

<https://doi.org/10.33003/jaat.2026.1201.09>

ASSESSMENT OF MALE AND FEMALE PARTICIPATION IN LIVESTOCK GROUP ACTIVITIES IN KWARA STATE, NIGERIA.

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ABSTRACT

Livestock production plays a significant role in Nigeria's agricultural sector, contributing to food security, income generation, and poverty alleviation. In Kwara state, the involvement of both male and female farmers is essential for improving productivity and fostering inclusive agricultural development. The main objectives of the study was to assess the level of participation of male and female farmers in livestock group activities. Specific objectives were to; describe the socio-economic characteristics of livestock groups farmers in the study area, examine the level of participation in male and female livestock production activities, and identify the factors associated with participation between male and female in livestock group. An interview schedule was used to extract information from One hundred and Eighty-two Livestock groups farmers using Frequency counts, percentage, mean score, standard deviation, and Logistic regression analysis. Findings revealed that Male respondents were predominantly aged 41 above (50.4%) while female respondents 40years of age bracket (59.6%) with a mean score (38.6), secondary education being the most common (36.0% for males, 40.4% for females), majority of respondents were married (90.4% of males, 84.2% of females). Male respondents have low participation (MS 2.55) compared to female respondents demonstrated significantly higher involvement in livestock production activities (MS 2.58). The study conclude that women are actively involved in livestock production activities in the study area and the study recommended promoting inclusive livestock development programs; to address barriers to participation and leverage the strengths of both genders.

Keywords: Livestock production, Gender participation, Group activities.

INTRODUCTION

The livestock enterprise in Nigeria performs a vital role in offering food security, employment opportunities, and contributing to the country's financial system. In many African cities, urban livestock rearing serves as an important source of income and nutritional security, particularly among low-income households (Bukar *et al.*, 2022). Livestock production offers a unique opportunity for the empowerment of both men and women, young and old (Njuki *et al.* 2013; Oladejo *et al.*, 2024). Between 70-80% of the nation's population are engaged in agriculture and livestock industry as their major occupation and source of livelihood (Tafida & Olayinka, 2021).

Women's and men's roles and responsibilities vary across regions and cultures, they often follow similar gender divisions of labor. Limited participation of rural women in livestock value chain activities results from a fundamental misunderstanding of gender relationships but also the socio-economic and cultural roles of livestock at the household and community levels (Laven *et al.* 2009; Coles and Mitchell, 2011). To date, an understanding of women's role in livestock production in developing countries has been limited by cultural biases that underestimate women's contribution. Scientists and development workers have tended to concentrate on male oriented activities (beef production, large-scale enterprises, etc.), thus neglecting those activities that women are generally engaged in, notably, milk production, the raising of small stock and poultry, meat and hide processing, etc.

In many parts of the world, women's roles in agriculture differ significantly between and within regions owing to economic and social forces transforming the agricultural

sector. According to FAO (2020), women occupy a central place in subsistence agricultural production and are accountable for 80% of agricultural production. They are majorly involved in food production, processing, preparation and marketing. Despite these activities, women's contributions to food and agricultural production are still largely undervalued. In many developing countries, women often face a range of obstacles to achieving their full potential, ranging from constricting cultural practices to biased laws and highly fragmented labour markets (Quisumbing & Pandolfelli, 2010). In the rural communities of Nigeria, specifically in the northern states, women play significant roles in both livestock activities and household management aside from crop farming activities (Oladejo *et al.*, 2024). Women manage herds that are, on average, two thirds the size of those managed by men, they control fewer valuable species (mostly poultry while men control cattle), are more commercially oriented but earn less than men, and are less likely to use key inputs, such as labour, fodder, and vaccinations (Ikhide, 2021).

The phrase farmer groups or farmer's associations is defined as a group of farmers who share a common interest and same experiences (Asante *et al.*, 2011). Farmer's groups and associations are organizations of farmers formed to collectively address challenges and pursue common interests, providing benefits like improved access to information, markets, extension services, finance and technology by leveraging their combined strength to enhance productivity, income, and food security for their members. There are various livestock associations/groups in Nigeria, examples include Poultry Association of Nigeria (PAN), Broiler Farmers Network (BFN), Miyetti Allah Cattle breeders Association of Nigeria (MACBAN),

and so on. The information from the study provide information with respect to men and women participation in livestock production and helps the government at all level, policy makers, stakeholders, NGO's, individuals to know the level of gender involvement in livestock production across different livestock group in the study area and so on can channel their empowerment program. The main objective of the study was to assess the level of participation of male and female in livestock group activities in Kwara state, Nigeria. Specific objectives of the study were to: (i) describe the socio-economic characteristics of livestock groups farmers in the study area, (ii) examine the level of participation in male and female livestock production activities, (iii) identify the factors associated with participation between male and female in livestock group.

METHODOLOGY

The study was carried out in Kwara State. Kwara State shares boundary with Republic of Benin and with five states in Nigeria. In the North it is bounded by Niger State, in the South by Oyo, Osun and Ekiti States, and in the East by Kogi State. Kwara state is referred to as the "gateway" between the Northern and the Southern part of Nigeria. In term of political location, Kwara State is located in North Central Zone of Nigeria. It comprises of sixteen local government areas. Yoruba, Fulani, Baruba and Nupe are the major ethnic groups in the State. According to Nigeria Galleria, (2015) Kwara State occupies 36,825 square kilometers. In term of population, according to 2006 population census the population of Kwara state was 2.37 million (NPC, 2006). The climate of Kwara State is characterized by two major seasons. These are wet and dry seasons. The rainy season begins towards the end of April and last till October while the dry season begins in November and end in April. The temperature of the state ranges from 330C to 350C from November to January while from February to April it ranges from 340C to 370C. The total annual rainfall ranges from 990.3mm to 1318mm. the rainfall exhibits double maximal pattern. Relative humidity ranges from 75% to 88% from May to October and 35% to 80% during the dry season. The geology of the area consists of pre-Cambrian basement complex rock. The soil in the area especially in Ilorin the State headquarters supports the growth of cereal crops (Adeniyi, 2013) and vegetables. The dominant vegetation in the State is derived savanna. Grasses in the State includes spear grass, elephant grass and goat weeds while the trees include acacia, shear butter and locust beans trees. Majority of the people in the State are farmers. The common food crops grown in the State mainly for domestic consumption includes Maize, rice, Sorghum, Millet, Beans, Yam, Cassava, Guinea-corn and Vegetables.

Agrological conditions of Kwara State favors livestock production also it is the meeting point for livestock

producers from south western part of Nigeria to exchange goods and services with northerners. The state is locally known at gateway base, because it serves at intermediary between the core northern states i.e North west and North east and southern states (i.e south west, south east and south south).

The population for the study comprises of all livestock groups farmers in Kwara State, Nigeria. A two -stage random sampling technique was used in selecting the respondents for the study. The first stage involved the random selection of 53% of the 335 livestock groups farmers in the state. The second stage was the random selection of 20% of male and female members in each of the selected groups to produce a sample size of 182.

Level of participation of male and female in livestock production activities were measured on four- point scale as: high production= 3, moderate = 2, low =1, no participation =0. Objectives of the study were analyzed with frequency counts, percentages, mean and standard deviation while hypotheses of the study was analyzed with Logistic regression analysis.

RESULTS AND DISCUSSION

Socio-economic characteristics of respondents

Results revealed in Table 1 shows that Male respondents were predominantly aged 41–50 (50.4%) and aged 51 and above (33.6%), while female respondents were more concentrated in the ≤ 40 age bracket (59.6%) and 41- 50 (40.4%) while female having a mean score of (38.6 \pm 4.6). This age pattern suggests that women in livestock farming are relatively younger, possibly reflecting a generational shift in agricultural engagement. Younger women may be entering the sector through informal channels or household-based production systems, driven by livelihood diversification and economic necessity. Vaillant et al. (2023) note that younger female farmers often face compounded disadvantages than male farmers due to their age, gender, and limited asset base, which restricts their ability to scale operations or access formal support systems. Beyond age-related disparities, educational attainment revealed that both male and female respondents had similar distributions, with secondary education being the most common (36.0% for males, 40.4% for females). Tertiary education was slightly more prevalent among females (22.8%) than males (20.0%). While this parity is encouraging, it does not necessarily translate into equal access to agricultural opportunities. Kariuki et al. (2019) argue that despite comparable educational backgrounds, women often lack access to training and extension services due to gendered norms and institutional biases. The World Bank (2022) emphasizes that educational attainment alone cannot overcome systemic barriers unless accompanied by targeted interventions that address gender-specific

constraints. Gender differences revealed that the majority of respondents were married (90.4% of males, 84.2% of females), female respondents reported separated as (12.3%), divorced (3.5%) compared to males (1.6% and 1.6%, respectively). This pattern reflects the social vulnerability of women, particularly in rural settings where marital disruption can lead to loss of land rights, reduced access to labor, and diminished social capital. Ojumu et al. (2023) highlight that divorced and separated women often face exclusion from group decision-making and resource allocation, further marginalizing them within agricultural communities. These dynamics underscore the need for inclusive group governance structures that recognize and accommodate diverse marital statuses. A substantial majority of female respondents (71.9%) reported 1-10 years, 11- 20years (21.1%), 21 years above (7.0%) of livestock rearing experience and a mean score of (7.3±2.47), while male respondents had more distributed experience, with 36.8% reporting 11–20 years and 24.0% reporting 20years above. These findings suggest that women are relatively new entrants to livestock farming, which may limit their access to leadership roles and influence within farmer groups. Oni et al. (2021) highlights that farmer-herder conflicts significantly impact food insecurity, emphasizing the importance of experience in managing these conflicts and making informed decisions. Without deliberate efforts to mentor and elevate newer female farmers, these disparities may persist and reinforce existing power imbalances. Income disparities revealed

that majority of female respondents (45.6%) earned less than ₦1,000,000 annually, compared to only 25.6% of males. Conversely, higher income brackets were dominated by female respondents, with 49.1% earning between ₦1,000,001 and ₦2,000,000 than male with 48.0%. Female farmers having a mean score (939,473.68 ±372,2340.19). This notable disparity highlights the gendered nature of economic access in livestock farming. Gender often face constraints in asset ownership, market participation, and financial services. According to the World Bank (2022), female farmers in Nigeria produce 30% less per hectare than their male counterparts, largely due to limited access to inputs, credit, and labor. Addressing these gaps could boost Nigeria’s GDP by up to \$8.1 billion, demonstrating the economic imperative of gender equity in agriculture. Access to extension services revealed only 12.3% of female respondents having access, compared to 33.6% of males. Frequency of extension contact also reported 87.7% of female respondents reporting no contact with extension agents and 66.4% male. These findings reflect systemic exclusion of women from formal agricultural support systems. Ojumu et al. (2023) emphasize that extension services are often male-dominated, both in staffing and outreach design. The World Bank (2022) recommends engaging more extension agents, tailoring services to the needs of men and women, and leveraging digital platforms to reach underserved populations. These measures could enhance farmers participation and influence within groups.

Table 1: Socio-economic characteristics of livestock groups farmers.

Frequency	Male (125)		Female (57)	
	Frequency	Percentages	Frequency	Percentages
Age (years)				
≤ 40	20	16	34	59.6
41 – 50	63	50.4	23	40.4
51 and above	42	33.6	0	0.0
Mean			38.6±4.6	
Level of education				
No formal	38	30.4	15	26.3
Primary	17	13.6	6	10.5
Secondary	45	36.0	23	40.4
Tertiary	25	20.0	13	22.8
Years of Formal education				
0	38	30.4	15	26.3
1 – 6	17	13.6	6	10.5
7 -12	45	36.0	23	40.4
16 and above	25	20.0	13	22.8
Marital status				
Single	8	6.4	0	0.0
Married	113	90.4	48	84.2
Separated	2	1.6	7	12.3
Divorced	2	1.6	2	3.5

Livestock experience (years)				
1 – 10	49	39.2	41	71.9
11 – 20	46	36.8	12	21.1
21 and above	30	24.0	4	7.0
Mean			7.3±2.47	
Annual income (₦)				
≤ 1,000,000	32	25.6	26	45.6
100,001 – 2,000,000	60	48.0	28	49.1
Above 2,000,000	33	26.4	3	5.3
Mean			939,473.68± 372,2340.19	
Access to extension service				
Yes	42	33.6	7	12.3
No	83	66.4	50	87.7
Frequency of Extension schedule/ contact				
Once in a month	6	4.8	0	0.0
Once in 6 months	18	14.4	0	0.0
Yearly	18	14.4	7	12.3

Source: Field survey, 2025

Level of participation of male and female in livestock production activities.

Findings from Table 2 reveal distinct gender patterns in the participation of livestock production activities, with female demonstrating significantly higher involvement in routine care tasks. Female respondents reported high participation in water management (2.98±0.132), waste disposal (2.98±0.132), and animal health care (2.95±0.225), administering of drugs (2.91±0.285), cleaning (2.89±0.310), feeding (2.89±0.310). These activities are typically performed within or near the household and are traditionally aligned with women’s roles in maintaining hygiene and animal welfare. This pattern aligns with the findings of Oladejo et al. (2024), who reported that women in Northwest Nigeria are more engaged in daily livestock care but face persistent barriers in accessing technical roles and decision-making platforms. Their study emphasized that although women’s contributions are central to livestock productivity and household food security, they are often undervalued and overlooked in formal agricultural structures. Female respondents also reported higher participation in product processing 80.7% moderate participation (2.81±0.398). This indicate their active engagement in collaborative and value-adding activities.

Table 2: Level of participation of male and female in livestock production activities.

Participation score	Male Frequency (%)	Female Frequency (%)	Remarks
15 – 30	37 (29.6)	12 (21.1)	Low
31 – 45	88 (70.4)	45 (78.9)	High
Total	125	57	

Score range = 15 - 45

These findings challenge the stereotype that women are passive participants in agriculture. Coudouel et al. (2021) observed that women often engage more consistently in group-based initiatives, particularly when these platforms offer empowerment, networking, and access to shared resources. In addition, male respondents have a moderate level of participation in feeding 90.4% (2.90±0.296), water management (2.86±0.344), sales and marketing 56% (2.55±0.515), water disposal (2.54±0.501), cleaning (2.48±0.502). These tasks are essential and routine, often shared among household members regardless of gender. However, this suggest that men may take a slightly more active role in ensuring water availability, possibly due to the physical demands involved. In contrast, male respondents were more dominant in tasks requiring technical expertise, physical strength, or administrative authority. These include slaughtering 1.47±0.691, administering drugs (2.29±0.620), and record keeping (1.42±0.626). According to Njuki et al. (2021), women’s exclusion from administrative roles in livestock groups stems from systemic biases and limited exposure to organizational training. This exclusion not only diminishes their visibility but also restricts their influence in group decision-making processes.

Production activities	Male						Female					
	HP	MP	LP	NP	Mean	Rank	HP	MP	LP	NP	Mean	Rank
Water management	0	86.4	13.6	0	2.86±0.344	2 nd	0	98.2	1.8	0	2.98±0.132	1 st
Waste disposal	0	53.6	46.4	0	2.54±0.501	4 th	0	98.2	1.8	0	2.98±0.132	1 st
Health care	0	48.8	44.8	6.4	2.42±0.613	6 th	0	94.7	5.3	0	2.95±0.225	3 rd
Administering of drugs	0	37.6	53.6	8.8	2.29±0.620	8 th	0	91.2	8.8	0	2.91±0.285	4 th
Cleaning	0	48.0	52.0	0	2.48±0.502	5 th	0	89.5	10.5	0	2.89±0.310	5 th
Feeding	0	90.4	9.6	0	2.90±0.296	1 st	0	89.5	10.5	0	2.89±0.310	6 th
Product processing	0	32.0	48.8	19.2	2.13±0.707	9 th	0	80.7	19.3	0	2.81±0.398	7 th
Record keeping	0	7.2	28.0	64.8	1.42±0.626	14 th	0	80.7	19.3	0	2.81±0.398	8 th
House building	0	48.0	44.0	8.0	2.40±0.635	7 th	0	73.7	26.3	0	2.74±0.444	9 th
Pest and disease control	0	24.8	40.8	34.4	1.90±0.766	10 th	0	68.4	31.6	0	2.68±0.469	10 th
Vaccination program	0	14.4	28.0	57.6	1.57±0.733	12 th	0	28.1	71.9	0	2.28±0.453	12 th
Slaughtering activities	0	11.2	24.8	64.0	1.47±0.691	13 th	0	13.8	77.2	7.0	2.09±0.474	13 th
Sales and Marketing	0	56.0	43.2	0.8	2.55±0.515	3 rd	0	10.5	86.0	3.5	2.07±0.371	14 th
Training sessions	0	3.2	13.6	83.2	1.20±0.475	15 th	0	3.5	21.1	75.4	1.28±0.526	15 th
Grand mean					2.11						2.58	

Source: Field survey, 2025

Table 3: Factors associated with participation between male and female in livestock group.

	Male		Female	
	S.E.	Sig.	S.E.	Sig.
Age	.044	.322*	.123	.994*
Level of education	.331	.596*	1.212	.186*
Years of formal education	.009	.451*		
Marital status	.593	.709*	6249.291	.998*
Livestock experience	.042	.613*	.207	.948*
Annual income	.000	.444*	.000	.753*

Access to extension service	40192.650	1.000*	12661.853	.999*
Extension schedule / contact	40192.650	1.000*		
Satisfaction	.630	.683*	2.348	.836*
Organisation	.602	.424*	3.589	.818*
Decision making	.504	.643*	2.397	.699*
Participation	.621	.002*	2.930	.092*
BENEFITS	.539	.806*	.251	.523*
Constant	40192.650	1.000*	12498.599	.997*

Source: Field survey, 2025.

Result of Logistic regression analysis in Table 3 shows that only participation was statistically significant for the male respondents ($p = 0.002$, $\text{Exp}(B) = 6.633$). This implies that the male perceived the group more favorably than the female respondents. Dimelu et al. (2017) argue that male dominance in leadership often shapes group processes in ways that inadvertently exclude or marginalize women. When leadership structures reflect male priorities, women may feel less heard, less valued, and ultimately less satisfied. The broader implication is that if women perceive group spaces as unwelcoming or ineffective, their long-term engagement and contributions may diminish, potentially weakening the cohesion and sustainability of the group. Other variables, such as age, education, marital status, experience, income, access to extension, satisfaction, organization, decision making and benefits were not statistically significant ($p < 0.05$) and for the female respondents, no variables were statistically significant at $p > 0.05$.

CONCLUSION AND RECOMMENDATION

Based on the major findings, the study concluded that the gender plays a critical role in shaping experiences within livestock groups. Gender patterns demonstrated female significantly higher involvement in the participation of livestock production activities than the male farmers. Overall, the socioeconomic characteristics of livestock farmers in Kwara State also, concluded that entrenched gender disparities shape the group. While educational attainment appears balanced, disparities in age, income, experience, and access to extension services suggest that women face systemic barriers to full participation and leadership in livestock farming

Based on conclusions drawn, the following

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recommendations were made: (i) There should be gender sensitive development programs addressing barriers to participation (ii) Extension agents should promote programs leveraging strengths of both male and female farmers in livestock groups (iii) There should be equitable group governance structures, to foster a more inclusive and productive agricultural sector.

REFERENCES

- Asante B. O, Sefa V. A., Saarpong D. B. (2011): Determinants of Small – Scale Farmers Decision to Join Farmer Based Organizations in Ghana African Journal of Agricultural Research 6: 2273-2279.
- Bukar, M., Dogo, A., & Ibrahim, Y. (2022). The Role of Urban Agriculture in Livelihood Sustainability. African Journal of Agricultural Economics, 19(2)67-85.
- Coles, C., Mitchell, J., 2011. Gender and Agricultural Value Chains, a review of current knowledge and practice and their policy implications, ESA Working Paper n°11-05, Agr. Dev. Econom. Divis., FAO
- Dimelu, M. U., Salifu, D. E., & Enwelu, I. A. (2017). Gender issues in agriculture and rural development in Nigeria: The role of extension services. Journal of Agricultural Extension, 21(1), 30–42

- Coudouel, A., Dani, A. A., & Paternostro, S. (2021). Poverty and social impact analysis of reforms: Lessons and examples from implementation. World Bank Publications.
- FAO (2020). Annual statistical publication; Food and agricultural organization, Rome, Italy
- Ikhide, E. (2021). Closing the Gender Gap in Nigeria's Agriculture Sector.
- Kariuki, J., Njuki, J., & Mburu, S. (2019). Gender and agricultural innovation in Africa: Where are we and what needs to be done? *Agricultural Systems*, 176, 102672.
- Laven, A., van Eerdewijk, A., Senders, C., van, W., Snelder, R., 2009. Gender in value chains: Emerging lessons and questions, KIT, CIDIN, HIVOS, Agri-Pro-Focus and ICCO, 1-13.
- Oladejo, L. G., Lekan, O. K., & Zubair, Z. A. (2024). Analysis of women entrepreneur involvement in livestock farming in Northwest Nigeria. *International Journal of Entrepreneurial Development, Education and Science Research*, 8(1), 1–15.
- Oladejo Lukman Gbolagade, Olusegun kazeem Lekan 3 & Zulaihatu A. Zubair (2024). Analysis of Women Entrepreneur Involvement in Livestock Farming in North West Nigeria. *International Journal of Entrepreneurial Development, Education and Science Research* p-ISSN: 2360-901X | e-ISSN: 2360-9028 DOI: 10.48028/ijprds/ijedesr.v8.i1.17
- Oladejo, L. G., Olusegun K. Lekan. & Zulaihatu A. Z. (2024). Analysis of Women Entrepreneur Involvement in Livestock Farming in North West Nigeria. *International Journal of Entrepreneurial Development, Education and Science Research*, p-ISSN: 2360-901X | e-ISSN: 2360-9028. DOI:
- Ojumu, T. A., Adebayo, S. T., & Ojo, M. A. (2023). Gender dynamics in agricultural decision-making among livestock farmers in Nigeria. *African Journal of Agricultural Research*, 18(4), 112–121.
- Ojumu, T. A., Adebayo, S. T., & Ojo, M. A. (2023). Gender dynamics in agricultural decision-making among livestock farmers in Nigeria. *African Journal of Agricultural Research*, 18(4), 112–121.
- Njuki, J., & Sanginga, P. C. (Eds.). (2013). Women, livestock ownership and markets, New York, USA: Earthscan USA/International Development Research Centre, Canada.
- Njuki, J., & Sanginga, P. C. (2021). *Women and livestock: A review of the evidence and policies*. International Livestock Research Institute.
- Oni, O. O., Ibhaze, G. A., Ogunwande, I. O., & Onibi, G. E. (2022). Socioeconomic characteristics of farmers, profitability and militating factors affecting small ruminant production in Ondo State, Nigeria. *International Journal of Environment, Agriculture and Biotechnology*, 7(2), 102–110.
- Tafida, I. & Olayinka, S. (2021). Analysis of Gender Roles in Goat Production Management in Kano State, Nigeria. *Journal of Agripreneurship and Sustainable Development*. 4. 228-241. 10.59331/jasdv4i1.201.
- Quisumbing, A. R. & Pandolfelli, L. (2010) Promising approaches to address the needs of poor female farmers: Resources, constraints, and interventions, *World Dev.* 2010, 38, 581–592. (CrossRef).
- Vaillant, J., Brudevold-Newman, A., Copley, A., Fashogbon, A., Gonzalez, P., Morrison, L., Paskov, P., & Sahay, A. (2023). *Policy solutions to close gender gaps in the agriculture sector in Nigeria*. World Bank Nigeria Gender Innovation Lab. <https://documents1.worldbank.org/curated/en/099000007202229785/pdf/P17509508919690d30832f03844d5c95278.pdf>.

