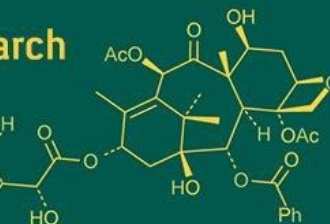
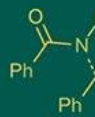


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Constraints perceived by sheep and goat farmers under extensive rearing system in Telangana state

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Abstract

The study aimed to identify and analyze the constraints faced by sheep and goat farmers under extensive rearing systems across six districts of Telangana, representing diverse agro-climatic zones. A total of 240 farmers (120 goat and 120 sheep farmers) were selected from 24 mandals using a stratified random sampling technique, with data collected through a pre-tested structured questionnaire. The findings revealed that feeding-related issues were the most pressing, with lack of grazing land (96.66%) and feed availability (72.91%) being the major concerns. Health care constraints included inadequate veterinary services (57.08%) and disease incidence (35.41%), highlighting the need for better veterinary infrastructure and awareness. Marketing inefficiencies, particularly the role of middlemen (76.66%), along with inadequate access to market information and transportation, further limited farmers' income. General constraints such as limited government subsidies (62.50%) and lack of credit access (53.75%) hindered operational improvements and scalability. The study concludes that addressing these multifaceted challenges requires an integrated strategy encompassing fodder development, mobile veterinary services, market reforms, and enhanced financial support mechanisms to improve the sustainability and profitability of small ruminant farming.

Keywords: Constraints, sheep and goat farmers, extensive rearing system, Telangana

Introduction

Telangana is one of the prominent states in sheep and goat farming, playing a vital role in the rural economy and livestock sector. Owing to its semi-arid climate, availability of grazing land, and growing demand for meat, small ruminant farming serves as a key livelihood source for marginal farmers, landless labourers, and pastoral communities. Although the practice is widespread, there is a lack of detailed information on existing management practices, production systems, disease control measures, and feeding strategies across various agro-climatic regions. Conducting a comprehensive study on sheep and goat farming in Telangana is essential to boost productivity, enhance rural livelihoods, and promote sustainable livestock practices. This study aims to identify the prevailing challenges and potential opportunities, thereby supporting effective policy-making, scientific advancements, and improved economic outcomes for farmers in the region.

Materials and Methods

The study was conducted across six districts of Telangana, representing the northern, central, and southern agro-climatic zones. In each district, four mandals were selected, resulting in a total of 24 mandals for the study. From each mandal, 10 farmers were randomly selected—comprising 5 goat farmers and 5 sheep farmers.

In total, 240 farmers participated in the study, comprising 120 sheep farmers and 120 goat farmers. Data collection was carried out using a pre-tested, structured questionnaire. The selection of mandals and farmers was facilitated by the Telangana State Animal Husbandry Department. The data collected was systematically tabulated and analysed using appropriate statistical tools to draw meaningful conclusions.

Results and Discussion

The details of various constraints faced by the sheep and goat farmers were presented in Table 1.

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Feeding Constraints

Among the feeding-related challenges, the lack of grazing land (96.66%) was identified as the most critical issue by the majority of sheep and goat farmers. This reflects increasing pressure on pasture resources due to urbanization, land-use changes, and competition from crop farming. It forces farmers to depend on low-nutritive crop residues and unconventional feeds, affecting the productivity and health of animals. The non-availability of feed (72.91%) further intensifies this issue, especially during dry seasons when green fodder becomes scarce. Farmers are often left with limited choices for quality feed, which impacts animal growth and reproduction.

Additionally, lack of water availability (9.16%) was reported as a constraint. Though relatively lower in percentage, it significantly affects feed intake, metabolism, and overall animal health, particularly in arid and semi-arid regions. These findings align with those of Rauniyar *et al.* (2000) [8], Selvam and Safiullah (2002) [9], Gurjar and Pathodiya (2008) [3], Yadav *et al.* (2009) [13], Kuldeep *et al.* (2006) [4], and Tanwar (2011) [10], who also emphasized the impact of feed and water scarcity on small ruminant rearing.

Health Care Constraints

Health-related problems were prominently reported. Inadequate veterinary services (57.08%) ranked highest among health issues, indicating a lack of access to timely and quality animal healthcare, especially in remote areas. This limits disease diagnosis, vaccination, and treatment services.

Incidence of disease (35.41%) remains a persistent problem affecting productivity and causing economic losses. Farmers struggle with recurring infections and parasitic problems due to poor preventive measures and awareness. Lack of insurance protection (7.91%) reflects the limited risk-mitigation tools available to farmers in the event of animal loss. Furthermore, predation by wild animals (6.25%), though lower in frequency, is a serious concern in forest-adjacent villages and can significantly affect flock safety.

These challenges were also highlighted in earlier studies by Tilahun *et al.* (2006) [11], Tanwar (2011) [10], Misra *et al.* (2007) [6] and Abdallah (2024) [1]. Recommendations include mobile veterinary services, awareness programs, and insurance schemes to safeguard animal health.

Marketing Constraints

Marketing inefficiencies were another major concern. The involvement of a large number of middlemen (76.66%) reduces farmers' share of consumer prices, leading to poor profitability. Lack of organized markets compels farmers to sell animals at unfair prices. A portion of farmers also mentioned lack of market information (13.33%), high price fluctuation (6.66%), and lack of transportation facility (7.50%). These factors collectively discourage market participation and limit access to profitable buyers.

These marketing-related constraints were similarly reported by Gurjar and Rajkumar (2018) [2], Rauniyar *et al.* (2000) [8], Virojirao *et al.* (2008) [12], Meganathan *et al.* (2010) [5] and Selvam and Safiullah (2002) [9]. Solutions include direct marketing channels, market information systems, and support for transportation logistics.

General Constraints

Under general constraints, limited government subsidies

(62.50%) and non-availability of credit (53.75%) were significant hurdles. These financial limitations prevent farmers from investing in better feed, healthcare, or infrastructure. Lack of working capital restricts their ability to scale or sustain operations. Inadequate space for shelter (26.25%) was another notable issue, particularly during extreme weather, which affects animal comfort and health. Other concerns include the higher cost of lambs/kids (21.66%), making herd expansion challenging for smallholders, and labour scarcity (1.25%), though reported by fewer respondents, indicates an emerging issue due to rural-urban migration.

Similar findings have been documented in the works of Kuldeep *et al.* (2006) [4], Tanwar (2011) [10], Mohan *et al.* (2009) [7] and Yadav *et al.* (2009) [13]. Addressing these issues calls for enhanced financial inclusion, government support, and housing innovations tailored to local needs.

Table 1: Constraints perceived by sheep and goat farmers under extensive rearing system

S. No	Constraints	Respondent (N=240)		Rank
		Number	Percentage	
Feeding constraints				
1	Lack of grazing land	232	96.66	I
2	Non-availability of feed	175	72.91	II
3	Lack of water availability	22	9.16	III
Health care constraints				
1	Incidence of disease	85	35.41	II
2	Inadequate veterinary services	137	57.08	I
3	Lack of insurance protection	19	7.91	III
4	Plagued by wild animals	15	6.25	IV
Marketing constraints				
1	Lack of market information	32	13.33	II
2	Involvement of large no. of middlemen	184	76.66	I
3	High Price fluctuation	16	6.66	IV
4	Lack of transportation facility	18	7.50	III
General constraints				
1	Non-availability of credit	129	53.75	II
2	Government subsidy	150	62.50	I
3	Labour scarcity	03	1.25	V
4	Higher cost of lamb/kid	52	21.66	IV
5	In-adequate space for shelter	63	26.25	III

Conclusion

The constraints perceived by sheep and goat farmers under extensive rearing systems are multifaceted and interconnected, spanning feeding, health, marketing, and general operational issues. Key problems such as lack of grazing land, inadequate veterinary services, involvement of middlemen, and limited financial support significantly hamper productivity and profitability. An integrated approach involving fodder development, veterinary outreach, market restructuring, and financial assistance programs is essential to strengthen the resilience and economic viability of small ruminant farming.

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