



## A participatory assessment of gender activities in raising the most dominant village poultry species in Bauchi State, Nigeria

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### Abstract

An interactive semi-structured interview and sessions of participatory ranking exercises were conducted among three groups of poultry farmers from Gongoro, Jalam and Kutaru communities in Bauchi State, Nigeria. Following a general introduction, farmers were asked to list and rank by population the most common poultry species being raised in their respective communities. They also participated in listing and ranking the extent of gender involvement in raising the predominant poultry species identified in their respective communities. Village chicken was ranked as the predominant species reared in all three communities. Women were significantly more involved in some checklist activities in raising village chickens than men (Chi-square = 24.102; p-value <0.0001). The study highlights the possibility of using participatory approaches to identify the predominant poultry species farmers rear in their communities, to prioritize it in programs aimed at improving poultry health; to recognize and effectively utilize the roles played by men and women to promote village poultry farming.

**Keywords:** Bauchi State, Gender roles, Nigeria, Participatory ranking exercise, Village poultry species

### Introduction

The population and production of village poultry are limited by poor nutrition, predators, disease and environmental stress (Bell, 2009) and their continual offtake for human consumption. Changes in the population of village poultry need to be tracked to provide qualitative estimates of poultry species according to their population for prioritization of health and production programmes.

Of relevance to the knowledge of which species of poultry is to be prioritized for improvement in a

production and health programme is the need to understand the level of gender participation in raising the identified dominant poultry species in each community to educate each gender in its area of weakness and also to facilitate intergender cooperation in raising the identified poultry species. Though information on poultry populations can be obtained from census data and surveys, such data are often outdated (with the last census dating back to

2007)(NBS, 2007), periodic and many times do not capture important information on village poultry. Participatory techniques can be used to obtain bottom-up, timely and cost-effective information (FAO, 2000). The technique does not, for example, demand exact numbers of animals which farmers prefer to evade to avoid payment of more taxes to the government and is good for situational analysis (ACP-EU, 2013).

The need to obtain information on what poultry rural communities commonly raise and the extent of gender participation in raising the predominant poultry species in their communities are reasons for conducting this exploratory study. This study aimed at obtaining information on the common poultry species farmers rear and the extent of gender involvement in raising the predominant poultry specie in their respective communities using some participatory approaches in three communities in Bauchi State, Nigeria.

## Materials and Methods

### Study area

This study was carried out in Gongoro, Jalam and Kutaru communities in Bauchi State which occupies a land mass of 48,382 sq km that is located within latitudes 7° 52'N and 8° 56'N and longitudes 7° 25'E and 9° 37'E which has dry and wet seasons and vegetation regarded as Savannah woodland (INEC, 2008). The state has twenty Local Government Areas (LGAs), a human population of 5,515,300 (NBS, 2007) whose occupation is mainly farming and a village poultry population of about 5,832,750 (Adene & Oguntade, 2006).

### Sampling frame

This study was purposefully conducted in Gongoro, Jalam and Kutaru communities of Bauchi State.

Arrangement of meetings with the community: Permission and arrangements for the meeting with farmers and community leaders was obtained from the local chiefs in each community. Notice of the meeting was broadcasted by town criers in each community. Attendees of these general meetings were asked to identify poultry farmers in their communities. These farmers were subsequently selected and with their consent invited for a second group discussion session.

Interview team: A team of three persons: a veterinarian a sociologist and a secretary participated in facilitating the discussion and ranking exercise session. Semi-structured interview: Discussions were held in the evening around 4:00 PM and before 7:00 PM. Discussions and ranking exercises were guided by a checklist on (1) what common poultry species farmers reared in the irrespective communities and

which one is predominant; and (2) what role men and women play in raising the predominant poultry species in each community.

### Pairwise and direct matrix ranking

Participants in each community discussed and produced a list of the common poultry species in their community. These listed species were placed in a figure on both the X-axis and Y-axis and compared one against the other to elicit a pair-wise ranking (Pretty *et al.*, 1995) by the population of the common poultry specie in their respective community using beans as a tally.

Participants were also engaged in direct matrix ranking (Veldhuizen *et al.*, 1997) to find what activities men and women do in raising the predominant village poultry in their respective communities. Initially, they discussed and produced a list of the activities which by agreement we trimmed down to some 12 check-listed activities (Table 1).

Farmers were asked to allocate by consensus one, two or three beans to weigh a specific poultry-raising activity that is undertaken by males and females in their respective communities. Three beans represent a very significant involvement in an activity, two for significant involvement in an activity, and one for no or insignificant involvement in a given activity.

Total scores were obtained through the summation of the scores awarded to males and females under each activity. The score was ranked as 1 for the gender with the lower total score and 2 for the gender with the higher total score. A Chi-squared test using a Graph pad In Stat version 3 was used to analyze the overall score awarded to men and women's involvement in activities related to raising village poultry in all three communities.

## Results and Discussion

The village chicken is the most commonly encountered and characteristic species encountered in each of the communities of Gongoro, Jalam and Kutaru (Tables 1, 2, 3). Women were more involved in ownership and management activities of raising chickens than men who in contrast, outperformed women in decisions on vaccination, reception of information, construction of housing and trading of chickens (Table 4). The counts for gender activities and their level of involvement are associated (Chi squared= 24.102, p-value <0.0001) (Table 5) suggesting that women were significantly more involved in village chicken-raising activities than men. The rearing of multiple poultry species in these communities makes it costly and labour-intensive to launch health programmes for all these species. The results suggest that village chicken should be given priority over other poultry species when developing

**Table 1:** Pair-wise ranking of poultry species according to their population by farmers in Gongoro, Bauchi State

	Chicken	Guinea fowl	Duck	Scores
Chicken				2
Guinea fowl				1
Duck				0
Scores	2	1	0	

**Table 2:** Pair-wise ranking of poultry population by a group of farmers in Jalam Bauchi State, Nigeria

	Chicken	Guinea fowl	Duck	Turkey	Pigeons	Scores
Chicken						4
Guinea fowl						3
Duck						2
Turkey						1
Pigeons						0
Scores	4	3	2	1	0	

**Table 3:** Pair-wise ranking of poultry species according to their population by farmers in Kutaru, Bauchi State

	Chicken	Guinea fowl	Duck	Turkey	Pigeons	Scores
Chicken						4
Guinea fowl						3
Duck						2
Turkey						1
Pigeons						0
Scores	4	3	2	1	0	

**Table 4:** Direct matrix ranking on gender involvement in chicken raising activities in three communities of Bauchi State, Nigeria

	Communities					
	Gongoro		Jalam		Kutaru	
To what extent are men and women involved in the following poultry-raising activities?	Men	Women	Men	Women	Men	Women
Ownership of chicken	2	3	2	3	2	3
Sweeping the chicken house	1	3	1	3	1	3
Preparing a brooding place	1	3	1	3	1	3
Giving food	2	3	1	3	1	3
Giving water	1	3	1	3	1	3
Decision on the sale of chickens	2	3	2	3	2	3
Decision on eating chickens	2	3	2	3	2	3
Construction of housing	3	2	3	1	3	2
Decision on vaccination or medication of chickens	3	2	3	2	3	2
Receipt of information on rearing chickens	3	1	3	1	2	1
Benefitting from rearing chickens	1	3	2	3	2	3
Sales of chickens	3	1	3	2	3	2
Total score for gender activities	24	30	24	30	23	31
†Rank	1	2	1	2	1	2

\*Ranking scores: 3 = Very active involvement, 2= Active involvement, 1 = Passive involvement

†Rank: 1=least, 2= high

policies and programmes for poultry health and production. Selecting chicken could likely benefit many farmers and probably ensure the sustainability of the chosen intervention program. It is considered necessary to develop and implement a State and possibly a National Policy for the enhancement of

village chicken health and production should further studies corroborate this assertion.

The involvement of men in decisions on health intervention, construction of chicken houses and the marketing of chickens makes it difficult for women to effectively raise village chickens without men even though they were involved in most of the

**Table 5:** Overall mean scores and percentages of gender involvement in chicken-raising activities in three communities in Bauchi State, Nigeria

	Scores awarded by participants to the involvement of gender in village chicken-raising activities (%)			
	Passive	Active	Very active	Total (%)
Counts for male activities	12	26	26	64 (41.2)
Counts of female activities	5	14	72	91 (58.71)
Count for total activities	17 (10.9%)	40 (25.8%)	98 (63.2%)	155

Chi-squared=24.102; P< 0.0001

management activities of raising chickens.

The involvement of women in owning and managing chickens in these communities agrees with Riise *et al.* (2004) and can be explored as a tool for women's empowerment when constraints of receiving information, construction of housing, the decision on chicken vaccination and trading of chickens are overcome through the formation of farmer groups and training of such groups in activities in which women involvement is weak: possibly through selecting and training community vaccinators and sales representatives.

In conclusion, this study highlights the dominance of chicken over other poultry species. The study also revealed some levels of interdependence of both men and women in activities related to raising village chickens. Women, however, are more involved in these activities than men.

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