



SOCIO ECONOMIC PROFILE OF FARMERS AND REARING SYSTEM OF MALABARI GOATS IN CENTRAL KERALA

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Abstract

A survey study was conducted in central Kerala to investigate the socioeconomic status of farmers, feeding and housing management of Malabari goats. The current study revealed that majority of the farmers in central Kerala was above 50 years of age. Females predominated in goat rearing with an overall average of 55.24 per cent while males were only 44.76 per cent. An overall average of 52.38 per cent belonged to joint family and 47.62 belonged to nuclear family. Majority of the farmers in central Kerala had less than 25 cents of land. Overall average flock size was 8.07 ± 1.41 . The central Kerala farmers preferred to rear their goats in separate sheds. Wood was the most popular housing and flooring material and raised slatted floors were common in these parts. Most of the farmers of central Kerala depended on green fodder as the primary source of roughage to their goats while some preferred straw or hay while concentrate part of the ration was constituted by commercial livestock feed and brans.

Key words: survey, Malabari goat, socio economics.

A goat, the small ruminant shares a commendable part in the world's biodiversity and is adapted to diverse agro climatic conditions. The easily adaptive nature and

worldwide distribution makes it a dependable source of animal protein ensuring global food security.

The current world goat population is 1005.6 million (FAO, 2013) of which India's share is 13.44 per cent. Kerala, the southern state of India accounts for 0.9 per cent of India's goat population. According to the 19th Quinquennial Livestock Census, goat is the second most available livestock species in Kerala with 12.37 lakhs numbers. The Malabari and Attapady black breeds are the two recognized breeds of goats in state. In Kerala, recently there has been a trend towards meat oriented production in the state. The huge market for meat, milk and manure has prompted the Women Self Help groups (Kudumbashree) to identify goat production as an income generating cooperative movement in Kerala. Hence a study was conducted to evaluate the socio economic profile of goat farmers and rearing practices adopted by farmers of central Kerala.

Materials and methods

A survey study was conducted in central Kerala. Multistage random sampling was done to select the respondents. In the first stage, three districts were randomly selected from the central Kerala districts. A block panchayat from each district was randomly selected and in the next stage a village from

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each village was selected. From each village thirty five respondents possessing goats were selected to collect the requisite information. The selected districts were Thrissur, Malappuram and Palakkad. The selected block panchayat were Mannarkad (Palakkad), Pazhayannur (Thrissur) and Malappuram (Malappuram). The selected panchayats were Kottapadam (Palakkad), Paanjai (Thrissur), and Ponnala (Malappuram). The data on socioeconomic status, feeding and housing management was collected through personal interview using structured questionnaire.

Results and discussion

Socio economic profile of goat farmers

The results of socio economic profile of farmers are presented in table 1. The current study revealed that majority of the farmers in central Kerala was above 50 years of age. Ajithkumar and Sreekumar (1996) reported that most of the dairy farmers studied in a village in Thrissur district were in the age group 36 – 55 years. Females predominated in goat rearing with an overall average of 55.24 per cent while males were only 44.76 per cent. This finding was contradictory to that reported by Nandi et al. (2011) who published that 91.3 per cent of the Black Bengal goat farmers were women. The current survey portrayed that majority of the farmers in Central Kerala did not have any school level education and chose agriculture as the main source of income. This result was in disagreement with Nandi et al. (2011) who observed that majority of the Black Bengal farmers were small marginal farmers but most of them had primary education. According to a survey conducted in Northern Kerala by Alex et al. (2013) on goat farmers, it was observed that 97 percent of farmers had either college (1 percent) or school level education (96 percent). An overall average of 52.38 per cent belonged to joint family and 47.62 belonged to nuclear family. This is contrary to the findings of Bashir and Venkatachalapathy (2016) who published that in Malabar region of Kerala, most of the goat keepers belonged to small sized family with less than four members. Majority of the farmers in central Kerala had less than 25 cents of land. This finding was supported by Bashir

and Venkatachalapathy (2016). Average share of land holdings in the three panchayats were Kottapadam (56.71±13.45 cents) followed by Ponnala (28±10.64) and Paanjai (24.95±11.67) and overall average herd size was 8.07±1.41. This was contrary to the findings of Alex et al. (2013) who reported a mean flock size of 2.19 with an average land holding size of 947 m² describing land as one of the critical constraint in goat farming in northern Kerala. The average flock size reported by Jayashree et al. (2014) was 32.21 in majority of the farmers of southern Karnataka. The authors also observed that average number of does were higher than that of bucks or kids. In the current study female kids less than one year dominated compared to other age groups.

Housing Management

The results on housing management of goats are presented in table 2. The central Kerala farmers preferred to rear their goats in separate sheds. Wood was the most popular housing and flooring material and raised slatted floors were common in these parts. Jayashree et al. (2014) in southern Karnataka, it was observed that the goat owners preferred to house the animals only during night hours. Majority (65 percent) of the houses were kutcha sheds while some (35 percent) were pucca sheds. Most (80 percent) of the houses were open type. Kutcha type floor like mud floor was the popular (87 percent) type of flooring while some (13 percent) kept their goats on pucca floor (concrete or stone paved). Waste wood or bamboo slatted floor was preferred by some farmers (12 percent). Rajanna et al. (2013) observed that semi closed kutcha housing with kutcha flooring was the preferred type of sheep housing adopted by sheep farmers in Telengana region of Andhra Pradesh. Similarly Black Bengal goat farmers of West Bengal also favored Kutcha type of housing with earthen type of floor attached to their residence while some farmers kept their goats on cemented floor (Nandi et al. 2011). Jayashree et al. (2014) reported that majority of the farmers from southern Karnataka kept their goats on mud floors while slatted floors were adopted only in the Southern Transition agroclimatic zone.

Feeding management

Most of the farmers of central Kerala depended on green fodder as the primary source of roughage to their goats while some preferred straw or hay while concentrate part of the ration was constituted by commercial livestock feed and brans. Most of the farmers in the current study did not grow fodder. This result was supported by Jayashree et al. (2011) who reported that feeding pattern was natural type in majority of the farmers of central Karnataka and cultivated unchaffed fodder was fed to goats by

only 9.18 per cent of farmers. Alex *et al.* (2013) observed that the predominant feeding system was grazing.

Conclusion

The study revealed that majority of the goat farmers are small holders who prefer to rear female goats compared to males. They are primarily agriculturalists with less than 25 cents of land. Many of them belonged to joint family. Most of the farmers kept their animals in separate sheds. Wood was the most popular

Table 1. Socio economic profile of goat farmers of central Kerala

Particulars	Ponmala	Kottapadam	Paanjai	Pooled values
Age (average)	57±3.06	53.64±1.94	44.5±4.38	52.82±1.98
Sex (percentage)				
Male	68.57	42.86	22.86	44.76
Female	31.43	57.14	77.14	55.24
Education (percentage)				
No school level education	34.29	57.14	20	37.14
Primary school	45.71	20	20	28.57
High school	5.71	14.29	11.43	10.47
Matriculation	14.29	8.57	40	20.95
Graduation	0	0	8.57	2.86
Occupation (Percentage)				
Agriculture	91.43	62.85	11.43	55.23
Small business holders	8.57	37.15	25.71	23.81
Casual laborer	-	-	62.86	20.95
Family (Percentage)				
Joint family	51.43	77.14	28.57	52.38
Nuclear family	48.57	22.86	71.43	47.62
No. of family members (Average)	5.33±0.35	4.25±1.79	4.8±1.12	4.83±0.40
Land holdings (percentage)				
<25 cents	77.14	48.57	82.86	69.52
25-50	11.43	34.29	5.71	17.14
50-75	2.86	2.86	5.71	3.81
75-100	5.71	5.71	2.86	4.76
above 1 acre	2.86	8.57	2.86	4.76
Land holdings (Average in cents)	28±10.64	56.71±13.45	24.95±11.67	
Average flock size	5.257±1.08	14±3.23	5.3±1.30	8.07±1.41
Flock distribution (percentage)				
Male kids < 1 year	17.14	25.71	22.65	21.83
female kids < 1 year	37.14	37.14	43.39	39.22
Buck (>1 year)	2.86	5.71	2.86	3.81
Doe (>1 year)	42.86	31.43	32.08	35.46

Table 2. Goat housing system of central Kerala.

Particulars	Ponmala	Kottapadam	Paanjaj	Pooled values
Type of housing (percentage)				
lean to type	8.57	22.86	17.14	16.19
separate shed	91.43	77.14	82.86	83.8
Housing material (percentage)				
Wood	85.71	91.43	80	85.71
Concrete	0	0	11.43	3.81
Cast iron wire mesh	14.29	8.57	8.57	10.47
Flooring material (percentage)				
Wood	85.71	94.28	91.43	90.47
Concrete	8.57	5.71	8.57	7.61
Cast iron	5.71	0	0	1.9
Type of floor (percentage)				
Raised and slatted	85.71	94.28	91.43	90.47
not raised	14.29	5.72	8.57	9.52

Table 3. Goat feeding system of central Kerala

Particulars	Ponmala	Kottapadam	Paanjaj	Pooled values
Type of feed (percentage)				
Cut green fodder/grazing	100	91.43	71.43	87.62
Straw/ hay	5.71	8.57	11.43	8.57
Commercial cattle feed	65.71	94.29	57.14	72.38
Bran	71.43	85.71	51.43	69.52
Cultivation of green fodder (percentage)				
Yes	28.57	34.29	14.28	25.71
No	71.43	65.71	85.71	74.28

housing material and wooden slatted floors were very common. Most of the farmers fed their goats with green fodder or straw for roughage and commercial feed or bran as concentrate supplement. But only few farmers were having land for fodder cultivation.

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