat	47	26.0
Poultry+goat	2	1.1
Others	4	2.2
Size of stock		
Poultry		
≤ 10	59	32.6
11-20	64	35.4
21-30	49	27.1
>30	9	5.0
Pig		
≤ 5	173	95.6
5-10	6	4.4
10-15	-	0.0
>15	-	0.0
Sheep and goat		
≤5	132	72.9
5-10	53	19.5
10-15	14	7.7
Annual Income		
≤ 50000	136	75.1
50001-70000	13	7.2
70001-90000	13	7.2
Source of labour		
Family labour	83	46.1
Personal labour	79	43.9
Hired labour	10	5.6
Use of machines	8	4.4
Source of capital		
From husband	29	16.0
Cooperative loan	9	5.0
Personal savings	115	63.8

Also, very few (1.1%) of the women were into pig production and this may be because of religious belief of the Muslims. According to Harris [15], the unclean nature of pigs makes it unfit for rearing and eating for the Muslims. Also, 72.9% have small stock size of less than or equal to 5.

The result implies that though the women were into different livestock rearing activities, they can still be regarded as small scale livestock farmers.

The annual income of 75.1% of the women is less than or equal to ₦50, 000, the small stock size may be attributed to this. Personal and family labour was the source of labour used on the farm as indicated by 46.1% and 43.9% of the women respectively. This may be because majority of the women (as shown in Table 1) have small stock size which may not require hiring of labour. Furthermore, majority (68.8%) of the women got the capital used for livestock farming from personal saving while 16% got theirs from their husbands as indicated by the women.

3.3 Training Needs of Women in Livestock Production

Table 3 shows the training needs of women in livestock production. The result show that 82.2% of the women indicated training on general management of poultry (from brooding/chick production market size). This may be because poultry are small animals that is easily handled and mostly reared by women. Also, 42.3% of the women want training on general management of sheep and goat. The other areas where women need training are feeding in fish (96.6%), pig production (5.6%), and in sheep and goat (11.1%) using local feed ingredients as indicated by the women and in drug administration for all the livestock types under studied.

The result further show that the women want training on all the livestock types selected for this study as training in these areas will give them knowledge, build their capacity and also empower them in these areas of livestock production. Ajayi [16] submitted that training is the process of teaching, informing and educating people so that they become well qualified to do their work and to perform in a position of great difficulty and responsibility. Ajayi [17] also stated that training is the acquisition of the best ways to utilize knowledge and skills to achieve a specific goal of production.

Table 3. Training needs of women in livestock production (n=180)

Training areas	Poultry	Pig	Sheep & goat	Others
Brooding	20 (11.11)	0 (0.0)	0 (0.0)	0 (0.0)
Feeding and feed formulation	0 (0.0)	10 (5.6)	20 (11.11)	12 (6.6)
Drug administration	12 (6.6)	15 (8.3)	42 (23.3)	6 (3.3)
General management	148 (82.2)	28 (15.6)	76 (42.2)	30 (16.7)

Multiple responses given

3.4 Constraints of Women in Livestock Production

Table 4 shows the constraints of women in livestock production. The table shows that lack of access to credit (85.0%) and lack of capital (90%) are major constraints encountered in livestock rearing. This may be the reason why majority of the women were producing at small scale level. Mayoux [18] opined that access to credit gives women a greater economic role in decision making. He submitted that when women control decision regarding credit and savings, they will optimize it for their own welfare. It was further corroborated by Mayoux [18] that investment in women's economic activities will improve employment opportunities for the women and this he said will have a trickledown effect. High mortality rate (51.7%) and inadequate information (68.3%) were also major constraints as indicated by the women. Information about new technologies is very vital for effective and efficient production system. Lack of adequate information may reduce level of livestock production among

the women. The women (46.7%) identified marketing of livestock and its products as a major constraint and this can affect livestock production level among the women and also reduce income level. Moise [19] positioned that trade is a powerful engine for economic growth, poverty reduction and development.

3.5 Test of Hypothesis

Table 5 show the relationship between selected personal characteristics and training needs of women. Result of chi-square show that primary occupation and age is significant (x^2 =32.16, df =15; x^2 = 28.62, df=12) to training needs in pig. This implies that age is an important variable to be considered when planning a training programme. Aseidu-Darko [20] submitted that age affects the capacity to learn new technologies coupled with other factors like level of education, social norms, belief about a technology, environmental factors and the characteristics of the technology itself among many others.

Table 4. Constraints facing women in livestock farming

Constraints	Major constraint	Minor constraint	Not a constraint
Disease infestation	45 (37.5)	50 (41.7)	25 (20.8)
High mortality	62 (51.7)	40 (33.3)	18 (15.0)
Lack of credit	102 (85.0)	18 (15.0)	- (0.0)
Market problem	56 (46.7)	32 (26.7)	32 (26.7)
Lack of capital	108 (90.0)	12 (10.0)	- (0.0)
Inadequate information	82 (68.3)	18 (15.0)	20 (16.7)
Unavailability of inputs	53 (44.2)	42 (35.0)	25 (20.8)
Lack of space for rearing livestock	20 (16.7)	46 (38.3)	54 (45.0)

* Multiple responses given

Table 5. Relationship between personal characteristics of women and training needs

Parameters	Livestock type	Chi-square	df	p-value
Primary occupation	Sheep & goat	9.2	15	0.83
	Pig	32.16	15	0.00*
	Poultry	7.63	15	0.94
Educational status	Sheep & goat	14.29	15	0.50
	Pig	8.80	15	0.89
	Poultry	15.83	15	0.39
Marital status	Sheep & goat	4.09	6	0.66
	Pig	5.69	6	0.46
	Poultry	2.89	6	0.82
Religion	Sheep & goat	6.82	6	0.39
	Pig	6.04	6	0.39
	Poultry	7.40	6	0.29
Age	Sheep & goat	13.39	12	0.34
	Pig	28.62	12	0.00*
	Poultry	8.54	12	0.74

*= Significant at P = 0.05

4. CONCLUSION AND RECOMMENDATION

The major conclusion from this study is that women are involved in livestock rearing either as a major or secondary occupation. Though as small scale producers, they do not have access to credit and majority of the women interviewed showed interest in training in all the livestock types indicated in this study as this will empower them and boost their social status and level of livestock production. Lack of capital, lack of credit and inadequate information were the major constraints identified by the women as affecting livestock farming. Primary occupation and age were significant (P=.05) to training needs of women in pig production and in sheep and goat production respectively. This informs that age and occupation are important variables to be considered when planning a training programme as this will have a significant effect on the level of reception of the content of training and rate of application. Based on the findings from this study, it is recommended that:

1. Government development strategies should be modified to encourage and recognize women's increasing role in livestock production. Development projects and policies should also be targeted at women.
2. Women should be encouraged to form groups and these groups should be encouraged to take up activities related to livestock production.
3. The really poor do not have large animals and so a livestock strategy that will include many poor women and their families must focus on small animals like poulty.
4. Credit needs to be provided directly to women removing or allow flexibility in bureaucratic procedures. Terms of loan repayment should be made flexible to accommodate slower rate of return on livestock and adequate follow up should be provided.
5. Information on livestock production should be made available to women through different means as this will increase awareness on new techniques and how to apply and adopt these techniques to increase their level of production.
6. Empowerment requires training and financial support which is required to boost women livestock production capabilities as well as increase their income and standard of living.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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