

## ASSESSMENT OF TRAINING NEEDS OF L-PRES PARTICIPANTS IN KOGI STATE

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### ABSTRACT

*The study examined the training needs of L-PRES participants in Kogi state. The objectives of the study included to describe socio-economic characteristics of L-PRES participants, identify the training needs of participants, examine socio economic characteristic of participants that influence their interest for livestock training and Identify the constraints to livestock production among L-PRES participants. A total of 120 participants were sampled through multistage and random sampling techniques. Structured questionnaire was used to generate primary data. Obtained data was analyzed with descriptive and Logit regressions analysis. Results showed that participants were 50 years and below with a mean age of 43 years. 80% of the participants acquire formal education while 81% practice extensive method of animal production. The major training needs of farmers were Pests and Diseases management (3.5), Production of livestock feeds and forages (3.0), Livestock waste management (3.3), Administration of vaccines and drugs (3.2), Marketing of livestock/livestock products (3.0) and Knowledge of good animal husbandry practices (3.4.) respectively. Age, Herd size, Educational attainment, Extension contact and Livestock production system influenced participants interest in livestock trainings. The study recommended that L-PRES should capture more farmers into the program so that livestock farmers can access training in livestock production and more extension agents should be employed to reach out to livestock farmers on livestock innovation in the study area.*

**Keywords:** L-PRES, Farmers, livestock production, Training needs, Kogi State

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### INTRODUCTION

Livestock farming is an important part of the Nigerian agricultural sector. The demand for livestock products in Nigeria is on the rise owing to growing population, changes in income and food preferences. The available statistic shows that the livestock Sub sector has doubled (12.7%) the agricultural sector with a growth rate of 6.8% annually. The livestock subsector is vital to the socio economic development and key for nutritional security, providing 36.5 percent of the proteins consumed by the populace in Nigeria. It's an important sector that if proper priority is given can change the fortune of Nigeria economy. Majority of Nigerian livestock owners are the rural poor, and a significant proportion of the urban poor as well, and evidence indicate that livestock development would positively contribute to poverty alleviation. Despite the large herd size, livestock sub sector production does not meet the current need (Emokaro and Eweka, 2022). The difference between domestic demand and supply is projected to widen in future (World Bank,2020)

Nigeria currently imports more than 70% of its poultry and 25% of its beef requirement to meet its domestic demand. The Northern region has the largest population of livestock in the country, about 90% of the country's cattle population and 70% of country's livestock population (World Bank, 2019). While the large commercial holdings are expanding, it is predicted an exponential rise in demand for meat (FAO, 2023).

Several Agricultural programs have been initiated by successive governments in Nigeria to bring about improvements in the supply of livestock product in the country by attempting to increase livestock productivity. (Tsado, 20017) in his findings reported that most of these programs failed to achieve the desired objectives due to stiffened bottleneck encountered during project implementation. One of the measures being implemented to boost livestock production and income of farmers throughout the country is the Livestock Productivity and Resiliency support Project (L-PRES). L-PRES is a 6 years' project with development objective (PDO) to improve livestock productivity, Resiliene and Commercialization of selected value chain and to strengthen the country capacity to respond to an eligible crises or emergency. Area of priority of L-PRES is the beef cattle value chain serving as an engine for local economic growth by nurturing and supporting indigenous industries. Additionally, the project places emphases on the sheep and goat value chain with a dedicated commitment to fortifying smallholder marketing system.

As laudable as L-PRES objectives are, if desirable outcome is needed, adequate training must be given to the targeted participants. L-PRES participants require training to improve their productivity to be able to carry out their business. According to Dhaka *et al.* (2017) training referred to as the acquisition of skills by a person to gain expertise to be able to perform on act expertly. Training is the process of acquiring specific skills to perform a job better (Issa *et al.*, 2017). Business dictionary dictionary define training as "an ability and capacity obtained through

deliberate systemic and sustained effort to smoothly and adaptively carryout complex activities or job function involving ideas (cognitive training) things, (technical training) and / or people (interpersonal)". Ajayi (2019) defined training as the abilities to carry out a task with predetermined result often within a given amount of time energy or both. Sajeev and Singha (2016) opined that farmers' training is directed towards improving their job efficiency in farming. Extension education is not just training for knowing more but to behave differently. That is to say, farmers who acquire training have to put it in practical use to bring out the best productivity as compare to the ones who had no training. Trainings are conducted at various levels for which the programmes are designed based on the clientele problems, their needs and interests. (Sajeev and Singha, 2016). Training needs analysis is one of the crucial steps towards identifying the areas of farmers' interest, design and development of curriculum that can best suit to the existing real conditions of the farmers. The expansion of livestock sector is hampered by low levels of knowledge about improved inputs and management practices, which has impeded the growth in productivity in the sector. It is against this back drop that this study analyzed the training needs of L-PRES participants among L-PRES participants in Kogi State, Nigeria.

### **Objectives of the Study**

The main objective of the study was to assess the training needs of L-PRES participants in Kogi state, Nigeria. The specific objectives were to:

- i. describe the socio-economic characteristics of L-PRES participants;
- ii. identify the training needs of participants;
- iii. examine socio economic characteristic of L-PRES participants that influence their interest for livestock training
- iv. Identify the constraints to livestock production among the participants.

### **METHODOLOGY**

#### *Study Area and Sampling*

The research was conducted in Kogi State. The state has 21 Local government Areas and is characterized with rainy season and dry season. Multi-stage, purposive and simple random sampling techniques were used in selecting respondent for this study. The state is divided into six Agricultural zone namely; Zone A, Zone B, Zone C, Zone D, Zone E and Zone F respectively. Three Zones was randomly selected (These are zone A, C, and E). In the second stage, one LGA was randomly selected from each zone making a total of 3 LGAs. In the third stage, five (5) communities were also randomly selected from each LGAs making a total of fifteen (15) communities respectively. In the last stage, eight (8) respondent was randomly selected from each community who have been profiled with Kogi L-PRES program, these gives a total of 120 respondents in the study area.

#### **Data Collection**

We use cross-sectional data to collect information from 120 L-PRES participant. Data were sourced directly from the L-PRES participants using well-structured questionnaire complemented with interview sessions. The data collection activities were conducted with the assistance of survey teams comprising trained enumerators and supervisors, who were graduates of agriculture. The language of data collection was mainly the local language of the farmers to facilitate their understanding of the survey questions, which allows more accurate responses.

#### **Estimation Strategy**

Data for this study was analysed using descriptive and inferential statistics. The specific objectives of the study was achieved with the following methods: - Objective (i), (ii), and (iv) was achieved using descriptive statistical tools such as frequency distribution, tables, means, percentage and Likert Rating Scale Technique while Objective (iii) was achieved using binary logistic regression analysis respectively.

#### **Logit regression analysis**

The Logit regression was used to identify the socio-economic characteristic of L-PRES participants that influence their interest for training on livestock production.

The general form of the Logit regression model is specified as;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} +$$

$\alpha$  = is the constant intercept of the equation;

$\beta$  = represent the coefficients of the explanatory variables in the estimated model;

$X$  = is the vector of explanatory variables in the estimation model;

$\epsilon$  = is the error term; and

The model for this study is explicitly specified as follows;

Where;

$Y$  = Interest for training on livestock production (yes = 1, otherwise = 0)

$X_1$  = Age (years)

$X_2$  = Gender (male = 1, and otherwise =0)

- X<sub>3</sub> = Household size (number of persons)  
 X<sub>4</sub> = Herd size (number of livestock)  
 X<sub>5</sub> = Educational attainment (formal education = 1, otherwise = 0)  
 X<sub>6</sub> = Livestock experience (number of years)  
 X<sub>7</sub> = Extension contact (number of contact)  
 X<sub>8</sub> = Livestock production system (intensive = 1, otherwise = 0)  
 X<sub>9</sub> = Co-operative membership (member = 0, otherwise = 0)

Likert Rating scale technique

Objective (ii) was realized using Likert type scale technique. A 5- point rating scale was employed in this study. This was regarded as Very important (VI), Important (I), Neutral (N), Less Important (LI) and Not Important (NI), with corresponding values of 5,4, 3, 2, and 1 respectively. The mean score of the respondents based on the 5- point rating scale was computed as:

$$\frac{5+4+3+2+1}{5} = 3.0$$

## RESULTS AND DISCUSSION

The results of the study in table 1 shows that majority of the L-PRES participants (73%) were 50 years and below with a mean age of 43 years. This shows that livestock farming in the study area is embraced predominantly by middle-aged farmers. This finding by Adejoh, Kehinde and Umar (2020) on the Assessment of Technology Adoption Among Small Scale Fadama III-AF participants in Kogi State, Nigeria, showed that farmers within the active age groups are able to withstand stress and put more time in various farming operations and can be easily convinced of adopting of new innovation. Majority of the L-PRES participants (57%) were married. This shows that rearing of livestock is predominant among married people. Likewise, household size of 8 persons per household were obtained among L-PRES participants respectively. This implies that farming households is large enough to provide sufficient family labour for the operation of their farm work and also for upkeep of their small-scale livestock business. The result also reveal that every household has an average of 23 livestock they are rearing, these include poultry, goat, sheep and cattle. This shows that the farmers are producing on a small-scale level which might not be highly profitable for the farmers. The result on livestock experience revealed that an average farmer has about 19 years of rearing livestock in their domain. Adebayo (2017) assessed that the longer a person stays on a particular job, the better the skill acquired and hence the better job performance the person tend to deliver. Farmers with high farming experience find adoption of innovation very easier than a farmer with less farming experience and are always eager to acquire trainings that will help them to improve their productivity. On educational attainment, the result shows that majority (80%) of the L-PRES participants acquire formal education. The level of awareness and adoption of agricultural innovations are influenced by the literacy status of farmers. Those who are literate are known to be more innovative than their counterpart because of their ability to get information more quickly and to take more risk. Attendance of trainings by farmers is also closely linked to farmers level of awareness and their ability to access relevant information. Majority (81%) of the L-PRES participants practice extensive method of keeping animals. Issah Kagbu, Mani and Maccido (2021) asserts that livestock productivity is very poor in the Northern region of Nigeria and it's as a result of poor level of technology deployed by farmers in their livestock management. Minority 34% of the farmers belong to cooperative society, Co-operatives provides an alternative and cheap means of raising the required capital for livestock production and expansion, which will have a positive impact on the net farm income of the respondents. About half (52%) of the L-PRES participants accessed extension contact for their livestock production. Umar *et al.* (2009) observed that the more the extension contact by farmer the more the likelihood of them to have accessed training on modern agricultural practices and it also increase their adoption of improved farm production technologies.

**Table1: Socio-economic distribution of L-PRES participants in the study area**

Variables	Frequency	Percentage (%)
<b>Age</b>		
21-30	19	16
31-40	29	24
41-50	40	33
51 and above	32	27
<b>Mean</b>	<b>43.7</b>	
<b>Marital status</b>		
Married	68	57
Divorce/Separated	12	10
Widow/Widower	17	14
Single	23	19
<b>Household size</b>		

3-6	32	27
7-9	53	44
10-12	19	16
13 and above	16	13
<b>Mean</b>	<b>8.3</b>	
<b>Herd size</b>		
1-10	16	13
11-20	38	32
21-30	56	47
>30	10	8
<b>Mean</b>	<b>23</b>	
<b>Livestock experience (Years)</b>		
1-10	21	17
11-20	38	32
21-30	42	35
>30	19	16
<b>Mean</b>	<b>19</b>	
<b>Education Acquired(years)</b>		
No formal education	25	21
Primary certificate	37	31
Secondary School certificate	31	26
Higher Institution	27	22
<b>Method of livestock rearing</b>		
Intensive	23	19
Extensive	97	81
<b>Members of cooperative</b>		
Yes	44	37
No	76	63
<b>Extension Contact</b>		
Extension Contact	62	52
No extension Contact	58	48
<b>Total</b>	<b>120</b>	<b>100</b>

Source: Field survey 2025

#### Training Needs of Livestock Farmer

A five-point Likert Rating Scale on nine (9) variables were used to identify relevant variables that validate L-PRES participants interest for livestock training in the study area as shown in table 2. According to the result, pest and diseases management (3.5), Good animal husbandry practices (3.4), livestock waste management (3.3), administration of vaccine and drug (3.2), production of livestock feed and forage (3.0) and marketing of livestock/livestock product were identified as areas where training are needed for livestock production.

**Table 2: Training needs of L-PRES participants**

S/No	Mean Value(X)	Decision	Rank
<b>Pest and Diseases management</b>	3.5	Accepted	1 <sup>st</sup>
<b>Production of livestock feeds and Forage</b>	3.0	Accepted	5 <sup>th</sup>
<b>Livestock waste Management</b>	3.3	Accepted	3 <sup>rd</sup>
<b>Administration of Vaccine and drugs</b>	3.2	Accepted	4 <sup>th</sup>
<b>Production of Organic manure</b>	2.9	Rejected	7 <sup>th</sup>
<b>Breeding and Reproduction</b>	2.9	Rejected	8 <sup>th</sup>
<b>Marketing of Livestock/livestock product</b>	3.0	Accepted	6 <sup>th</sup>
<b>Record Keeping</b>			
<b>Knowledge of Good Animal Husbandry Practices (GAP)</b>	2.7	Rejected	9 <sup>th</sup>
	3.4	Accepted	2 <sup>nd</sup>

Source: Field survey 2025

#### Socio-economic determinants of training needs of L-PRES participants

The result of the binary logistic regression in Table 3 shows that at 5% level of significance, the hypothesis that the selected socio-economic variables have significant effect on the interest of L-PRES Participants in receiving livestock training is accepted. There was a significant change in -2 log likelihood. This suggests that there was a

significant cause-effect relationship between interest of L-PRES participants in receiving training and the selected explanatory variables. The Cox & Snell R square (coefficient of determination) (R<sup>2</sup>) is 0.728. This indicates that 73% variation on the interest of L-PRES participants in receiving training is accounted for by variations in the selected explanatory variables, suggesting that the model has explanatory power on the on the interest of L-PRES participants in receiving livestock training.

Socioeconomic factors such as herd size, educational attainment, extension contacts and livestock production system (intensive method) was positive and statistically significant in influencing L-PRES participants interest for livestock training. Age on the other hand was significant but negate their interest for livestock training. Farmers with large herd size will be more interested in improving the productivity of their herd, therefore their interest for training will be higher than farmer with fewer herd (Kinyangi, 2019). Education makes the farmer 's ability to understand and evaluate new production techniques through training very easy. This results into higher output and productivity (Orebiyi, *et al.*, 2016). Increase of farmers' access to extension contact and services will increase their chances of attending agricultural training which will raise their output and profit level. As expected, large scale farmers practice intensive system of raising livestock, in order to increase efficiency, profitability, output and productivity, commercial farms are usually afloat on training their staff in livestock production.

**Table 3: Logit Regression Result for socio-economic Factors influencing training needs of L-PRES participants in the study Area.**

Variables	Coefficient	Standard error	T- Value
Age	-.0011831	0.0005305	-2.23***
Gender	.035647	0.021092	1.69
Household size	.0038015	0.003041	1.25
Herd Size	.0148512	0.007500	1.98**
Educational attainment	.0042536	0.001907	2.23***
Livestock Experience	-.0017569	0.000757	1.96
Extension Contact	.0078001	0.002847	2.74**
Livestock production system	.0636499	0.012604	5.05***
Cooperative membership	.008753	0.000825	10.60
Loglikelihood			53.7***
Cox & Snell R Square			0.72

**Constraints of Livestock production in the study area**

Table 4 shows the constraints to livestock production among L-PRES participants in the study area. In descending order, there were inadequate credit facilities, high cost of production, inadequate extension agents and training personnel and inadequate farm facilities. Agricultural development will be difficult to achieve in the face of these challenges. Through services such as extension education, farmers can access reliable and affordable supply of inputs, help to increase productivity, generate high income and play roles in improving work and social conditions, addressing unemployment and food security.

**Table 4: The constraints to livestock production among L-PRES participants in the study area**

Constraints	Frequency	Percentage (%)
High Cost of production	112	93
Inadequate credit facility	118	98
Inadequate extension agents and training personnel	95	79
Poor skill in crossbreeding	30	25
Inadequate farm facility	102	85
Distance to training centres	53	44

**CONCLUSION**

L-PRES participants have high interest on livestock training. The importance of training in livestock production cannot be overemphasized. The aim is to impact new knowledge, teach better skills to bring about increase in livestock productivity and efficient performance in the sector. Participants have indicated areas of training need in their activities such as; Pest and Diseases management, Production of livestock feeds and Forage, Livestock waste Management, Administration of Vaccine and drug, Marketing of Livestock/livestock product and Knowledge of Good Animal Husbandry Practices (GAP). Adequate training in livestock production is a necessary factor to sustainable rural livelihood, reduce poverty and consequently rural development. More livestock farmers in Kogi state should be captured by Kogi L-PRES to have access to livestock training in order to enhance farm productivity. It is imperative for L-PRES to ensure that a wider spectrum of smallholder L-PRES participants are able to have access to credit in order to increase their livestock productivity level. Extension agent should be employed by Kogi

L-PRES to help reach out to livestock farmers and to help disseminate new innovation on Good Animals Husbandary Practices to farmers in their remote areas.

#### REFERENCES

- Adebayo, E.F. (2017). Resource Use Efficiency and Multiple Production Objectives of Dairy Pastoralists in Adamawa state, Nigeria. *Unpublished PhD thesis*, University of Ibadan.
- Adejoh, S.O., Kehinde, K.P. and Umar, O.M. (2020). Assessment of Technology Adoption Among Small Scale L-PRES participants in Kogi State, Nigeria. *Proceedings of the 37<sup>th</sup> Annual Conference of the AES held at FUL, Lafia*, Pp 109-115.
- Ajayi A.O. (2019). Identification of training needs of women farmers in Oyo State. *Unpublished M.Sc Thesis*. Department of Agricultural Extension and Rural Development, Obafemi Awolowo University, Ile-Ife.
- Dhaka, B. L., Bairwa, R.K., Meena, N.L., Meena, G.S., Chayal, K. and Nagar, B.L. (2019). Training needs assessment of women farmers on livestock production management in Bundi District of Rajasthan, India. *Int. J. Curr. Microbiol. App. Sci*, 6(6): 796-803.
- Emokaro, C. O. and Eweka, K. I. (2022). A Comparative Analysis of profitability of broiler production systems in Urban Areas of Edo State, Nigeria. *J. Appl. Sci. Environ. Manage. Dec.*, 19(4): 627-631
- FAO (2023). The future of livestock in Nigeria: Opportunities and challenges in the face of uncertainty. Rome.
- Issa, F. O., Ilu, I. Y. & Akolade, G. O. (2017). Effects of training on adoption of improved agricultural technologies by crop farmers in Lagos State, Nigeria. *Nigerian journal of Management*, 12(1): 62 – 67.
- Issa, F. O., Kagbu, J. H., Mani, J. R. and Maccido, M. A. (2021). Assessment of training needs of poultry farmers in Zaria local government area of Kaduna State, Nigeria. *Association of Deans of Agriculture in Nigeria Universities (ADAN)*. 2 (1): 1-12
- Kinyangi A.A. (2019). Factors Influencing the Adoption of Agricultural Technology among Smallholder Farmers in Kakamega North Sub-County, Kenya. Unpublished Research Project Submitted In Partial Fulfilment of The Requirements for the Award of the Degree of Master of Arts in Project Planning and Management of The University of Nairobi.
- Orebiyi, J.S., Tasié, C. M, Offor, U.S and Uche, F.B (2016). Effects of International Fund for Agricultural Development (IFAD) Credit Supply on Rural Farmers in Rivers State. *New York Science Journal* 2013; 6(1). 82 – 88.
- Sajeev, M.V. and Singh, A.K. (2010). *Capacity Building through KVKS. Training Needs Analysis of Farmers of Arnnachal Padesh, India. Indian Resource*. Journal of Extension Education 10(1). Pp. 83-90.
- World Bank (2020). Livestock productivity and resilience support project (P160865). Accessed from; <http://projects.worldbank.org/P160865?lang=en>