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# Socio-economic profile and rearing constraints of goat farmers in the southern transition zone of Hassan district, Karnataka

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#### **Abstract**

Goat farming in the Southern Transition Zone of Hassan district, Karnataka, serves as a vital livelihood activity for landless, small, and marginal farmers, particularly among socially and economically disadvantaged groups. This study assessed the socio-economic profile, management practices, and constraints faced by 100 goat farmers in Arkalgudu taluk. Results indicated that most goat rearers were middle-aged (51%) and belonged predominantly to Backward Classes (61%), with a majority having completed high school education. Flock sizes were generally small, averaging 26 goats, with adult does constituting the largest proportion. Critical constraints identified included limited access to institutional credit, middlemen exploitation, inadequate marketing infrastructure, high labor and feed costs, scarcity of grazing land and green fodder, insufficient Veterinary services, and low participation of younger generations in goat rearing. These challenges collectively hinder the productivity and profitability of goat farming in the region. The study underscores the need for integrated interventions involving policy support, extension services, capacity building, and market development to enhance the sustainability and economic impact of goat farming in the district.

Keywords: Arkalgudu, constraints, goat, livelihoods, socio-economic, sustainability

### Introduction

Goat farming in Hassan district of Karnataka serves as a vital income-generating activity, offering both employment opportunities and financial support to rural households. It plays a significant role in the livelihoods of landless, small, and marginal farmers, particularly in rain-fed regions. Owing to its low initial investment, minimal maintenance requirements, and short reproductive cycle, goat farming is considered an ideal enterprise for economically weaker sections. Despite its potential, the sector faces challenges such as low body weight and growth rates, limited land availability, and high mortality among kids. Enhancing goat rearing practices through strengthened extension services, participatory approaches, and focused training programs has been emphasized as a key strategy [1]. Understanding the socio-economic profile of goat farmers, along with their production and management practices, is crucial for planning appropriate interventions. In this context, the present study was undertaken to assess goat farming practices and identify prevailing constraints in the Southern Transition Zone of Hassan district, Karnataka.

# **Materials and Methods**

The study was conducted in Arkalgudu taluk of the Southern Transition Zone (STZ) of Hassan district, Karnataka, which comprises four agro-climatic zones: Central Dry Zone, Southern Dry Zone, Southern Transition Zone, and Hilly Zone. Agriculture in the region is predominantly rain fed, with animal husbandry serving as a key source of income. Goats constitute 35.81% of the total livestock population in Arkalgudu (Table 1), making it a suitable location for the study.

Arkalgudu taluk includes five revenue divisions (hoblis), each considered a cluster. From each hobli, four villages were randomly selected, and five goat farmers (with a minimum flock size of 20) were chosen from each village, yielding a total of 100 respondents.

A structured and pre-tested interview schedule was used to collect data on socio-economic characteristics, husbandry practices, and constraints faced by goat farmers. Data were collected through personal interviews. The responses were compiled using Microsoft Excel and analyzed using SPSS software. Descriptive statistics, including frequencies and percentages, were employed to identify key trends and constraints.

www.extensionjournal.com 98

**Table 1:** Major livestock population of Southern Transition Zone of Hassan District.

Species	STZ	Arkalagudu	Percentage
Cattle	346234	79088	22.84
Buffalo	51786	15107	29.17
Sheep	74002	4269	05.76
Goat	54208	19415	35.81
Total	526230	117879	

**Source:** Joint Director of Statistics, Department of Animal Husbandry and Veterinary Services, Government of Karnataka.

### **Results and Discussion**

### A. Socio-economic profile of goat owners

The socio-economic profile of goat farmers is summarized in Table 2. A majority (51%) of respondents belonged to the middle age group, followed by young (30%) and old (19%) age groups. Middle-aged farmers, typically residing in villages, were more involved in goat rearing as a primary livelihood, whereas younger individuals pursued alternative employment alongside agriculture. Goat rearing experience was found to increase with age, aligning with the findings of various other researchers [2, 3, 4, 5, 6, 7]. Predominance of elderly farmers engaged in goat rearing was also reported in contrast to the present findings [1].

Family size analysis revealed that 49% of respondents had medium-sized families (5 to 7 members), followed by small (43%) and large (8%) families. A majority (61%) belonged to joint families, while 39% lived in nuclear families. These patterns may reflect socio-economic transitions and an increased awareness of the benefits of extended family structures. Similar observations were also made by other research workers [1, 4, 5, 6]. However, a higher prevalence of large families [8] and nuclear families was also commonly observed [3].

#### B. Education level, Social category and occupation

As presented in Table 2, the majority of goat farmers (38%) had completed high school education, followed by those with primary (24%), college and above (20%), and no formal education (18%). This trend reflects the predominance of middle-aged farmers, who typically receive basic education before adopting goat rearing due to limited alternative employment opportunities. Educated individuals are also increasingly engaging in goat farming as an entrepreneurial activity. These results partially contradict earlier findings [2, 4, 5], but most goat farmers had at least middle school education [6].

Social category analysis showed that 61% of farmers

belonged to OBC/OC categories, followed by Scheduled Castes (36%) and Scheduled Tribes (3%). This indicates a strong participation of backward communities in goat farming as a source of income <sup>[1]</sup>, but in certain other caese higher involvement of SC/ST communities was also noticed <sup>[5, 9, 10]</sup>

Regarding occupation, 73% of respondents were primarily engaged in agriculture combined with animal husbandry, 25% worked as agricultural labourers with goat rearing, and only 2% were involved in goat rearing alone. Landholding analysis revealed that 82% were marginal farmers (≤1 ha), 10% were landless, 5% were small farmers (1−2 ha), and 3% semi-medium (2−4 ha), with no large farmers reported. These findings suggest that goat farming is a preferred livelihood strategy for small and marginal farmers seeking supplemental income and financial security <sup>[1, 3, 4, 11]</sup> and also higher proportion of landless goat farmers was also not uncommon <sup>[5]</sup>.

# C. Economic status and experience in goat farming

The economic status of goat farmers revealed that 76% belonged to the low-income group ( $\leq$ Rs. 40,000/year), 16% to the medium-income group (Rs. 40,000–70,000/year), and 8% to the high-income group (>Rs. 75,000/year). The low income levels are likely due to rain fed agriculture, small flock sizes, limited access to profitable markets, and dependence on middlemen<sup>1,5&12</sup>. The predominance of medium-income farmers in goat rearing was also a feature which was noticed [4].

In terms of experience, 49% of goat keepers had low experience ( $\leq$ 15 years), 38% had medium experience (16–27 years), and 13% had high experience ( $\geq$ 28 years), with an average experience of over 16 years. This reflects the traditional nature of goat farming in the region, often passed down through generations [10, 13].

# D. Flock dynamics and flock composition

Flock size analysis revealed that 62% of goat farmers maintained small flocks (<26 goats), 33% had medium flocks (27–38 goats), and only 5% had large flocks (>39 goats), with an average flock size of 26. Flock composition consisted predominantly of adult does (57.05%), followed by bucks (24.44%) and kids (18.49%). The predominance of small flocks may be attributed to limited grazing resources and infrastructural constraints [1, 5, 6, 11, 14, 15]. The higher prevalence of medium-sized herds, likely due to regional and socio-economic differences was also recorded [4].

Table 2: Distribution of Goat rearers according to their Socio economic characteristic

Sl. No	Characteristic	Respondent (N=100)			
51. 100	Characteristic	Number	Percentage		
Age					
1	Young (29 to 41 years)	30	30%		
2	Middle-aged (42 to 53 years)	51	51%		
3	Old (54 and above years)	19	19%		
Family size					
1	Small (up to 4)	43	43%		
2	Medium (5-7)	49	49%		
3	Large (8 and above)	8	8%		
	Family type				
1	Nuclear	39	39%		
2	Joint	61	61%		

www.extensionjournal.com 99

	Education		
1	No education	18	18%
2	Primary (1-5)	24	24%
3	High school (6-10)	38	38%
4	College and above	20	20%
	Social status		
1	Schedule Caste (SC)	36	36%
2	Schedule Tribe (ST)	3	3%
3	Other Caste (OC) / OBC	61	61%
	Family occupation		
1	Agriculture & Animal Husbandry	73	73%
2	Animal Husbandry and Agriculture labourer	25	25%
3	Animal Husbandry	2	2%
	Land holding		
1	No land / Landless	10	10%
2	Marginal (0 to 1 hectare)	82	82%
3	Small (1 to 2 hectare)	5	5%
4	Semi Medium (2-4 hectare)	3	3%
	Annual income	•	
1	Low (up to Rs. 40,000)	76	76%
2	Medium (Rs.41000 to Rs.74000)	16	16%
3	High (Rs.75000 and above)	8	8%
	Goat keeping experience		
1	Low (up to 15 years)	49	49%
2	Medium (16 to 27 years)	38	38%
3	High (28 years and above)	13	13%
	Flock size		
1	Small (Up to 26)	62	62%
2	Medium (27-38)	33	33%
3	Large (39 and above)	5	5%
	Average flock composition	•	
1	Bucks	620	24.44%
2	Does	1447	57.05%
3	Kids	469	18.49%
	Income from goat farming		
1	Low (Up to Rs.12000)	66	66%
2	Medium (Rs.12000 to Rs18000)	18	18%
3	High (Rs.18000 and above)	16	16%

# Constraints of goat rearing in the region

The major constraints encountered in goat rearing, as presented in Table 3, were broadly categorized into four areas: marketing, healthcare, feeding, and general management. Based on severity, marketing-related issues were reported as the most critical, followed by constraints related to healthcare, feeding, and general husbandry practices. These categories were further analysed to identify and describe the specific challenges within each domain.

# A. Marketing constraints

The study identified marketing-related challenges as the most critical constraints faced by goat farmers. The foremost issues included middlemen intervention and lack of remunerative prices (91%), followed by inadequate marketing infrastructure (88%), low market value for kids and aged animals (83%), and fraudulent practices in markets (62%).

These constraints stem from farmers' reliance on intermediaries due to their engagement in other agricultural activities and limited access to organized markets. As a result, backyard goat farmers often experience reduced profit margins [16, 17, 18]. A lack of credit and institutional support was highlighted as major barrier.

#### **B.** Healthcare constraints

The study revealed key healthcare-related constraints in goat

rearing, with the most prominent being non-availability of vaccination and deworming services (48%), followed by the spread of infectious diseases (45%), kid mortality (43%), and high cost of treatment and medicines (36%).

These challenges highlight the need for improved access to veterinary care and timely health interventions. Regular training and awareness programs on animal health management are essential to support rural goat farmers <sup>[7, 8, 10]</sup>. Emphasis on broader issues such as lack of extension services, financial, operational, and socio-cultural constraints are also not uncommon in goat rearing <sup>[19]</sup>.

# **C.** Feeding constraints

The study identified feeding-related constraints as significant challenges to goat farming. High prices of concentrate feed (73%) emerged as the most critical constraint, followed by lack of community grazing lands (61%), seasonal green fodder shortage during summer (54%), and acute fodder scarcity due to adverse events like drought (35%).

These issues are primarily attributed to the region's dependence on rain-fed agriculture, limiting fodder availability for several months annually. Additionally, the gradual conversion of pasturelands to income-generating land uses has further reduced grazing access [13, 20, 21, 22].

<u>www.extensionjournal.com</u> 100

# D. General constraints

The study revealed that the most pressing general constraints faced by goat farmers included difficulty in accessing loans from financial institutions (93%), high labour costs (87%), lack of scientific knowledge on goat management practices (82%), declining interest among the younger generation in goat rearing (81%), and inadequate training and support from government agencies (74%).

The lack of youth involvement poses a long-term challenge to sustaining goat farming. Enhancing access to institutional credit and promoting goat-based entrepreneurship among rural youth through targeted training and financial support programs is essential <sup>[19]</sup> along with a focus to address the marketing, feeding, breeding, and healthcare constraints <sup>[5, 8, 16]</sup>

**Table 3:** Constraints perceived by the goat farmers of the study area.

CI N		Re	espondent (N=10	00)
Sl. No	Characteristic	Number	Percentage	Ranking
<u> </u>	Marl	keting constra		
		Less Price		
1	Yes	83	83%	111
2	No	17	17%	III
	Middl	lemen interve	ntion	
1	Yes	91	91%	т
2	No	9	9%	I
	Che	eating in Marl	ket	
1	Yes	62	62%	IV
2	No	38	38%	1 V
	Poor mai	rketing infras	tructure	
1	Yes	88	88%	
2	No	12	12%	II
		alth Constraiı		
	Non -availability	of Vaccinati	on / deworming	
1	Yes	48	48%	I
2	No	52	52%	1
	Inf	ectious diseas	es	
1	Yes	45	45%	II
2	No	55	55%	11
	l	Kid mortality		
1	Yes	43	43%	III
2	No	57	57%	111
	T	reatment Cos	t	
1	Yes	36	36%	IV
2	No	64	64%	1 V
	Fee	ding constrai	nts	
	Lack of co	mmunity graz	zing lands	
1	Yes	61	61%	II
2	No	39	39%	11
	Shorta	age of green fo		
1	Yes	54	54%	III
2	No	46	46%	111
	High cos	t of concentra	ite feeds	
1	Yes	73	73%	т
2	No	27	27%	I
	Acute fodder	shortage dur	ing summer	
1	Yes	35	35%	IV
2	No	65	65%	1 7
		eral Constrai		
		Scientific Kno		
1	Yes	82	82%	III
2	No	18	18%	111
		in getting loa		
1	Yes	93	93%	I
2	No	7	7%	1
	Inac	dequate train		
1	Yes	74	74%	V
2	No	26	26%	<b>'</b>
	Hig	gh Labour cos	sts	
1	Yes	87	87%	II
2	No	13	13%	11
	Lack of intere	st in goat fari	ning (youths)	
1	Yes	81	81%	IV
	No	19	19%	T A

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#### Conclusion

Goat farming remains a dependable source of livelihood in rural India, often referred to as the "poor man's cow" due to its economic relevance among marginalized communities. In Arkalagudu taluk of the Southern Transition Zone in Hassan district, traditional goat-rearing practices continue to be followed, with most households depending on goat farming for supplementary or primary income despite varying levels of experience. Socio-economic profiling of the respondents revealed that the majority (61%) belonged to Backward Classes, indicating a higher dependence on farming among socially and economically disadvantaged groups. Middle-aged individuals (51%) predominated among goat rearers, with a considerable proportion (38%) having attained high school education. The study identified several critical constraints limiting the efficiency and profitability of goat farming in the region. These included limited access to institutional credit, lack of organized marketing infrastructure, middlemen exploitation, high labour costs, low market returns, and poor engagement of the younger generation in goat husbandry. Additionally, high feed costs, scarcity of grazing resources, seasonal

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fodder shortages, inadequate animal health services, high

kid mortality, and expensive veterinary care were significant

barriers. Addressing these multifaceted challenges through policy interventions, targeted training, and improved

support services is essential to enhance the viability and

sustainability of goat farming in the region.

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<u>www.extensionjournal.com</u> 102