ANALYSIS OF WOMEN PARTICIPATION IN LIVESTOCK PRODUCTION IN MANGU LOCAL GOVERNMENT AREA OF PLATEAU STATE, NIGERIA

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Abstract

Rural women in particular are responsible for half of the world's food production and produce between 60 and 80 percent of the food in most developing countries. Yet, despite their contribution to global food security, women farmers are frequently underestimated and over looked in development strategies. Traditionally, women are regarded as home makers who oversee and coordinate the affairs and activities at home.This study examined the participation of Women in livestock Production in Mangu local government area of Plateau State, Nigeria. Simple random sampling was used to select 90 women livestock farmers and data were collected through questionnaire. Descriptive statistics, Participation Index and Multiple Regression were used to analyse the data. The grand participation index (2.0) implies that women rarely participated in livestock production. Women always participated in the watering (2.97) feeding of animals (2.88) and cleaning of pen (2.72).The regression results revealed that extension contact was significant ($p<0.01$) and positive and age ($p<0.01$) also education, ($p<0.01$) and years of experience ($p<.0.05$) were significant factors influencing women participation in livestock production although negative. Poultry, Swine and Goat were the major types of Livestock kept by Women. The major constraints faced by women in livestock production were high cost of feed, inadequate capital, pest and diseases and high cost of medication. The study recommends that the women should be linked with micro finance banks so as to have access to capital which can be used to boost their level of participation in livestock production. Also the training need of women participation in livestock production should be identified and subsidy placed on vaccine and drugs so as to reduce the high cost of medication.

Key words: **Women, participation, livestock production, Mangu.**

Introduction

Women in Nigeria form an active and reserve labour force but they rarely own the means of productions (Rahman, 2004). However, the position of women in meeting challenges of agricultural development cannot be over emphasized. Women make a significant contribution to food production; they provide 60-80% of agricultural labour and are responsible for 80% of food production (Mgbada 2002; Rahman 2004). Women generally contribute more labour inputs in areas of feeding, manage vulnerable animals (calves, small ruminant and sick, injured and pregnant animals) cleaning barns, dairy related activities, (milking, butter and cheese making) transportation of farm manure and sale of milk and its products than men and children. Men own most of the livestock species and put up for sale animals and meat (Yisehak, 2008). Damisa *et al.* (2007) pointed out that various researches conducted on the contribution of women to agricultural development in the country suggests that women's contribution to farm work is as high as between 60 and 90% of the total farm task performed. The contribution of the women ranges from such tasks as land clearing, land tilling, and planting, weeding, fertilizer/manure application to harvesting, food processing, threshing, winnowing, milling, transportation and marketing as well as the management of livestock. Sharon (2008) viewed that both women and men play critical roles in agriculture throughout the world, producing, processing and providing the food we eat. Women make up half the rural population and they constitute more than half of the agricultural labor force. Rural women in particular are responsible for half of the world's food production and produce between 60 and 80percent of the food in most developing countries. Yet, despite their contribution to global food security, women farmers are frequently underestimated and over looked in development strategies. Traditionally, women are regarded as home makers who oversee and coordinate the affairs and activities at home.

Constraints to livestock production such as lack of capital and access to institutional credit comparing use of time, poor technical skills and lack of access to improved extension services affect women more than men and may further limit the participation of women in livestock production (Yisehak, 2008). Women typically have complete responsibility for animals that are kept close to the homestead such as poultry, calves and other small livestock and for risk animals and they rarely have major holding and management responsibilities for large stock (IFAD, 1994). There is no doubt livestock production requires full participation of women, but this will not happen until women are perceived as the subject of development (Rahman, 2004). The following research questions were formulated to guide the study.What is the socioeconomic characteristic of women livestock farmers in the study area?, what is the level of women participation in livestock production?, what are the types of livestock kept by the women livestock farmers?, what are the factors that affect women participation in livestock production, and What are the

constraints faced by women livestock producers? The aforementioned informed the need to analyse the participation of women in livestock production in Mangu Local Government Area of Plateau State.

i. describe the socioeconomic characteristic of women livestock farmers,
ii. Determine the level of women participation in livestock production,
iii. Identify the types of livestock kept by women livestock farmers,
iv. Identify the factors that affect women participation in livestock production and
v. Identify the constraints faced in livestock production.

Methodology

The study was conducted in Mangu Local Government Area of Plateau State, Nigeria. Mangu LGA has nine (9) districts namely; Mangu, Panyam, Gindiri, Langai, Mangun, Kerang, Ampang, Kombum, and Pushit. Majority of the inhabitants are peasant farmers. The climate and soil conditions of the area are suitable for growing cereal crops such as maize, guinea corn, millet, wheat, acha, rice and tuber crops such as Irish Potatoes, yam, cassava, sweet potatoes, etc. Mangu Local Government Area is located within the Northern Guinea Savannah and the climate is near temperate and could be compared to the weather found in Jos, Barakin Ladi, Bokkos and Pankshin (Nannim, 2009).

The population for the study was women Livestock farmers in Mangu Local Government Area. Data was collected with the aid of a structured questionnaire that was administered to the respondents. Double stage sampling technique was adopted. First stage was the random selection of one village from each of the nine administrative districts. Thus, nine (9) villages were selected for the study. The second stage involves purposive selection of 10 livestock farmers from each of the selected villages to give a total sample size of ninety (90).

Simple descriptive statistics such as frequency counts and percentages were used to achieve objectives 1, 3 and 5.Paticipation index was used to achieved objective 2.However, the index was constructed using a 3 point likert scale which was weighted in order of importance from; Never involved =1, rarely involve = 2, always involved =3.The respondents were asked to indicate their level of involvement in the activities of livestock production. The mean score for each of the activities was calculated and the grand mean score of the activities was divided by the number of activities to determine the level of women participation in livestock production in the study area.

Multiple regression analysis (ordinary least square) was used in order to achieve objective 4.The model is specified as follows.

$Y = a + b_1X_1 + b_2X_2 + b_3+X_3 + b_4X_4 + U$

Y = Participation Index of women livestock farmers
X_1 = Age (years)
X_2 = Years of Experience in Livestock production (years)
X_3 = Level of Education
X_4 = Extension visit (No of contact/years)
$b_1 – b_4$ = Regression coefficients
a = Constant term
U = error term

Results and Discussion

Socio – economic characteristics of the respondents

The result in (Table 1) shows that majority (56.7%) of the respondents were within middle ages of 21 - 40 years. However, the proportion of the younger women involved in livestock production was relatively small (10%). This finding is similar to that of Bayola and Intong (2006) who explained that though women loved animals, they totally disagreed with been used in raising livestock. The result also shows that majority (67.8%) of the women livestock farmers were married, 16.7% and 15.6% of the sample respondents were widowed and singles respectively. Majority of the women 57.8% in livestock production associated themselves with one form of cooperative participation. This is contrary to the work of Ayoade *et al.* (2009) which reported that majority(71.1%) of the women livestock farmers did not associate themselves with any form of cooperative participation. The educational status of the women in livestock production shows that majority (94.5%) had formal education. This finding disagrees with the work of Aqeela *et al.* (2005) that two thirds of the one billion of illiterate persons in the world are women and girls. The result shows that majority of the women in livestock production 63.3% had between 1 to 5years of farming experience this may be due to their high level of educational attainment and so see farming as less prestigious. The implication is that women in the study area are not too familiar with livestock production. The major motives for keeping livestock were essentially for commercial purpose and home consumption; however 30% of the respondent indicated that they kept livestock for commercial purposes only.

Table. 1. Socioeconomic factors affecting women participation in livestock Production

Variables	Frequency	Percentage
Age		
1 -20	9	10
21 -40	51	56.7
41 -60	30	33.3
Marital status		
Married	14	15.6
Single	61	67.8
Widowed	15	16.7
Cooperative Participation		
Yes	38	42
No	52	57.8
Personal Saving	71	78.9
Family and Relatives	11	12.2
Bank	5	5.6
Money Lenders		3.3
Years of experience		
1 – 5	57	63.3
6 -10	29	32.2
11 -15	4	4.4
Reason for keeping animals		
Home Consumption	2	2.2
Commercial	27	30
Both	61	67.8
Level of education		
Primary	10	11.1
Secondary	27	30.8
Tertiary	48	53.3
Adult	5	5.5

Source: Field Survey, 2013

Level of Women Participation in Livestock Production

The results in (Table 2) Shows that cleaning of pen, (mean 2.72), watering (mean 2.96), feeding of animals (mean 2.87) and marketing are the livestock management practices that women always participated in. This finding agrees with that of Aqeela *et al.* (2005) that women participate in various activities of livestock management such as fodder cuttings, watering, feeding of animals, animal shade cleaning, milking and dung cake making. Women rarely participate in activities such as vaccination(mean 2.30) and records keeping (mean 2.04), castration (mean1.73), culling (mean 1.73) and diagnosing (mean 1.64) this findings agrees with that of Bayola & Intong (2006) and Ayoade *et al.* (2009) that women are moderately involve in maintaining sanitation and in tethering animals inside shed at night. However, women in the study area never participated in activities such as branding (mean 1.27) and fencing (mean 1.40). The grand mean for the participation index (mean= 2.0) indicates that women in the study area rarely participated in livestock production.

Table 2: Participation index result showing the level of women Participation in Livestock Production

Management Practices	Mean score
Feeding	2.88
Cleaning	2.72
Watering	2.92
Castration	97
Vaccination	1.73
Record Keeping	2.30
Marketing	2.04
Branding	2.51
Culling	1.27
Fencing	1.73
Diagnosing	1.40
Bringing sick to vet.	1.64
Grand Mean	**2.0**

Source: Field Survey, 2013
Note: always = >2.50, rarely =2.0 – 2.50, never= 1 -2.49

Types of Livestock kept by women livestock farmers

The result in (table 3) shows that the majority of the women in livestock production kept poultry as their major livestock enterprise. This was followed by swine and goat production. This finding tallies with that of Ayoade *et al.* (2009) and Beth (2001) who explain that women rear smaller species such as poultry, sheep and goats rather than cattle, camels or buffalos since the initial cost is low, profit may be low so also the risk and men are not likely to interfere.

Table 3: Types of Livestock kept by women

Livestock types	Frequency	Percentage	Rank
Cattle	20	10.53	4^{t}
Sheep	20	10.53	4th
Goat	37	19.47	3rd
Swine	43	22.67	2nd
Poultry	70	36.84	1st
Total	**90**	**100**	

Source: Field Survey

Factors affecting women participation in livestock production

The study revealed in (Table 4) that there was positive and significant relationship between women involvement in livestock production and extension contact. Same relationship existed between participation and age. Extension contact was significant ($p<0.01$) and positive which means that the more the women have access to extension contact the more tendency for them to participate in livestock production. This finding disagrees with that of Ayoade *et al. (2009)* who explain that access to extension contact will not increase the participation of women in livestock production. Age is another factor influencing women Participation ($p<0.01$), this means that, the more the women advance in age the more they participate in livestock production. Years of experience and education were also significant although negative. Education was significant ($p<0.01$) and negative, this indicates that, the more the women are educated the less participation in livestock production. This might be as a result of educated women is more interested in white-collar jobs.

Table 4: Socioeconomic affecting women participation in livestock production

Variables	Regression coefficient	Standard error	T-value
Constant	2.251	0.404	5.572
Age X_1	0.10	1.828	1.828*
Years of experience X_2	-.063	.030	-2.057**
Education X_3	-.246	.132	-1.862*
Extension contact X_4	.150	.049	3.093***

Source: Field Survey, 2013

R^2 =53 ***= Significance of 1% ** = Significance of 5% *= Significance of 10%

Constraints Faced by women in livestock production

The results in (Table 5) shows that the major constraint to women participation in livestock Production was high cost of feed (21.70%) which ranked first followed by inadequate capital (16.72%). Yisehak (2008) reported that women in agricultural sector are involved in home production activities which involve child care, food preparation and carrying of water and fuel. Pests and diseases (15.42%) and high cost of medication (15.24%) ranked 3rd while poor market situation (12.61%) and thievery (12.90%) rank 4th.

Table 5: Constraints Faced by women in livestock production

Constraints	Frequency	Percentages
Inadequate Extension Staff	18	5.82
Pest and Diseases	53	15.82
High Cost of Feeds	74	21.70
High Cost of Medication	52	15.24
Poor Market Situation	43	12.61
Thievery	44	12.90
Inadequate Capital	57	16.72
Total	341*	99.9

Source: Field Survey, 2013

Conclusion

The majority of the women rarely participated in Livestock production. The major factors affecting their participation were high cost of feed, inadequate capital, pest diseases and high cost of medication.

Recommendations

i. There is need to identify the training need of women participation in livestock production especially in marketing and management practices.

ii. Women should be linked with micro finance banks in other to have access to which can be used to bust their level of participation in livestock production.

iii. The men should be encouraged to assist their wives so that they could have ample time to participate in livestock production activities.

References

Aqeela, S., Tanvir, A., Munir, A., and Muhammad, Z. (2005). Gender Participation in Livestock Activities and their Consumption trend of Proteineous Diet in TEHSIL FATEH JUNG. *Pakistan Journal of Agricultural Science,* **42**:3-4

Ayoade, J.A., Ibrahim, H.I. and Ibrahim, H. Y. (2009). Analysis of Women involvement in livestock production in Lafia of Nasarawa State, Nigeria. *Livestock Research for Rural Development* **21**(12).

Bayola, D.L. and Intong, J. D. (2006). Participation by Women and Children in Livestock Production in Bukidnon Province, Southern Philippines.

Beth, A.M. (2001). Right to Livestock Production. *Focus* No.06. Pp1-4.

Damisa, M.A., Samndi, J.R, and Yohanna, M. (2007). Women Participation in Agricultural production: A Probit Analysis. *Journal of Applied Science.* **7**(3):412-416.

IFAD, (1994). Women Livestock Manager the third World: Focus on Technological Issues Related to Role in Livestock Production, staff working paper18, Rome.

htt:www.ifad.org/gender/thematic/livestock/live2.htm

Mgbada, J. U. (2002). Production of Staple Crops by Rural Women in Enugu and Ebonyi State: Lesson for enhancing Poverty Alleviation programmers in: Olowu T A (Edito) Agricultural Extension and Poverty Alleviation in Nigeria. Proceedings of the Agricultural Extension Society of Nigeria. pp: 10-12.

Nannim, N. (2009). The Economic Importance of Maize production in Mangu L.G.A. Plateau State, L.G.A. Nigeria. Unpublished PGD Thesis Faculty of Agriculture, Shabu, Lafia Campus, Nasarawa State University, Keffi.

Rahman, S. A. (2004). Gender Differential in Labour Contribution and Productivity in Farm Production Empirical Evidence from Kaduna State of Nigeria. Paper Presented at the National Conference on Family held at New Theatre Complex. Benue State University, Makurdi, Nigeria. 1st-5th March.

Lawason, O. I. (2008). Female Labour force Participation in Nigeria. Determinant and Trend; Oxford Business and Economic Conference Program; Oxford United Kindom. June 22-24.

Yisehak, K. (2008). Gender Responsibility in Small Holder Mixed-Crop Livestock Production System of Jimma Zone, South West.Ethiopia.Livestock Production System of Jimma Zone, South West Ethiopia. Livestock Research for Rural Development.Volume20. Article#1.Reviewed October 7, 2009 from http://www.1rrd.org/1rrd20/1/yise20011.htm