

## ASSESSMENT OF GOAT PRODUCTION CAPACITY IN FASKARI LOCAL GOVERNMENT AREA, KATSINA STATE

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### ABSTRACT

The aim of this study was to evaluate the production capacity of goat in Faskari local government area, Katsina State. Data were obtained using structured questionnaires administered to the respondents in the study area. Data were also generated on breed, sex and age of goats in the study area. A total of 101 goats were randomly sampled for this study. The breeds of goat sampled were Sahelian, Red Sokoto and West African Dwarf (WAD) with 55, 38 and 8 goats respectively. Majority of goats sampled were female, 28 bucks and 71 does. Results also show that the main production constrains in goat production in the study area was marketing. The main purpose of keeping goat was for income source.

**KEY WORDS:** Assessment, goat, production capacity, Faskari and Katsina State.

### INTRODUCTION

Indigenous goats are an important animal genetic resources for African farmers, providing meat, milk, manure, fibers hides, and satisfying various cultural and religious functions. In Africa, the survival of many indigenous goat populations is threatened by diseases, adverse climatic conditions, civil strife, pressure of economic development, abandonment of traditional farming practices, and more importantly through crossbreeding or replacement with animals from the developed world. The Red Sokoto goat or Maradi is the most predominant goat breed and accounts for about 70% of Nigeria's total goat population which has been estimated at 17.5 million (Ademosun, 1994). It was commonly found among the agro pastoralist mainly within the northern sub-humid and semi-arid zones of the country (Akpa *et al.*, 2001). The breed is predominantly reddish brown in colour and was found in the savannah zone of Nigeria (80N -110N) where it constitutes more than 90% of the goat population in that area. The West Africa Dwarf (WAD) goat is widely distributed across the rainforest belt of southern Nigeria. They are short legged and small-bodied animals, weighing between 22 and 26kg. They also present variable coat colors, ranging from black, brown, grey, red and white and sometimes combinations of these in a variety of patterns (Akpa, *et al.*, 2001). Goats are referred to as the "small man's cattle"

### MATERIALS AND METHOD

#### Study Location

This study was conducted across Faskari Local government area (Mairua, Sheme, Dakamawa, Kanonhaki and Daudawa). The study area is located within the North- West part of Nigeria within coordinates 11<sup>o</sup>43'N 7<sup>o</sup>02'E/ 11.717<sup>o</sup>N 7.033<sup>o</sup>E. The study area has an average annual Rainfall of 198mm with an average annual Temperature of 28 °C (WIKIPEDIA).

## EXPERIMENTAL ANIMALS AND MANAGEMENT

Goats were randomly sampled across the towns in Faskari LGA. Goats were identified by breeds, sex and age. Phenotypical observation was used to identify the breeds and sex. Goats were grouped into ages using their dentition (Wilson and Durkin, 1984). The experimental animals were managed under semi-intensive system. The goat houses were made using corn stalk for fencing and thatched roofing for protection against heat and rainfall. There was no organized health care provision in terms of vaccination and deworming. However, Veterinary officers were called to treat the animals when cases of ill-health occur. The kids were allowed to roam with their dams.

## RESULT AND DISCUSSION

Table 1 shows frequency of personal information for the respondents. Majority of the respondents are between 41 to 50 years of age, representing 36.4% out of the total respondents. This result is similar to the report of Adams Ohene-Yankyera (2014), who obtained 47.29 years. Majority of the respondents sampled were male (71 and 28 respectively) representing 71.7 and 28.3% respectively. This finding is similar to that of Akpa *et al.*, (1998) who reported that higher number of goat producers are male (72 and 29 respectively). Majority of the respondents had non-formal education. Akpa *et al.*, (1998) asserted that there is need for an increase in the educational status of the farmers in order to improve their rate of adoption in terms of breeding and production practices. Marital status of the respondents revealed that majority of the goat producers are married. The main stable source of income for the respondents was agriculture, where trading and other sources were minor, this shows that most of goat producers depend on Agricultural activities as their source of income with 77 respondents, representing 77.8%.

**Table 1: Frequencies Distribution of the Respondents' Personal Information**

Parameters	Levels	Frequency	Percentage (%)
Age (years)	20-40	22	22.2
	41-50	36	36.2
	51-60	30	30.3
	61 and above	11	11.3
	Total	99	100
Sex	Male	71	71.7
	Female	28	28.3
	Total	99	100
Educational status	Primary	18	18.2
	Secondary	10	10.1
	Tertiary	07	07.1
	Non-formal education	64	64.6
	Total	99	100
Marital status	Married	86	86.8
	Divorced	04	04.0
	Single	05	05.2
	Widowed	04	04.0
	Total	99	100
Sources of income	Agriculture	77	77.8
	Trading	9	9.1
	Civil servant	10	10.1
	Others	03	3.0
	Total	99	100

Table 2 shows the production characteristics of goat in the study area. Breed of goats produced in the area are mainly Sahel. This result is however in contrast with the report of Ademosun (1994) who reported that Red Sokoto goat or Maradi is the most predominant goat breed in Nigeria, accounting for about 70% of the total goat population estimated at 17.5 million.

Higher number of female (does) goats were sampled in the area than male (bucks), 27.7% and 72.3% respectively. This result is similar with the report of Egwu et al. (1995) who reported that there is preference for keeping young and more productive female animals in the herd for reproduction and multiplication. Goats kept by the producers are majorly between the age of 2 to 4 years, 31.6% and 26.7 % respectively. Majority of goat farmers prefer to keep the animal from age 2 to 4 years for breeding while animal that are above 4 years were majorly sold out or slaughter for festival or for personal consumption (Oseni *et al.*, 2008). Majority of the farmers keep flock size of 6-10 goats in the herd, indicating good prospects for goat production in the area.

Major purpose of keeping goat in the study area was for income generation followed by source of manure (57.6% and 25.2% respectively). This observation agrees with the report of Akpa, (2000) who reported that goats are kept primarily for meat and income especially by peasant farmers in Nigeria. Major constraints of goat production in the area were disease outbreak, feed and water shortage and market problems, 17.0%, 34.0%, 3.0% and 46.0% respectively. This result agrees with the finding of (Oseni *et al.*, 2008) who reported that labour, disease, feed shortage were the most pertinent constraints in goat production.

**Table 2: Frequencies Distribution of Goat Production Capacity**

Parameters	Parameters	Frequency	Percentage (%)
Goat breeds	Red Sokoto goat	38	37.62
	Sahelian goat	55	54.46
	West African goat	08	7.92
	Total	101	100.0
Sex	Male	28	27.7
	Female	73	72.3
	Total	101	100.0
Age of the goat (years)	1	4	4.0
	2	34	31.6
	3	24	23.8
	4	27	26.7
	5	14	13.9
	Total	101	100.0
Flock sizes	1-5	23	23.3
	6-10	47	47.5
	11 and above	29	29.2
	Total	99	100.0
Purpose of keeping goat	Income generation	57	57.6
	Meat	6	6.1
	Manure	25	25.2
	Skin	7	7.1
	Religious sacrifices	4	4.0
	Total	99	100.0
Constrain to goat production	Disease	17	17.0
	Feed shortage	35	34.0
	Water shortage	3	3.00
	Marketing problem	46	46.0
	Total	101	100.0

## CONCLUSION

Sahelian goats are the most predominant breed kept in the study area majorly for income generation, with more males than females engaged in the production. The average flock size in the area was 6-10 goats. The major production constraints of marketing and feed shortage.

## RECOMMENDATIONS

Majority of the goat producers in the study area had non-formal education. Hence, there is need for government and non- governmental organization intervention to increase educational status of the farmers in order to improve their rate of adoption in terms of breeding and production practices. There is also need for concerted efforts towards conservation of the uniqueness of this breed in the area for maximum utilization.

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