International Journal of Agricultural Research and Review
Abbreviated Key Title: Int. J. Agric. Res Rev.
ISSN: 2360-7971 (Print) & Open Access
DOI: 10.54978/ijarr.2023. Vol. 12, Issue 12, Pp.: 131-138

Volume-12, Issue-12. December, 2024. *Full length Research Paper*

Analysis of the Problems Influencing Rural Women Poultry Farmers in Noiler Birds' Production in Kebbi State, Nigeria

***[1]Kamba, A. N, [2]Abubakar, B. Z and [3]Abubakar, M**

[1]Department of Agricultural Economics and Extension, Kebbi State University of Science and Technology Aliero
[2]Department of Agricultural Economics and Extension, Usman Danfodiyo University Sokoto, Nigeria
[3]Department of Agricultural Economics and Extension, Kebbi State University of Science and Technology Aliero

Corresponding author's email:

***Corresponding author: Kamba A. N.**
Accepted: 27/11/.2024 | **Published:** / 13/12/2024

Abstract: This study analyzed the Problems faced by Rural Women Poultry Farmers in Noiler Birds' Production in Kebbi State, Nigeria**.** The study was conducted in five Agricultural Development project (ADP) zones, namely Argungu, Birnin Kebbi, Bunza, Yauri and Zuru. Two local government areas were first purposively selected from each of the ADP zones. Two Villages were then selected in each of the selected local government areas making a total of 20 villages for the study. Finally 240 respondents were randomly selected from a sampling frame of 675 women poultry farmers. A total of 240 respondents, therefore constituted the sample size of the study. Primary data collected using a structure questionnaire and interview. The data collected were analyzed using SPSS version 3. Both descriptive statistics and problem tree were used in data analysis. Descriptive statistics were used to achieve objectives 1 while problem tree analysis were used to achieve objective 2 respectively. The results revealed that a good number (45.8%) of the respondents were within the age range 30 – 39 years. Also good number (53.3%) had non-formal education (46.7%) of them having poultry farming and trading as their major source of income. The result of problem tree indicated that disease infestation, high cost of day old chicks, high cost of feeds, weak marketing channel and in adequate capital were the problems facing poultry farmers in the study area. Similarly results reveals that majority of the respondent (53.3%) lack technical knowhow on poultry production. Based on the findings of the study, it was concluded that the Noiler breed of chicken was highly accepted among rural women poultry farmers in the study area. It is therefore, recommended. Loans and credit at single digit interest should be provided to the rural women poultry farmers in the study area by banks, government and NGOS so as 'to help them to boost their production capacity. More hatcheries for Noiler bird should be established by investors or innovated Kerosene incubator made recently by the NVRI, Vom should be made available to the women farmers by government or NGOS. So as to improve the availability of Noiler day old chicks in the study area. More so, technical and practical training on poultry feed formulation using locally available feeds ingredient should be organized for the rural women poultry farmers in the study area by government and NGOS in order to reduce the cost feeds for poultry.

Keywords: Analysis, Problems, Rural Women, Poultry Farmers, Noiler Birds

Quick Response Code

Journal Name

https://www.springjournals.net/

Citation: Kamba *et al:* Analysis of the Problems Influencing Rural Women Poultry Farmers in Noiler Birds' Production in Kebbi State, Nigeria. *Int. J. Res. Rev. 12(12) Pp.131-138, 2024*

Published By IJARR **2024**

INTRODUCTION

Poultry production contributes to people's livelihoods through numerous channels including income, food, employment, medicine, industrial usage, manure and general improvement of living condition of the rural people. Over the years, researchers around the globe have been making effort to upgrade and improve the productivity of rural chicken so as to serve as a means of empowering small – holder poultry farmers in the rural areas with particular focus on women. However it has been reported that the proper identification of appropriate chicken breeds that will be suitable to a particular environment agro – ecological zones in Nigeria is required for the growth and development of the poultry industry (Hassan *et al*, 2018). Noiler bird is one of the natural cross breeding processed of layers, broilers with the local birds carried out by Amo Farm Sieberer Hatchery Limited for small – holder farmers to address the challenges of food insecurity and financial dependency among the rural populace especially women (Philips, 2015). Noilers are multi-colored birds, dual – purpose breed that grow quickly like the broilers but not as quickly and lay many eggs like layers but not as many but most importantly it would survive the backyard environment with less resources (Aduku, 2016). It is highly acceptable in the rural areas, its meat quality and taste are similar to those of the traditional chickens and Noiler females are free from broodiness (Philips, 2015).

Noiler chicken production helps in increasing the protein intake of rural children, improve the productivity of chicken in terms of meat and egg production relative to indigenous chicken, additional income generation for rural women and youth, gender empowerment and food security (ACGG, 2015). The Noiler breed is strongly recommended for prospective investors in poultry, retirees and employees planning for retirement, NGOs women groups, cooperative societies, community – based associations, churches, mosques, schools, Military/Para-military institutions, philanthropists, and other government/private institutions as a tool for poverty alleviation (Ojere, 2018). The female Noiler matures (lays eggs) in 5 and 1/2 months while the male matures at 12 weeks old compared to local chickens that take 8-12 months to mature. Noilers have excellent survival rate that matches up with that of local chickens. The noiler lays between 150 – 180 eggs in one year while the indigenous chickens lay just 30 – 40 eggs per year due to broodiness. The noiler attains 3 – 4kg weight in 3 – 5 months compared to the local chicken that attains1.5-2.0kg after one year. Noiler meat and eggs are highly quality organic products that are very tasty and are comparable to the local chicken products. (Ojere, 2018).

Statement of the Research Problem

The increasing demand for animal protein in recent years has necessitated the local farmers to look inward for a reliable and sustainable source to meet the dietary requirements of the ever – increasing population in the study area. The local breeds of chicken which used to provide a reasonable proportion of protein supply is decreasing as a result of several factors such as: diseases, climate change, increase in population size, inadequate extension services in the rural areas and low level of literacy among rural women poultry farmers and bad husbandry practices among others. Women who constitute a greater percentage of the population are more than ever before committed to search for viable alternative source to fill the existing demand for poultry. This is with a view to address the challenges of food insecurity, infant and maternal morbidity and mortality, hunger, stunted growth and financial dependency among rural women populace. The Noiler chicken breed is the product of over a decade research and development carried out by Amo Farm Sierberer Nigeria Limited, Awe village of Oyo State, and Nigeria for small holder poultry farmers particularly women to address the challenges of food insecurity and financial dependency among rural women.

Objectives of the study

The broad objective of this study is to assess the problems faced by rural women poultry farmers in Noiler birds' production in Kebbi State, Nigeria. While the specific objectives are to: -

I Describe the socio-economic characteristics of the respondents

Ii. Find out the problems faced by rural women poultry farmers in Noiler birds' production in the study area.

METHODOLOGY

Description of the Study Area

Kebbi State is located at latitudes 10^0 10'to 13^0 15'N and longitudes 30^0 30'to 60^0 35'Ecovering an area of about 37, 699 Kilometers Square. The state is situated in the North-western part of Nigeria. It shared boundary with Sokoto State in the North, in the East, with Zamfara State, while in the south with Niger State and in the west with Niger and Benin Republics. The state comprises five agricultural development project zones (Birnin Kebbi, Argungu, Yauri, Bunza and Zuru) with twenty-one (21) local government areas. The projected population of the state is 4,440,000 people (NBS, 2021). The dominant tribes found in the state are Hausa, Fulani, lelna (Dakkarkari), Kabawa and Kambari. Other non-indigenous cultural and linguistic groups are Yoruba, Igbos, Nupe, Tivi and Idoma (Ahmed, 2021). The

vegetation of the area is savannah (Sudan, Sahel and Northern guinea savannah) agro-ecological zones. The area is characterized by tall scattered trees and shrubs usually deciduous in nature and grasses which are greenish in the rainy-season but dry and in the dried season. The major agricultural crops grown in the area include rice, sorghum, cowpea, millet, soybean, suger cane, and so on. The farm animals reared in the area are cattle, sheep, goat and poultry (Ahmed, 2021).

The state is blessed with favorable climatic conditions for vast agricultural production. The mean annual rainfall varies significantly from the Northern part to Southern part of the state, with 733mm and 1045mm of rainfall respectively. The total number of rainy days also varies from the north to the south by. The wet season starts from May/June to September/October with the heaviest rainfall mostly received in August (Dudu, 2014). Majority of the people in the state engaged in farming, fishing, gathering and trading within and outside the state (Sami, 2015).

Sampling Procedure and Sample Size

The study covered only rural women that engaged in poultry production in the area. Five (5) Agricultural development project (ADP) zones in the state were used. Two local government areas were first purposively selected from each of the ADP zones. Two Villages were then selected in each of the selected local government areas making a total of 20 villages for the study. Finally 240 respondents were randomly selected from a sampling frame of 675 women poultry farmers. A total of 240 respondents therefore constituted the sample size of the study. Below is the sampling procedure, sampling frame, sample size of the study.

Table 3: Sampling Procedure, Sampling Frame and Sample Size for the Study

ADP Zone	Selected Local Govt. Area	Selected Village Area	Number of women famers	Selected women farmers
Argungu	Argungu	Alwasa	30	10
		Lailaba	35	11
	Arewa	Yeldu	22	10
		Sarka	18	9
Bunza	Bunza	Raha	45	18
		Zogirma	28	10
	Dandi	Tukurwa	19	9
		Banizumbu	27	10
Birnin Kebbi	B/Kebbi	Tarasa	20	10
		Ruga	30	10
	Aliero	Jiga	21	10
		Sabiyal	54	14
	Maiyama	Adarai	26	10
		GiwaTazo	31	10
Yauri	Yauri	Tondigada	55	19
		Zamare	31	11
	Ngaski	Garin Baka	24	11
		Gidan Kwano	39	11
Zuru	Zuru	Senchi	48	14
		Tadurga	72	23
5	**10**	**20**	**675**	**240**

Source: Field Survey, 2023

Data Collection

A structured questionnaire containing both open and close ended questions was used to collect primary data from the respondents. While text books and journals were used as reference materials. The researcher read and interpreted the questionnaire to respondents that could not read and understand English.

Data Analysis

The data collected from respondents were analyzed using SPSS version 3. Descriptive statistics were used to achieved objective 1,2 and 4,while Problem tree Analysis were used to achieve objective 2

Problem tree Specification

Problem tree is a core tools in the logical frame work approach in solving community problems for rural development. It's a rural representation of ramous problem that community is experiencing. It was employed for this study in order to obtained better result.

The following are the step to follow in conductive problem tree analysis.

1. Start with a brainstorm on all major problems existing with the frame work of the situation analysis. With the participating respondent decide which is to be the starter (main) problem.
2. Draw a tree and write the starter problem on the trunk of the tree.
3. Encourage the respondent to brainstorm on the causes of the main problem.
4. to focus on the root causes of the problem
5. Focus attention on the root causes and write them onto the roost of the tree.
6. For each root causes write down its causes on roots lower down. Use the brainstormed idea for this.
7. Following the same procedure as in steps 2, and 3, look at what effects/impacts of the problem are and write down the primary effect on the branches of the tree.

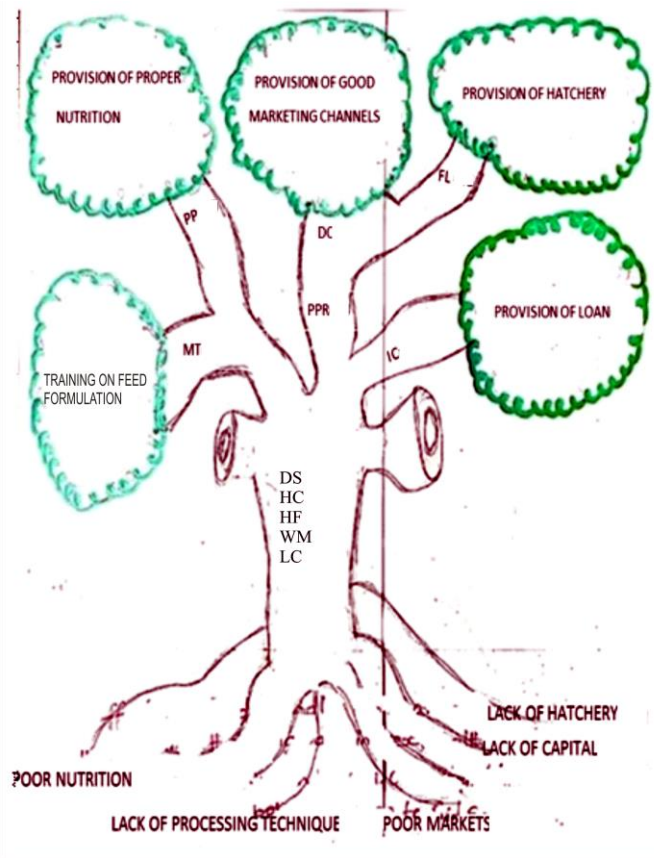
RESULTS AND DISCUSSION

Table 1: Socio-Economic Characteristics of the Respondents

Age (years)	**Frequency**	**Percentage**	**Mean**
20-29	32	13.3	44.5
30-39	110	45.8	
40-49	56	23.3	
50-59	24	10	
60 and above	18	7.5	
Total	**240**	**100**	
Education Status			
Primary	32	13.3	
Secondary	24	10.0	
Tertiary	8	3.3	
Non Formal	128	53.3	
Qur'anic	48	20.0	
Total	**240**	**100**	
Marital Status			
Single	16	6.7	
Married	136	56.7	
Divorced	40	16.7	
Widowed	48	20.0	
Total	**240**	**100**	
Number of Children			
None	16	6.7	8.0
1-5	56	23.3	
6-10	140	58.3	
11 and above	28	11.7	
Total	**240**	**100**	
Major source of income			
Poultry Farming	80	33.3	
Poultry farming and trading	112	46.7	
Husband and relatives	24	10.0	
Poultry farming and relatives	24	10.0	
Total	**240**	**100**	
Source of poultry information			
Radio	24	10.0	
Television	32	13	
Friends and relatives	152	63.3	
Extension agents	32	13.3	
Total	**240**	**100**	
Number of poultry birds			
1-20	120	50.0	45.5

21-40	40	16.7
41-50	24	10.0
51 – 60	16	6.6
61 and above	40	16.7
Total	**240**	**100**

Source: field Survey, 2023



DC= DECREASE PRODUCTION OF NOILER CHICKEN

IC= INCREASED COST OF DISEASE MANGEMENT

PP= POOR PERFORMANCE

PPR= POOR PRODUCTIVTY

FL= FINANCIAL LOOSES

MT= MOTALITY

DS= DISEASE

HC= HIGH COST OF NOILER CHICKS

HF= HIGH COST OF FEED

WM= WEAK MARKETING CHANNELS

LC= LACK OF CAPITAL

Figure 1: Problem Tree Analysis

Age of the Respondents

The result in (Table 4.1) reveals that a good number (45.8%) of the respondents were within the age range of 30-39 years, followed by (23.3%) of the respondents who were within the age range of 40-49 years, (13.3%) of them fell within the age range of 20-29 years, 10%of the respondents of were within the range of 50-59 years and only (7.5%) of them were within the age range of 60 years and above. This indicates that respondents were severally within their active and productive age. This findings is in line with that of Aliyu (2018) who reported that rural women farmers in sub-Saharan Africa usually attained their active and productive age between 40 -49 years. The findings equally agreed with korede (2016) who reported that the most productive stage of rural women in Africa is between the age range of 40-49 years, that it is within this range that most of them shoulder some parts of the family responsibilities.

Education level of the respondents

Table 4.1 reveals that more than half (53.3%) of the respondents had non-formal education, (20.0%) had Qur'anic education, (13.3%) had primary education.

(10.0%) of them had secondary education and only (3.3%) of them had tertiary education. shows that the respondents had one form of education or the other, implying that respondents could accept innovations easier. This result however, is in disagreement disagreed with that of Korede (2021) who reported that majority of rural women farmers of Sub-Saharan Africa had no formal of education.

Marital Status of the Respondents

Table 4.1 equally shows that a most (56.7%) of the respondents were married, 20.7% were widows, 18.7% of them were divorced and only 8.7% were single. This implies that majority of the respondents had one responsibility or the other. The result coincides with the findings of Bummi (2001) who revealed that African rural women farmers were mainly married with children.

Number of Children of the Respondents

The Result on the number of children of the respondents revealed that a good number (58.3%) of the respondents had 6 - 10 children, (23.3%) had 1-5 children, (20.0%) had 11 or more children while (8.7%) had no children. (Table4.1). this implies that majority of the respondents had family responsibilities. This result is in line with that of Olanike *et al*., (2018) who reported that most rural women in sub- Saharan Africa had more than five children.

Major Sources of Incomes of Respondents

Table 4.1 also depicts that a good number (46.7%) of the respondents had poultry farming and trading as their major sources, of incomes, followed by (33.39%) who had only poultry farming as their major source of income, (10.0%) also had husband and relatives as their major source while (10.0%) also had poultry farming and relatives as their major source of incomes. This indicates that all the respondents had one source of incomes or the other. The result, therefore, agreed with Aliyu (2018) who reported that majority of the rural women farmers in West Africa had one source of incomes or the other. The result of the study has father indicated that poultry production is the major source of income for majority (90.0%) of the respondents.

Major sources of poultry farming information

Table 4.1 also revealed that majority (63.3%) of the respondents received poultry farming information from friends and relatives, (13.3%) of them received extension agents, while 13.3% received from radio. This implies that there was shortage of agricultural extension agents in the study area. This finding agreed with that of Korede (2016) who reported that majority of the rural farmers in Sub-Saharan Africa source their farming information from their close friends and relatives.

Number of Poultry Birds Raised

Table 4.1 equally indicates that a good number (50.0%) of the respondents had 41-60 birds, (16.7%) had 21-40 birds, also (16.7%) or more, (10.0%) had 1-10 birds and (6.7%) of them had 61-80 birds per farmer. This indicates that the respondents were small-scale farmers. This finding is in line with that of Aliyu (2018) who reported that majority of the poultry farmers in African, were small – scale with less than 100 birds per farmer. The finding equally agreed with that of Olanike (2018) who reported that African rural women poultry farmers are small – scale farmers with 10-80 birds per farmer.

Problem Tree Analysis Results

Main Problem (TRUCK) faced by rural women poultry farmer:

The main problems faced by the rural women poultry farmers as reveal by the problem tree analysis indicated that a diseases as the core problem, followed by the high cost of poultry feeds, high cost of day old chick, weak marketing channels and in adequate capital. This implies that rural women poultry farmers were faced with a lot of challenges in the study area. The major problem that hinder poultry production in the rural setting was the diseases. The finding agreed with that of Nack *et al.*, (2005) who reported that poultry production in West Africa is faced with a lot of challenges at rural setting including tropical infectious diseases, lack of access and affordability of the production inputs, better foods and market, among others. The findings equally is in line with that of Musa *et al*, (2009) who posited that poultry production at rural setting is afflicted with so many problems but the most among them was the diseases. The same result, also is in favor of Sonaiya (2016) who reported that the problems of small-holder poultry production are many and all resolve around diseases control feed supplementation and housing, according to him in that order new castle diseases (ND) is the most important disease of rural poultry.

Causes (Roots) of problems faced by Noiler Birds production

The results of the problem tree analysis indicates that, the root causes of main problems stand for the causes of

the problems of Noilers birds production in the study area. Considerable numbers of the respondents mentioned poor nutrition as one of the causes of the problem encounter by rural women farmers in the study area. This was followed by lack of capital and lack of feed processing technique in addition of the respondents reveals lack of hatcheries and another's identified poor marketing channels as one of the root cause of the problems. The result agreed with that of Hassan (2018) who reported that the major root causes of poultry production problems at rural setting in West Africa are poor nutrition, in sufficient hatcheries, lack of capital, inadequate feed, processing techniques and poor marketing channels for birds. So also, the finding of the study consider with that of Yakubu *et al*., (2018) who reported that noiler birds production in west Africa is facing a lot of shortcoming due to poor or shortage of hatchery, lack of sufficient supply of poultry feeds, lack of sufficient funds and feed processing techniques among the rural farmers.

Effect (branches) of the problem tree analysis:

Result of the problem tree analysis also revealed that, the identified problems of Noiler chicken production have resulted into so many effects on Noiler production in the study area. According to the result in fig 5.1, a considerable number of the respondent posited that there is decrease production of Noiler chicken among individuals farmer in the communities. This was followed by other respondents who revealed high rate of mortality. Some indicated financial losses, while or also indicated increased cost of management, some selected poor productivity and performance while the rest mentioned increased cost of disease management and decreases contribution of poultry to local communities.

Solution to the problems

Figure 5.1 revealed that a considerable number of the respondents indicate awareness on proper nutrition by educating farmer on knowledge of poultry nutrition could serve as a solution to Noiler bird production problem in the study area other solution include; provision of loans at subsidized rate (single digit interest) also of the respondents revealed provision of hatcheries for Noilers birds, the establishment of good marketing channels of Noiler bird. This implies that Noiler production in the study area is facing a lot of challenge. The result is synonymous with that of Korede (2021) who reported that, Noiler chicken production in Northern Nigeria is facing a lot of constrain due to lack of proper nutrition's of the birds, lack of hatcheries, lack of capital, and poor marketing channel of Noiler birds.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, it was concluded that the Noiler breed of chicken was highly accepted among rural women poultry farmers in the study area. From the conclusion of the study the research work therefore, recommended.

i. Loan and credits at single interest should be provided to the rural women poultry farmers in the study area by banks, government and NGOs, so as to boost their production capacity

ii. Technical and practical training on poultry feed formation using locally available feed ingredients should be organized to the rural women poultry farmers in the study area by the government and NGOs in order to reduce the cost of feeds for poultry

iii. Capacity building training in the area of brooding health management, financial management, proper record keeping and marketing strategies is required in the study area by the government, and NGOS so as to help in commercialization of rural poultry production.

REFERENCES

Aduku O.D (2016). Poultry production in West African with special reference to Nigeria. Published by West African press Limited. Lagos, Nigeria, Pp 610

Amawo K.A (2015). Tropical Breeds of poultry and their performances. An international Journal of Livestock Production. 3(4) 16 – 29.

Chaheuf, N. 1990. Disease prevention in small holder village poultry production in Africa. CTA seminar on small holder rural poultry production held in Thessaly oniki ; Greece, 9 – 13 October, 1990. 1:129 – 137.

Dessie, T, Kitora, C and Peters, R, (2003). Indigenous chicken ecotypes in Ethiopia: growth and feed utilization potentials international journal of poultry science 2:144 – 152.

Dudu, (2014). The role of women in agricultural production. *Journal of Agricultural Economics Extension and Rural Development* 10 (2) Pp 78

Eddy G.R (2018). Noiler bird production in West African. Published by royal press company, Ibadan, Nigeria, Pp 202.

FOA (2021). Nigeria: Poultry industry and problems, published by Macmillan press, Ibadan Nigeria. Pp 306

IFAD (2023) IFAD experience in supporting small holder poultry production in Rome. Staff working paper. Pp 75

Ganiyu, A.M. (2005). Poultry Care: A complete guide to chicken production. Published by Mogan Press Company, Accra, Ghana .Pp 500

Gawande, S. Kalita, N, Bauna, N, and Sataria, K. (2007). Indigenous chicken farming in rural contribution of Assan, India, family poultry 17:15-29.

Hassan W.A Yakubu A. Bamidele, O. Ajayi F.O Ogudu, U.E, Alabi O. Sonaiya, E.B and Adebambo, O.A (2018). Genetic difference in performance of five chicken genotypes reared in five sub national zones in Nigeria. Proceeding of the 43rd Annual conference of the Nigeria society for animal production held at federal university of technology, Oweri, Nigeria from 18 – 22 march, 2018.