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INDIGENOUS POULTRY PRODUCTION IN OGUN STATE, NIGERIA: A CASE OF YEWA NORTH LOCAL GOVERNMENT AREA

A.J. AKINLEYE[1], *K.O. BELLO[2], J.A. OYEDEPO[2], D. ERUVBETINE[1] AND A.O. FANIMO[1]

[1]College of Animal Science and Livestock Production,
[2]Institute of Food Security, Environmental Resources and Agricultural Research (IFSERAR),
Federal University of Agriculture, Abeokuta, Nigeria.
***Corresponding author:** kazeembello19@gmail.com **Tel:** +2348032204658

ABSTRACT

A study was conducted to determine the types and spatial distribution of Indigenous Poultry (IP) in Yewa North Local Government Area of Ogun State. Five locations (Idofoi, Ibese, Imasai, Eggua and Ayetoro) were randomly selected across the geographical distribution of the Local Government Area. Data were collected from 75 respondents comprised of 15 each from the locations using a well structured questionnaire and analyzed using descriptive statistics. The result revealed that women were more involved (57.3%) in indigenous poultry production in the area. Fowl (chicken) population dominated (57.3%) and was widely distributed followed by duck (24.5%) and guinea fowl (8.60%) while turkey recorded the least population (2.4%). Eggua recorded the highest (27.3%) chicken population whereas Ayetoro had the least (15%). However, Imasai had the overall highest (22.90%) indigenous poultry in the study area while the least was recorded in Ibese (16.2%). Major challenges militating against IP in the area were disease (33.3%), pilfering (14.6%), and socio-taboo (8.0%). Only 2.7% respondents indicated feeding as a problem militating against IP. The study concluded that female and the aged were major indigenous poultry farmers in Yewa North Local Government Area of Ogun State and the prevailing indigenous poultry were chickens, ducks and guinea fowls with turkey having the least population. Imasai had the highest poultry population followed by Eggua while Ibese had the least population. Majority of the people in Yewa North Local Government Area reared indigenous poultry for income and domestic use.

Keywords: *Indigenous poultry, population, Yewa North*

INTRODUCTION

Indigenous poultry is an important source of protein producing about 36.5% of total intake of Nigerians (Okunlola and Olofinsawe, 2007). Indigenous poultry in general and chickens in particular represent valuable resources for livestock development because their extensive genetic diversity allows for rearing under varied environmental conditions, providing a range of products and functions (Horst, 1989; Sonaiya *et al*., 1999) and providing diverse income earnings and employment for people in the rural areas (Alexander, 2001).

Despite their low productivity, indigenous

poultry species are known to possess desirable characteristics such as thermotolerance, resistance to some diseases, good egg and meat flavor as well as presence of hard egg shells (Aberra, 2000). In spite of the fact that they are more in number than commercial chicken in most developing countries, they have been marginalized by decision-makers (Cumming, 1992; Alexander, 2001).

Yewa North Local Government Areas (YNLGA) in Ogun State was formerly Egbado North Local Government. Its headquarters at Ayetoro (7º14'00''N and 3º02'00"E in the north-east of the Area), came into existence via Local Government edict No.9 of 1976. This area shares boundaries with Imeko/Afon Local Government in the north, Yewa South Local Government in the south, the Republic of Benin in the west and by Abeokuta North and Ewekoro Local Government areas in the east. Other important settlements in the local government include Joga Orile, Saala Orile, Owode Ketu, Igbogila, Igan Okoto, etc. The inhabitants are mainly Yorubas most of whom are farmers. The area covers 2,087km^2 with a population of 181,826 (NPC, 2007). The area produces many agricultural products, has 97 public primary schools and 19 secondary schools and a Technical College but yet not as developed compared to other local government areas in the state.

Compared to other livestock sectors, much less has been done to improve indigenous poultry management and breeding systems. Some years back all species of indigenous poultry were seen around the area viz: chicken, duck, guinea fowl, turkey, pigeon etc but this is fast disappearing. Therefore, this study is aimed at determining the population diversification and location of indigenous poultry for conservation, intervention and food security. It will also provide base line information on indigenous poultry production in the area.

MATERIALS AND METHODS

Study Area

The study was carried out in Yewa North (former Egbado North) Local Government Areas in Ogun State. Yewa North Local Government is one of the twenty local government areas in Ogun State with its headquarters in Ayetoro. It has the largest expanse of land in the state with a size of 2,087square kilometers. The area is ecologically classified as deciduous derived savannah zone (Figure 1).

Data Collection / Procedure

Data used for this study were obtained through well structured questionnaires which were administered to the farming households (respondents). Global Positioning System (GPS) was used to determine the location and coordinates of the study areas to know the distribution of the indigenous poultry. The GPS coordinates were imported into Geographic Information System (GIS) and plotted as location maps. Data were collected on Respondents' personal data, socio economic characteristics, poultry type, species reared, flock size, problems encountered and purpose of rearing.

Mode of Administration of Questionnaire

Five areas were selected from different geographical corners of the Local Government Area which includes Yewa North-North (Idofoi), Yewa North-South (Ibese), Yewa North-East (Imasai), Yewa North West (Eggua), and Yewa North Central (Ayetoro). A purposive random sampling technique was used to select 75 farming households across

the study area. A total of 75 questionnaires were administered in all 5 settlements mentioned.

Statistical Analysis

Data obtained were analyzed using descriptive statistics such as frequency and percentage distribution. Means of some selected variable were tested using Chi-square as contained in SPSS (2006).

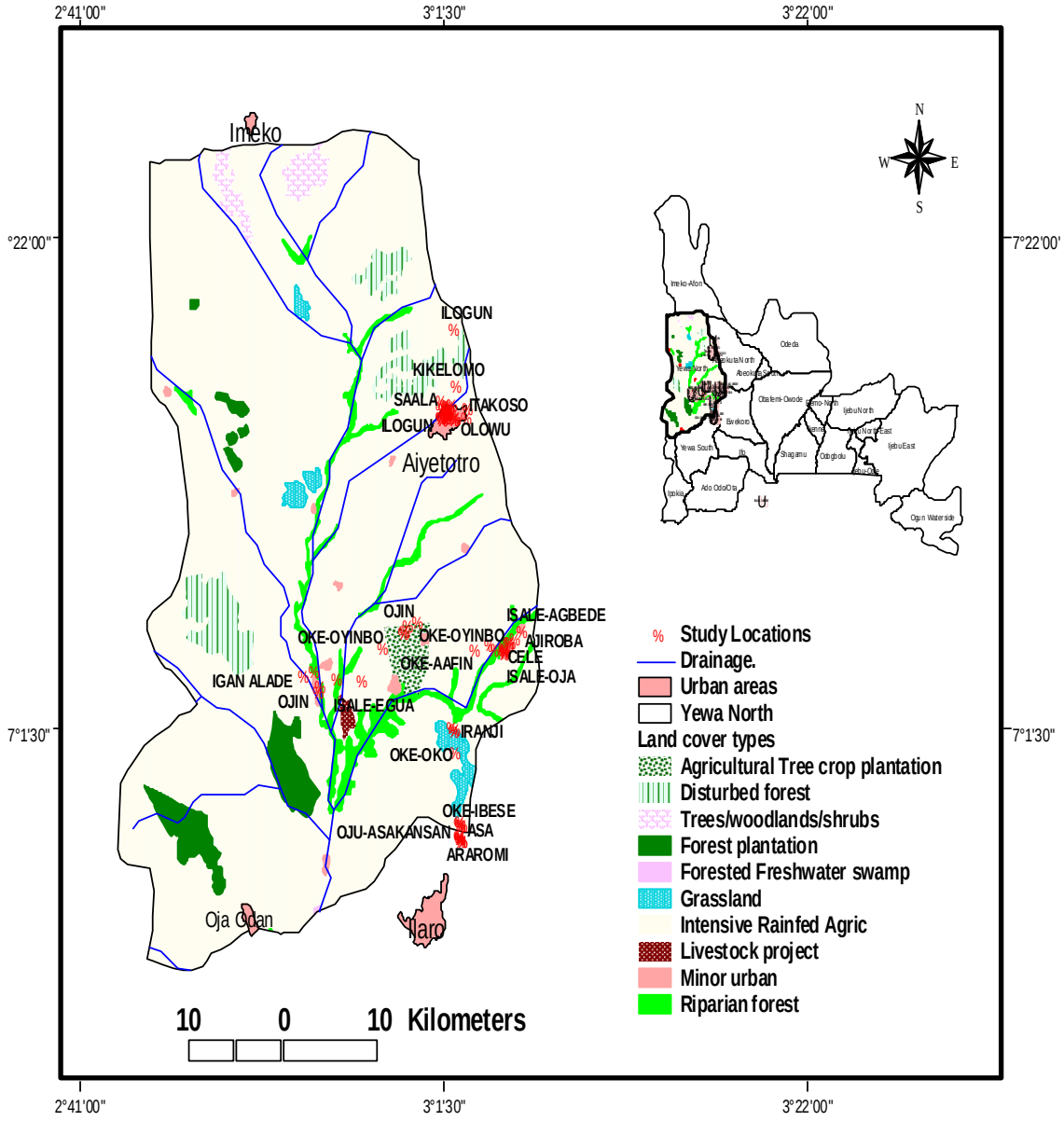

Figure 1: Land Cover Types of Yewa North Local Government Area, Ogun State, Nigeria

RESULTS

Socio-economic characteristics of respondents

Table 1 shows the socio-economic characteristics of respondents. It was evident that majorities (57.3%) of the respondents were females. Most of the respondents (56.0%) were married. Only 10.7% were single while 21.3% and 12.0% were widow and widower, respectively.

Table 1 also revealed that the age distribution of the respondents were between 41-50 and 50 and above representing 26.7% and 41.3%, respectively. Ages between 31- 40 constituted 22.7% of the population while respondents within age bracket 21-30 years were 9.3%.

Table 1: Socio-Economic Character of Respondent in Yewa North Local Government Area

Socio-Economic Characteristic		Frequency	Percentage (%)
Sex	Male	32	42.7
	Female	43	57.3
	Total	**75**	**100.0**
Marital Status	Single	8	10.7
	Married	42	56.0
	Widow	16	21.3
	Widower	9	12.0
	Total	**75**	**100.0**
Age	21-30	7	9.3
	31-40	17	22.7
	41-50	20	26.7
	>50	31	41.3
	Total	**75**	**100.0**

General Management and Performance of flocks in Yewa North Local Government Area

Table 2 reveals that 74 respondents (98.7%) feed their birds and majority (97.4%) feed theirs on daily basis while 1.3% still allow the birds to roam. The result also revealed that 92% of the respondents keep their birds on free range. Judging the general performance of the birds, 56% of the respondents adjudged their flocks as good, 38.7% believed their flock performance was fair while 5.3% felt the performance was poor.

Table 2: Management Practice and General Performance of flock in Yewa North Local Government Area

General Management and Performance	Frequency	Percent Age (%
Do you feed your poultry at all?		
Yes	74	98.70
No	1	1.30
	75	100.00
How often do you feed?		
Daily	73	97.40
Weekly	1	1.30
Occasional	1	1.30
	75	100.00
Do you allow them to free range?		
Yes	69	92.00
No	6.0	8.00
	75	100.00
General Performance		
Good	42	56.00
Fair	29	38.70
Poor	4	5.30
Total	75	100.00

Species of Indigenous Poultry reared in Yewa North Local Government Area and their Population

Common species of indigenous poultry reared were local chickens, ducks, guinea fowls, turkeys, and pigeons while the major specie was local chickens (37.3%). Four percent (4.0%) of the respondents reared ducks only and 2.7% reared only guinea fowl. It was also observed that most of the respondents reared more than one species of indigenous poultry together; 42.7% reared duck and chicken combination, 2.7% reared guinea fowl and turkey while 8.0% reared combination of duck, chicken, guinea fowl and pigeon together (Table 3).

Table 3: Species of Poultry Reared in Yewa North Local Government Area

Species	Frequency	Percentage (%)
Duck	3	4.00
Chicken	28	37.20
Guinea Fowl	2	2.70
Duck/Chicken	32	42.70
Guinea fowl/Turkey	2	2.70
Turkey/Pigeon	2	2.70
Duck/Chicken/G. Fowl/ Pigeon	6	8.00
Total	75	100.00

Flock Size of Indigenous Poultry Species in Yewa North Local Government Area

Number of Indigenous poultry species varied with respondents. Of the entire respondents, only 57.3% of the population had duck in their flocks. Eight percent (8.0%) had more than 40 ducks, 2.7% had between 31-40 ducks while 14.7% had between 21-30 ducks. Only 0.7% had between 11-20 ducks and 21.3% reared between 1-10 ducks (Table 4).

The result (Table 4) also revealed that 92.0% of the respondents had chickens among their flocks. 46.7% had above 40 chickens, 17.3% had between 31-40 chickens, 12.0% had between 21-30 chickens, 8.0% between 11-20 chickens and 8.0% respondents between 1-10 chickens.

The study revealed that none of the respondents in YNLGA rear Geese. However, the number of Guinea fowl reared in YNLGA also varied among respondents. While 10.7% of the total respondents reared Guinea fowl only 6.7% of them had between 11-20 flock sizes.

Of the entire respondents, only 7.9% of them reared turkeys, 5.3% reared between 1-10 turkeys, 1.3% had betwen11-20 turkey population while 1.3% had between 21-30 turkeys. The study also showed that 8.0% of the respondents in YNLGA had above 40 pigeons, 1.3% had between 31and 40 whereas 1.3% had between 1-10 pigeons (Table 4).

Table 4:
Flock Size of indigenous chicken in Yewa North Local Government Area

Flock Size	Frequency	Percent
Duck		
0	32	42.70
1-10	16	21.30
11-20	8	10.70
21-30	11	14.70
31-40	2	2.70
>40	6	8.00
	75	100.00
Chicken		
0	6	8.00
1-10	6	8.00
11-20	9	120
21-30	6	8.00
31-40	13	17.30
>40	35	46.60
	75	100.00
Geese		
0	75	100.00
Guinea Fowl		
0	67	89.30
1-10	3	4.00
11-20	5	6.70
21-30	0	0.00
31-40	0	0.00
>40	0	0.00
	75	100.00
Turkey		
0	69	92.00
1-10	4	5.30
11-20	1	1.30
21-30	1	1.30
31-40	0	0.00
	75	100.00
Pigeon		
0	67	89.30
1-10	1	1.30
11-20	0	0.00
21-30	0	0.00
31-40	1	1.30
>40	6	8.00
Total	75	100.00

Pictorial representation of Population Distribution of Indigenous Poultry in Yewa North Local Government Area

Eggua recorded highest chicken population (685) and this represented 27.29% of indigenous chicken in YNLGA followed by Idofoi which had a population 525 (20.92%) chickens. The least chicken population recorded was in Ayetoro (375) representing 14.94% of chicken population in the study area.

Figure 2 also shows that Imasai recorded highest duck population (270, 25.16%) followed by Idofoi which had a population 245 (22.83%) ducks. The least population of duck recorded was in Eggua (125) and this represented 11.65% of ducks reared in the study area. The result also revealed that no Turkey was raised in Eggua and Ibese (0%).

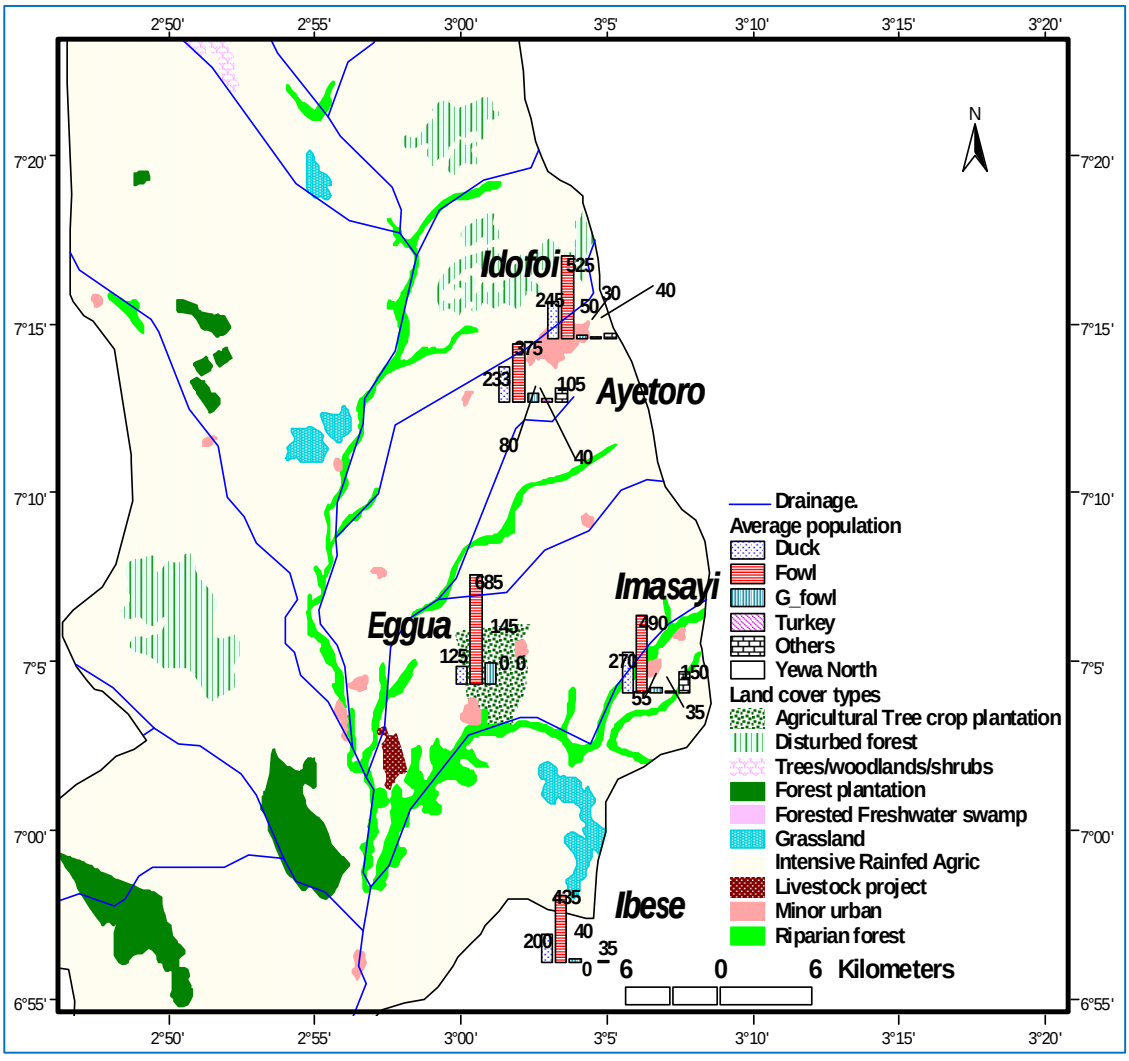

Figure 2: Map showing the average population of indigenous chickens in the study areas

General Problem Encountered by Indigenous Poultry Farmers in Yewa North Local Government Area

The major challenges encountered by Indigenous poultry farmers in the study area were as shown in Table 5. These include diseases, feeding, pilfering and social taboo. Problem due to disease conditions remained the major challenges encountered by the respondents and 33.3% of the respondents reported this. Other problems encountered were pilfering (9.3%), feeding (2.7%), socio taboo (5.3%) and 8.0% of the respondents showed that social vices was really challenging. Other challenges recorded (9.3%) including migration which was common among the wild birds in the area like pigeon and guinea fowl.

Table 5: General Problem Encountered by Indigenous poultry Farmers in Yewa North Local Government Area

General Problem Encountered	Frequency	Percents
Disease	25	33.3
Pilfering	7	9.3
Feeding	2	2.7
Socio-taboo	6	8.0
Socio-vices	4	5.3
Multiple challenges	24	32
Others	7	9.3
Total	75	100.0

Relationship between the age of respondents and purpose of rearing of Indigenous Poultry Yewa North Local Government Area

Table 6 shows the relationship between age of respondents and purpose of rearing indigenous poultry birds in YNLGA. It showed that 42.9% of the respondents between 21 and 30 years and 12.9% of respondents above 50 years reared IP main for income. However, majority (40.0%) of the respondents between 41-50 years reared IP for domestic use and 62.70% of the entire respondents across different ages reared IP for income in addition to domestic use.

Table 6: Relationship between the age of respondents and purpose of rearing of Indigenous Poultry in Yewa North Local Government Area

			Purpose of Rearing				
			Domestic use	Income	Domestic use & Income	Domestic use & Culture/ Tradition	Total
Age	21-30	Count	0	3	4	0	7
		% within Age	.0%	42.9%	57.1%	.0%	100.0%
	31-40	Count	1	0	14	2	17
		% within Age	5.9%	.0%	82.4%	11.8%	100.0%
	41-50	Count	8	1	11	0	20
		% within Age	40.0%	5.0%	55.0%	.0%	100.0%
	>50	Count	5	4	18	4	31
		% within Age	16.1%	12.9%	58.1%	12.9%	100.0%
Total		Count	14	8	47	6	75
		% within Age	18.7%	10.7%	62.7%	8.0%	100.0%

DISCUSSION

The result of this study showed that women are more involved in indigenous poultry (IP) production than the male counterparts. The results support the observations of Bishop (1995), Gueye (2000), Riise *et al*. (2004), Abubakar *et al*. (2007) and Halima (2007) who reported that women are the major owners and are more knowledgeable about indigenous poultry farming. Saleque (1999) similarly observed that poultry keeping is traditionally the role of women in many developing countries. Also, Gueye (2000) and Bagnol (2001) had earlier reported that indigenous chickens are generally owned and managed by women and children and is often an essential element of female-headed household. It could also mean that IP places little or no additional burdens on women as, apart from the provision of household food scrap, the birds find their own feed and require little supervision.

It was observed that the aged (>50 years) participate more in production of IP. This could be due to the facts that IP provides easy source of income to producer and is less strenuous to practice (Alexander, 2001). Furthermore, it could be a source of income to retirees.

The general performance of the birds was adjudged to be good while to some, it was fair. It could be due to production system adopted whereby the majority of the respondents did feed their birds daily and also allow them to free range. That could be responsible for the good performance reported by the majority of respondents.

The IP flocks in the study areas were domi-

nated by the domestic chickens which may be because the owners are predominantly producers of maize grains. "Eko" produced from maize is the main diet of the people in the study area while Imasai and it's environ are the leading producers of fried-spiced maize ("kokoro"), a product also derived from maize. It could imply that waste products from these local industries and kitchen wastes are utilized in producing good quality animal protein through this IP. Bradley (1992) and Alders (2004) also reported this possibility.

With respect to population of fowl Ayetoro recorded the least number. This could be as a result of the peri—urban nature of Ayetoro. Gueye (2009) in a study reported that every household in the rural area is involved in poultry while in urban and peri-urban, every fifth building engages in IP. This probably explained the situation at Ayetoro, the seat of Yewa North Local Government.

The major constraint militating against IP production in the study area include: Diseases, (majorly New Castle Disease), pilfering, social taboo, and combination of factors. According to Bagnol (2000) and Alexander (2001; 2004), Newcastle disease is enzootic and a sporadic problem in Africa and has a major impact on village poultry production as it can devastate flocks. Also according to Majiyagbe and Lamorde (1997) and Dipeolu *et al.* (1998), reports from some parts of Nigeria rated Newcastle disease as one of the greatest constraints to the development of rural poultry production.

In some areas like Eggua and Ibese, it was noticed that respondents wanted to keep Pigeons and Guinea Fowl but due to the social taboo that young people who rear these species may die young while it did not affect the old people. This could probably be responsible for the low Guinea Fowl population in the study area. However, the high population recorded for Guinea Fowl in Eggua could be as a result of older people involved in production of IP. Generally, Ibese recorded the least population of all the species. It could be as a result of a multinational factory situated in the area. This perhaps provides income for the people. Or more of the inhabitant of the area are more educated and do not engage much in farming.

The significant relationship between age of respondents and purpose of rearing could still be attributed to family food security and welfare. Rearing of indigenous poultry therefore serves as source of income to sustain family. Older generation too rear IP as business venture after retirement from active services.

CONCLUSION

From the findings of this study, the following conclusions could be made:

- The major indigenous poultry farmers are female and aged people with primary education qualification
- The prevailing indigenous poultry birds in Yewa North Local Government Area were chickens, ducks, few turkeys, guinea chickens and pigeons.
- Local chicken constituted the highest indigenous poultry reared followed by ducks while turkey recorded the least population among the studied communities of Yewa North Local Government Area
- Imasai recorded the highest poultry population followed by Eggua while Ibese recorded the least population among the studied communities of Yewa

North Local Government Area.

- Majority of the households in the studied communities of Yewa North Local Government Area reared indigenous poultry for income and domestic use.

RECOMMENDATIONS

- Detailed study should be carried to know the variation in the distribution of Indigenous Poultry in Yewa North Local Government Area.
- The study should be repeated in all the Local Government Areas of Ogun State to have a good database.

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