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Full Length Research Paper

Traditional poultry production: The role of women in Kaura-Namoda local government area, Zamfara State, Nigeria

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Poultry production has a high priority because poultry meat has better energy and protein conversion ratio than many other animals. Traditional poultry is a well-known livestock enterprise in northern Nigeria and women contribute immensely to agricultural production but still their contribution to the country's development remains largely not documented. This study therefore, aimed at assessing the role of rural women, their contribution and constraints to traditional poultry production in Kaura-Namoda local government area, Zamfara State-Nigeria. Sixty (60) women poultry keepers were randomly selected from twelve villages of four districts selected at random and administered with questionnaires to collect relevant data on socio-economic characteristics, management system adopted, output and constraints of poultry production. Data collected were analyzed using descriptive statistics. The result revealed that majority of the respondent were young (26-35 years) and married with no formal schooling whose kept between 11 to 20 bird with ratio of 1:2 of cock to hen. Extensive management system is practicing by the majority of respondent also; recorded more than 40 eggs laid by their hens with farm returns of N2000.00 to N5000.00 ($12.5 to $31.25) per week and sales their produce at market. Majority of the respondents provide local oral leaf and bark extract of mahogany and solanaceous plant for disease control while some uses local trap in controlling rodents, debeaked their birds to avoid cannivalism. Transportation, pest and diseases, weather changes, poor extension services and low capital are some of the constraints of poultry production in the study area.

Key words: Traditional poultry, women, Kaura-Namoda.

INTRODUCTION

Agricultural development is a complex process and a challenging one as well (Fabiyi et al., 2007). Poultry production has a high priority because poultry meat has better energy and protein conversion ratio than many other animals (Alabi and Aruna, 2009). They are also the most prolific of all farm animals being capable of producing up to 200 eggs or off-springs per year (Akinwumi and Ikpi, 1979) which give them a greater potential in contributing to increase in livestock output within short run. This high rate of return associated with poultry industry is however, coupled with capital/input, management and environment. Traditional or rural poultry production is a well-known livestock enterprise in Northern Nigeria where virtually every household kept small flock of between 5 to 20 birds. The term "traditional or rural poultry" is indicative of the low input husbandry of

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domestic poultry that is typically managed by rural subsistence farmers (Akinola and George, 2008). The enterprise has earned recognition in the rural socio-economy because it provides readily harvestable protein (meat and eggs) and revenue (Okitoi et al., 2007). Women in Nigeria contribute immensely to agricultural production as they play a vital role in food production for the household, farm labour, post-harvest activities, livestock husbandry as well as processing and marketing of farm produce (Yusuf et al., 2006).

According to Ironkwe and Ekwe (1998), more than 60% of the agricultural production is carried out by women in the Nigerian traditional setting. Mijindadi (1993) estimated that women are responsible for 70% of actual farm work and constitute up to 60% of the farming population. Recently, Yahaya (2002) reported that 76% of women from Oyo and Bauchi States are actively involved in farming activities. Women in North-western Nigeria despite the traditional structure of right and obligation within the rural Muslim families, still play a vital role in poultry management, animal fattening, processing and marketing of farm produce.

In spite of these roles played by women in agriculture and other economic activities, their contribution to the country's development still remains largely not documented. The present study therefore, aimed at assessing the role of rural women, their contribution and constraints to traditional poultry production in Kaura-Namoda local government area (LGA), Zamfara State, Nigeria.

MATERIALS AND METHODS

The study was carried out in 2009 in Kaura-Namoda LGA of Zamfara State, Nigeria. Kaura-Namoda LGA is situated between longitude 6° 38'East and latitude 12° 39' North. It is located in the northern part of Zamfara State. The climate of the area is variably hot, having November-April as dry season, March-April as hottest months, while May-October is the rainy season with August recording the highest amount of rainfall. Simple random sampling technique was used to select twelve villages from the four major districts (Kaura-Namoda, Kasuwar-Daji, Kuryar-Madaro and Yankaba) and 60 women poultry keepers from these twelve villages (Yardole, Matoya, Balankabe, Kanwa, Tudunwada, Magizawa, Katsaura, Kogi, Gundumi, Dandambo, Mallamawa and Kurnartullo). Questionnaires were administered to collect relevant data on socio-economic characteristics, management system adopted, output and constraints from the women selected. Data collected were analyzed using descriptive statistics, involving frequency and percentage.

RESULTS AND DISCUSSION

Socio-economic characteristics of respondents in the study area

Majority of the women poultry keepers in this area were young women. Table 1 shows that 38% of the respondents were within 26 to 35 years of age, 30% were 36 to 45 years of age, 23% were 15 to 25 years of age, 5% were 46 to 55 years of age and 4% were 56 and above years of age. The age of farmer is important because it determines the intensity of farm labour; age is therefore a factor that can significantly affect the productivity and profitability of the farm business (Falusi and Olayide, 1980; Yusuf et al., 2006); thus, women at younger age are expected to be more productive. Many of the respondents were married (80%) and few were widow (5%), while 15% were single.

In North-western Nigeria, women usually get married at 15 to 20 years; as they start a new family, rural women look for sources of additional income. Poultry rearing is considered as one of the most important way of generating additional income for rural women. Majority of the respondents had no formal education (45%); rather, they only attended Qur'anic Islamic schools. 28% attended primary schools, 18 and 5% had secondary and tertiary education, respectively, while 4% of the respondent do not attend any school.

Education makes human being great, wise and honourable (Paul and Saadullah, 1991). It is one of the most important factors for the improving socio-economic condition of the rural women, as it is very important for easy understanding, communication and adoption of new technology that helps in stimulating their production (Adams, 1982; Yusuf et al., 2006; Alabi and Aruna, 2009).

This study revealed that majority of the respondents had no formal education hence access to information and adoption of new technology will not be easy because it will be difficult for them to comprehend what they are thought or understand the reason(s) why some changes are necessary. 30% of the respondents kept 11 to 20 birds, 28% kept 21 to 30 birds, 22% kept 41 and above number of birds, while 17% kept 31 to 40 birds and 3% kept only 1 to 10 birds.

Flock size range of the respondents is an indication of the dominance of small-scale poultry production in the study area. It is low input husbandry of domestic poultry that is typically managed by rural subsistence farmers (Akinola and George, 2008).

The enterprise has earned recognition in the rural socio-economy because it provides readily harvestable protein (meat and eggs) and revenue (Okitoi et al., 2007). Majority of the respondent (38%) kept between 6 to 10 cocks, 35% kept between 1 to 5 cocks, 20% kept between 11 to 15 cocks, while 3.5% each kept between 16 to 20 and 21 and above cocks.

On the number of hens kept by the respondents, the table shows that, majority (35%) kept between 11 to 20 hens, 22% each kept between 1 to 10 and 21 to 30 hens, 15% kept between to 40 hens and 6% kept 41 and above number of hens, thus, the ratio of cocks to hens in the study area is 1:2.

This can be due to the fact that cocks were culled at an early age for either sale or slaughter.

Table 1. Socio-economic characteristics of the respondent in the study area.

Variable	Frequency	Percentage (%)
Age (years)		
15-25	14	23
26-35	23	38
36-45	18	30
46-55	3	5
56 and above	2	4
Marital status		
Single	9	15
Widow	3	5
Married	48	80
Educational status		
Never been to school	2	4
Qur'anic education	27	45
Primary education	17	28
Secondary education	11	18
Tertiary education	3	5
Flock size		
1-10	2	3
11-20	18	30
21-30	17	28
31-40	10	17
41 and above	13	22
Number of cocks in the flock		
1-5	21	35
6-10	23	38
11-15	12	20
16-20	2	3.5
21 and above	2	3.5
Number of hens in the flock		
1-10	13	22
11-20	21	35
21-30	13	22
31-40	9	15
41 and above	4	6

n = 60.

Management systems practiced and returns of the women in the study area

Majority of the respondents in the study area were practicing extensive system of poultry management. Figure 1 shows that 45% of the respondents rear their poultry in free range, 33% semi-extensive, while 22% kept their birds in doors mostly in local cages. This result revealed that majority of the birds in the study area is not provided with feed and housing instead they are allowed to scavenge for food and water during the day backyard, thus, the bird may be susceptible to high and in the night they perch on trees, nearby walls or mortality due to absence of any care and predation. Table 2 shows the percent distribution of quantity of eggs laid by the birds/week and the returns of selling the eggs and the birds to the women in the study area. Majority of the respondents (45%) reports that their birds can laid 41 eggs in a week, 20% of their birds laid between 11 to 20 eggs/week, 17% of their birds laid between 21 to 30 eggs/week, 10% of their birds

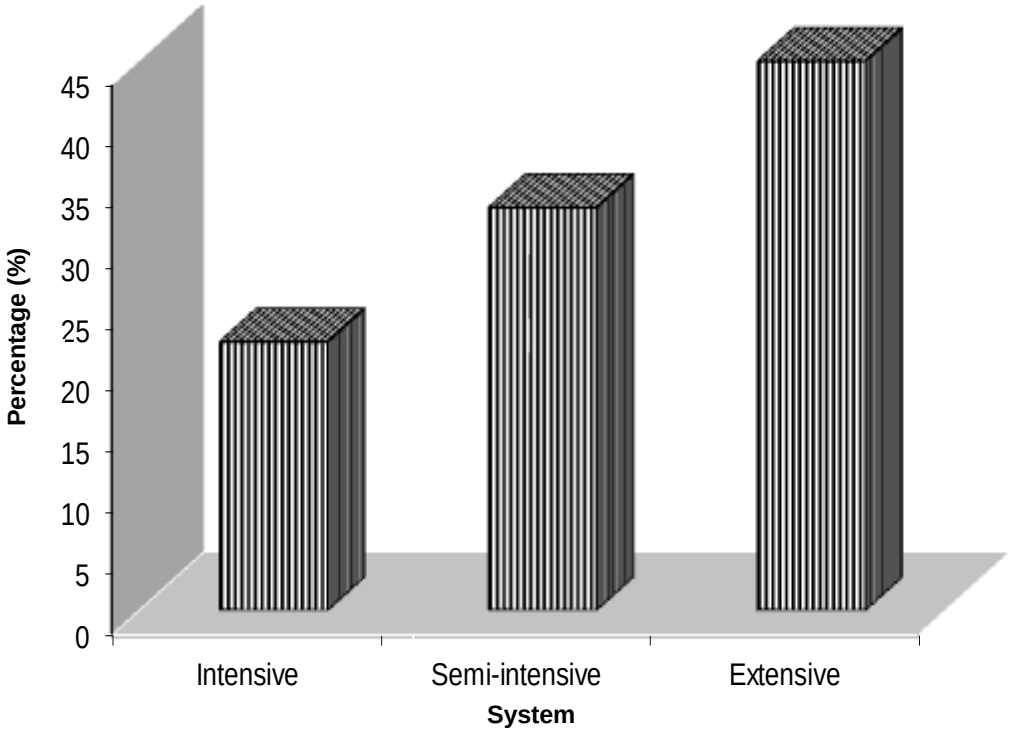

Figure 1. Management systems adopted in the study area

Table 2. Impact of traditional poultry rearing to the women of the study area.

Variable	Frequency	Percentage (%)
Number of eggs lay per week		
1-10	5	8
11-20	12	20
21-30	10	17
31-40	6	10
41 and above	27	45
Returns (N) per week		
500-2000	41	68
2000-4500	13	21
4500-6500	7	11

n = 60.

laid between 31 to 40 eggs/week and 8% of their birds laid between 1 to 10 eggs/week.

Majority of these women (68%) can realize between ₦500 to 2000 ($3.12 to 12.5) per week as returns, 21% can realize between ₦2000 to 4500 ($12.5 to 28.13) per week, while 11% realizes between ₦4500 to 6000 ($28.13 to 37.5) per week. These returns are usually spent for the off-keep of the family in buying cooking and cleaning utensils, payment of medical bills as well as donations for naming and wedding ceremonies, thus, reducing or in most cases de-shouldering these responsibilities from the husbands. On the point of sell (Figure 2), majority of the respondents (47%) do sell their eggs and birds as well at market, 25% at home, while 28% sell both at home and market.

Majority of the women (85%) in the study area do not belong to any co-operatives society; thus, they neither gain any personal financial assistance nor getting loans from the financial institutions, while few of them (15%) belong to the co-operatives society, hence, they are

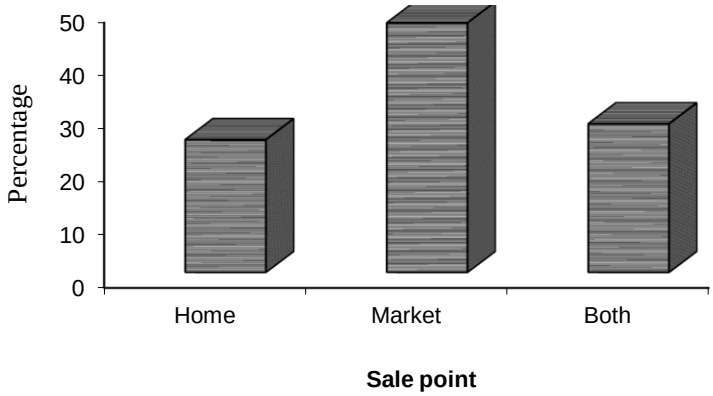

Figure 2. Sales points of poultry and their product in the study area

Table 3. Formation of association and access to loans/financial assistance by the respondents in the study area.

Variable	Frequency	Percentage (%)
Membership to co-operative society		
Yes	9	15
No	51	5
Access to loan /financial assistance		
Yes	10	17
No	50	83

n = 60.

Table 4. Health management techniques practiced by women in the study area.

Practice	Frequency	Percentage (%)
Separation	1	2
Deworming	40	67
Debeaking	3	5
Trapping	8	13
None	8	13

n = 60.

getting personal financial assistance and loans from financial institutions (Table 3).

Health management techniques practiced by women in the study area

Majority of the respondent in the study area (67%) provide their poultry with oral application of leafs and bark extract of mahogany and solanaceous plant, respectively in controlling Newcastle and Gomboro diseases, 13% of the respondent use local trap in controlling rodent and predators, 5% debeaked their poultry to avoid canivalism between them and 2% separates ills poultry from the disease-free birds to avoid infection, while the remaining 13% of the respondents are not giving any treatments to their poultry, they rather slaughter or sell them when infected (Table 4).

Women constraint in poultry production in the study area

Distribution of respondents according to the constraints militating against poultry production revealed that 50% of the respondents are having problems of transportation, due to the poor roads networks linking them to the main cities; they found it very difficult in transporting their birds and eggs especially in the rainy season and because of this, they normally encounter breakage eggs and mortality

Table 5. Distribution of respondents according to constraints of poultry production in the study area.

Problem	Frequency	Percentage (%)
Transportation	30	50
Pest and diseases	36	60
Modern vaccines	12	20
Cannivalism	6	10
Weather changes	9	15
Extension services	4	7
Low productivity	1	2
Feed availability	4	7
Capital	6	10

from the bird while taking them to/from market. 60% of the respondents also reported pest and diseases as one the major problems facing their birds especially during harmattan where most of their birds die due to Newcastle and Gomboro diseases (Table 5).

This led to mass sales of the birds at lower prizes implying lost/low farm return. Canivalism, weather changes and low productivity also are some of the constraint of poultry production as reported by 10, 15 and 2% of the respondents, respectively. Weather changes constitutes major problem in poultry industry as extremes of cold and heat causes chilling and excess hydration which led to the eventual death of bird. Cold weather (Hamattan) is also associated with outbreak of many poultry diseases like fowl cholera, Newcastle and Gomboro. Low productivity means low returns as such, these birds are local breeds without any genetic improvements in terms of growth and eggs productions thus, are smaller in size and produces small eggs of low quality. Finally, it was revealed from the present study that inadequate of extension services, modern vaccines and feed as well as low capital as some of the problems facing the poultry farmers as it represent 7, 20, and 10% respectively. Inadequate extension services led to less/no awareness of the farmers on improved breeds of these birds, proper management techniques and marketing channel. Inadequate modern vaccine and feed means continuous proliferation and attack of diseases because the birds lack feed of balanced ratio and immunity thus, susceptible to diseases which may not be controlled by the local herbs. Low capital constraint from the women of the study area led to possession of birds in smaller flocks and poor management, these will result into disease infection and eventual death of the birds hence, low farm returns.

CONCLUSION AND RECOMMENDATIONS

The present study revealed that women play a vital role in local poultry production as they posses flocks of the birds in various size, participate in the decision making of these birds and their product and utilized the income derived from the industry for their sustained livelihood. This study also reports transportation, capital, pest and diseases, feed availability and inadequate extension services as some of the constraints facing poultry production in the area.

Based on the present study, the following recommendations were made:

(1) Our rural areas should be provided with various social amenities like roads, schools and hospitals for the improvement of their standard of living and overall agricultural productivity
(2) Women should be encourage on the formation of association and co-operatives societies so that their need will be known and to be in better position to pursue for the solution of their problems
(3) Government and other financial institution should provide a soft loan with minimum or no collateral requirement so as to encourage full participation and utilization of the loans by the women in improving poultry industry
(4) Modern vaccine and feed should be made available at affordable rate as well as development of appropriate vaccination protocols and feeding managements
(5) Agricultural extension services should be geared towards women and their concern which could be achieved through training and provision of more female extension workers

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