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Rural Chicken Production: Effects of Gender on Ownership, and Management Responsibilities in Some Parts of Nigeria and Cameroon

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Abstract: A study was carried out to investigate on the ownership pattern and involvement in rearing activities of family members among the various household in West Province of Cameroon and some parts of Borno state, Nigeria. This survey focused mainly on the effects of gender on ownership and management responsibilities. With regards to gender and flock ownership pattern the study showed that women and children owned the majority of flocks (53% and 27%) in West Province of Cameroon respectively, whereas, men accounted for 20% ownership, however, the reverse was found to be the case in Borno state where men possessed (56%) followed by women (39%) and children (11%). Although all gender categories were involved in village chicken rearing activities, children had the highest responsibilities and these include shutting down the chicken in at night and letting the chicken out in the morning in West Province of Cameroon, while in Borno state is the women that has the highest responsibilities. Feeding, watering and hygiene maintenance were found to be combined responsibilities of women and children in both areas. The village chickens were housed mostly in the Kitchen (53%) in the West Province of Cameroon, whereas in Borno state mud /thatch house is the commonly used (32%) form of shelter for birds. In terms of supplementary feeds given to the village chickens maize and food scraps were mostly given in West Province of Cameroon, while millet bran followed by maize and food scrap/millet were predominantly used in Borno state Nigeria in that order. The study further showed that village chickens were not kept in specialized housing, they were often provided with simple structure to protect them from weather elements. Women and children are found to be the most convenient and the fastest means of channeling technology for improving rural chicken production in the study area.

Key words: Rural chicken, gender, ownership and management responsibilities, Nigeria and Cameroon

Introduction

Rural poultry is an important agricultural activity of almost all rural community in Africa (Kitalyi, 1998) including Nigeria and Cameroon (Ambali *et al.*, 2003; Ekue *et al.*, 2002). Estimate on livestock in Africa shows that poultry population is the highest (Sonaiya *et al.*, 1998). It is said that about 80% of these poultry are found in rural areas under free range system thus, providing scarce animal protein in the form of meat and eggs as well as being a reliable source of petty cash (Alders and Spradbrow, 2001). Rural poultry also fulfill a number of other functions for which is difficult to assign any monetary value. These include the fact that rural poultry play an active role in pest control and used for traditional ceremony and festival (Alders and Spradbrow, 2000).

The importance of rural poultry in the national economy of developing countries and its role in improving the nutritional status and income of many small communities has been very significant (FAO, 1997; Creevey, 1991). Strategic increases in the productivity of rural chicken flocks will therefore, greatly assist in poverty alleviation, improve household food-security and

protein intake of rural communities and in the long-term curb the massive urban migration of youth (FAO, 1998). However, production levels of rural poultry in many African countries fall far below desirable levels, the production system is still very backward and suffers a serious set back such as poor management practice, malnutrition, disease and predation (Permin and Hansen, 1998).

Therefore the overall objective of this study is to identify the roles play by the different gender and/or other family members in rural poultry production in West Province Cameroon and some part of Borno state Nigeria with the sole aim of suggesting improvement strategies.

Materials and Methods

Study areas: The study was carried out in West Province of Cameroon and Borno state Nigeria. Cameroon is broadly divided into four regions namely: North, South, littoral and West. These regions constitute of 10 provinces that shares international borders with Chad to the North, Gabon to the South, Congo to the South-West and Nigeria to the West. The West region is made up of West and North provinces, located in savannah type of

Table 1: Effect of gender on ownership of village chicken in west province Cameroon

Family Member	Location				Average % Per Ownership
	North East% ownership	South East% Ownership	South West% Ownership	North West% Ownership	
Husband	14.28	25	26.92	15.38	20.39
Wife	61.90	45	46.15	51.69	52.68
Children	23.80	30	26.92	26.92	26.91

Table 2: Effect of gender on ownership of village chicken in some LGA in Borno State Nigeria

Family Member	Location			Average % of Ownership
	Maiduguri% Ownership	Konduga% Ownership	Mafa% Ownership	
Husband	50.0	66.66	50	55.55
Wife	33.3	33.33	50	38.87
Children	16.66	16.66	0	11.10

vegetation. It shares border with Taraba state Nigeria. Borno state is located in the extreme North-Eastern Nigeria and shares international with Cameroon to the East, Chad to the North-East, and Niger republic to the North. It also shares national boundaries with Adamawa, Gombe and Yobe states. The inhabitants are mainly farmers and traders. It is located in sudano-sahelian vegetation zone (Ehumere, 1987).

Sampling method / questionnaires survey: A stratified sampling technique was employed in administrating standard questionnaires as prepared by Alders and Spradbrow (2001) was used to identify the roles play by the different gender and/or other family members in rural poultry production in West Cameroon and some part of Borno state Nigeria. The West Province was divided into four quadrants namely: North-East, South-West, South-East and North-West, three villages were selected at random from each of the four quadrants and five household from each village given a total of 60 households or experimental units.

In Borno state, Nigeria, three local government areas were selected randomly and 6 households were chosen in each of the local government headquarters making a total of 18 households.

Questionnaires were administered in 3 LGA namely: Maiduguri, Konduga and Mafa, and 12 villages in West Province of Cameroon (Table 2). The selection of the farmers for administration of questionnaires was based on advice of the village extension service officer, taking into consideration the previous cooperation of the farmers to such exercise. The questionnaires evaluate the type of livestock kept, ownership pattern of village chicken, task associated with rural chicken keeping, involvement of each component of the family in rearing of rural chicken, housing, feeding, watering of rural chicken and purpose of rearing.

Data analysis: Appropriate statistical method was used in analyzing the data generated from the questionnaires

survey. The data were subjected to statistical analysis using analysis of variance (ANOVA) at 5% level of statistical significance at 95% confidence interval.

Results

The result of this survey revealed that, although chickens belong to the family at large, specific ownership pattern were observed in this survey. Women owned the majority of birds (52.68%) followed by children (26.91%) and lastly men (20.39%) in the Province of Cameroon (Table 1). Unlike the situation in Borno state, Nigeria majority of the birds are owned by men (55.55%) followed by women (38.87%) and lastly children (11.10%) (Table 2).

Flocks management labour profile included activities such as shelter (Shelter shut down and let out), cleaning, feeding watering indicated that women and children involvement was by far the highest and the trend was the same for the two areas (Table 3 and 4) . According to the respondent over 50% of the rural chickens in West Province are housed in the kitchen as there shelter at night (Table 5). Whereas mud/thatch was the most commonly used type of housing by rural poultry farmers in Borno state, Nigeria (Table 6).

Village chicken live in a free range system where they scavenge around the homestead and surrounding, in spite of that farmer made effort to give supplementary feed stuff, the result of this survey further revealed that maize and food scraps constitute the bulk of supplement given to rural chickens in the West Province of Cameroon (Table 7) . Whereas in Borno state Nigeria, millet bran is the supplement mostly used as supplement feed to rural chickens (Table 8), the commodity is followed by maize and food scarps/ millet respectively. Generally the food stuff is not easily to come by within the house hold especially during the wet season, so required a lot of exercise for the chicken during scavenging. The type of supplement feed mostly given to bird may have a direct relationship with the type of food commonly consumed by the people in that area.

Discussion

The result of this survey has shown that farmers raised rural poultry based on extensive system of management with relatively few numbers of different poultry species in West Province of Cameroon and Borno State Nigeria. According to respondent this relative few number of each specie increase their chance of success based on

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Table 3: Involvement of the family in village chicken management in Some part of Borno state Nigeria

Duties	Husband	Wife	Children	Wife/ Husband	Wife/Daughter/ Husband	No. involve No. of Household
*Shutdown	-	3	1	-	5	9/18
+Let out	-	3	1	-	5	9/18
Cleaning the chicken house	-	4	2	-	-	6/18
Feeding/Watering	3	6	-	1	-	10/18

*Shut down the chicken in the night +Let the chicken out in the morning

Table 4: Involvement of the family in village chicken management in west Province of Cameroon

Duties	Wife	Husband	Children	Husband / Wife	Children/ Wife	Husband/ wife/ Children	None of the family	No. involve No. of house
*Shutdown	2	11	30	1	13	2	5	58/60
+Let out	2	26	14	-	10	-	6	58/60
Cleaning the chicken house	1	17	5	-	25	1	7	58/60
Feeding/Watering	2	13	8	-	24	1	3	58/60

*Shut down the chicken in the night+Let the chicken out in the morning

Table 5: Type of housing for rural chickens in West Province Cameroon

Location	Type of housing							No. House	Old Zinc
	Tree	Kitchen	Ground	Wood	Brick	Bamboo	Store		
North-east	1	6	1	2	4	-	-	1	-
South-west	-	9	-	1	3	1	1	-	-
South-east	-	9	1	2	-	1	1	-	1
North-west	2	8	-	1	3	-	1	-	-
Total	3	32	2	6	10	2	3	3	1
% of House type	5	53.33	3.33	10.45	16.66	3.33	5	1.66	1.66

diversification. However, village chicken still constitutes the highest proportion, this agrees with previous work on village chicken production system in the area (Ambali *et al.*, 2003; Ekue *et al.*, 2002) and in other African countries such as Niger (Abdou and Bell, 1992), Ghana (Van Velum, 1987), Mali (Kuit *et al.*, 1986), and Togo (Aklobess, 1990). The rural chicken production systems in the area, were observed to be based on the indigenous domestic fowl (*Gallus domesticus*), which is the predominant species in Africa (FAO, 1998). These chickens scavenge for most of their nutritional needs with occasional feed supplement from home grown cereals and household refuse. They may or may not have shelter and have little or no regular health control programme consequently production is low and chances of survival rate is equally slim, this agrees with (Ekue *et al.*, 2002; Ajuyah, 1999).

The survey results showed that in West province of Cameroon chicken generally belong to the entire family as a whole, but with specific ownership patterns, women owned birds in the majority of cases (52.7%), followed by children (26.9%) and men (20.3%). This result was not different from observation made in Bemenda area, Cameroon (Ekue *et al.*, 2002) and some other African countries such as Dodoma region, Tanzania (FAO, 1998). However, the situation was contrary in some part of Borno State, Nigeria where chicken predominantly owned by men (55.55%), followed by women (38.89%)

and children account for (5.55%) of the flock. Probably this could be attributed to the predetermined role played by men in terms of decision-making on issues related to poultry management (Ekue *et al.*, 2002) and other family related issues, where the decision of the husband as the overall head of the family always surpasses.

Division of labour among the different household members was another which the survey showed that all gender categories were involved with management with children having the highest responsibility of shutting down the chicken in at night and let the chicken out in the morning. Feeding and hygiene maintenance was found to be the combined responsibility of women and children, similar trend was observed in both study areas. In spite of the fact that village chicken scavenge around homestead and surroundings. Farmers give supplementary feed stuff, maize and food scraps constitute the major supplement given in West Province of Cameroon while millet bran is the most commonly used supplement followed by maize and food scraps/millet in Borno state, Nigeria.

Predator, cold and starvation among others has been found to be the cause of chicken loss, other causes include disease incidence. These could be prevented by proper management in terms of housing, health care and improvement in feeding systems. In conclusion, scavenging birds survived in harsh environment with little or no proper care in place. Their potential for high

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Table 6: Type of housing for rural chickens in Borno State Nigeria

Location	Type of housing						
	Tree	Bedroom	Mud/thatch	Mud/pot	Top of roof	Zinc	Kitchen
Maiduguri	3	-	-	-	-	2	1
Konduga	-	-	1	1	1	-	-
Mafa	2	2	1	1	-	-	-
Total	5	2	6	2	1	2	1
% of house type	26.66	10.52	31.57	10.52	5.26	10.52	5.26

Table 7: Types of supplementary feed given to rural chickens by poultry Farmers in Borno State

Location	Maize	Food scraps	Maize/Food scraps	Maize/grower mash	Poultry mash	No supplement
North-west	-	1	12	-	-	2
South-west	2	2	5	4	1	1
South-east	1	-	11	3	-	-
North-east	-	2	13	-	-	-

Table 8: Types of supplementary feed given to rural chickens by poultry Farmers in Borno State

Location	Millet Bran	Maize Bran	Food crap/millet	None
Maiduguri	2	-	2	2
Konduga	4	1	1	-
Mafa	5	1	-	-

performance could be realized through introduction of new management strategies. Women are the most suitable target group through which improvement strategies can be channeled. Community based non-governmental women organization already in existence could be an effective way of implementing village poultry improvement strategies.

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