

GOAT FARMING IN SEMI-ARID REGIONS: IDENTIFYING CONSTRAINTS AND FARMER SUGGESTIONS IN LATUR AND HINGOLI

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Abstract

This study investigates the challenges faced by goat farmers in the semi-arid regions of Latur and Hingoli districts in Maharashtra, with a focus on understanding the socio-economic and environmental constraints that impact their livelihoods. Goat farming, a vital agricultural activity in these regions, is essential for rural income generation, but farmers face numerous obstacles such as water scarcity, inadequate grazing land, limited veterinary services, and market access. Primary data were collected through surveys and interviews with 200 goat farmers, exploring issues related to animal health, feed availability, economic returns, and the role of government support programs. The findings reveal that farmers struggle with inconsistent water supply, insufficient veterinary care, and fluctuating market prices, which hinder productivity and profitability. Additionally, farmers report limited awareness of advanced farming techniques and government schemes aimed at improving their livelihoods. Despite these challenges, the study also highlights suggestions for improvement, including better infrastructure for water management, access to veterinary services, financial support for fodder and equipment, and enhanced market linkages. This research provides valuable insights for policymakers and development practitioners to design targeted interventions to support goat farmers and enhance the sustainability of goat farming in these districts.

Keywords:- Goat farming, Semi-arid regions, Livelihood challenges, Latur and Hingoli, Agricultural sustainability

Introduction

Goat farming is a vital component of rural livelihoods in semi-arid regions like Latur and Hingoli districts of Maharashtra. In these areas, where crop production is often constrained by erratic rainfall and water scarcity, livestock farming provides a sustainable income source for many rural families (Kumar & Meenakshi, 2016). Goats are particularly well-suited to the harsh environmental conditions of these regions due to their ability to adapt to dry climates and sparse vegetation (Patil & Kale, 2017). Despite its importance, goat farming faces numerous challenges, including inadequate grazing land, water scarcity, and limited access to veterinary services (Ramakrishnan, 2016). Furthermore, goat farmers often encounter issues related to fluctuating market prices and poor infrastructure, which impact productivity and profitability (Shinde & Kharat, 2017).

Several studies have highlighted the socio-economic constraints faced by smallholder farmers in rural India, including low literacy rates, limited access to financial resources, and a lack of awareness regarding modern farming practices (Joshi & Kumar, 2018). Government schemes aimed at improving rural livelihoods, such as the National Rural Livelihoods Mission (NRLM) and Pradhan Mantri Fasal Bima Yojana (PMFBY), have had limited outreach and impact in many semi-arid regions (World Bank, 2017). This study seeks to address these issues by examining the constraints faced by goat farmers in Latur and Hingoli, exploring their socio-economic conditions, and gathering their suggestions for improving goat farming practices (Shah &

Verma, 2018). The research aims to provide valuable insights for policymakers and development practitioners to promote sustainable livelihoods for goat farmers in these regions (Rathod & Kulkarni, 2016).

Methodology

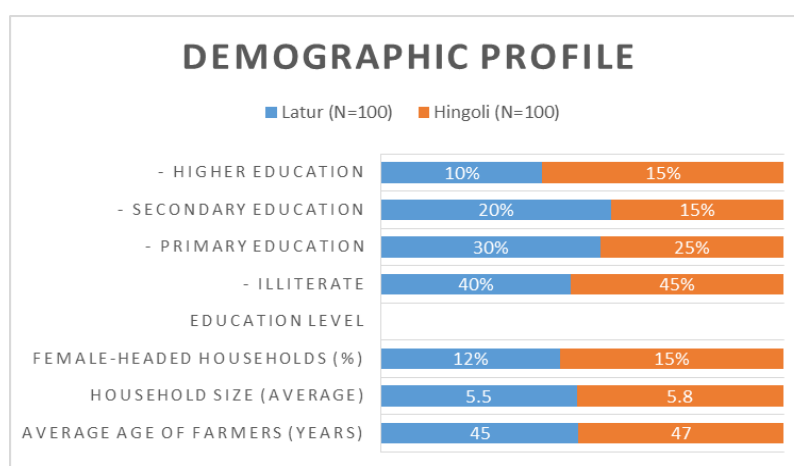
The study employed a mixed-method approach to examine constraints faced by goat farmers in Latur and Hingoli districts [4]. Primary data were collected from 200 goat farmers through structured questionnaires and in-depth interviews across 10 villages in each district. The data focused on socio-economic factors, farming practices, challenges, and farmer suggestions. Quantitative data were analyzed using statistical tools to identify trends, while qualitative insights were drawn from interviews to explore farmers' perceptions of constraints and needs. Secondary data from government reports and prior studies complemented the analysis, providing a broader context for the findings [3].

Results and Discussions

1. Demographic Profile

Table I :- Demographic Data of Goat Farmers in Latur and Hingoli

Parameter	Latur (N=100)	Hingoli (N=100)
Average Age of Farmers	45 years	47 years
Household Size (Average)	5.5	5.8
Female-Headed Households (%)	12%	15%
Education Level		
- Illiterate	40%	45%
- Primary Education	30%	25%
- Secondary Education	20%	15%
- Higher Education	10%	15%



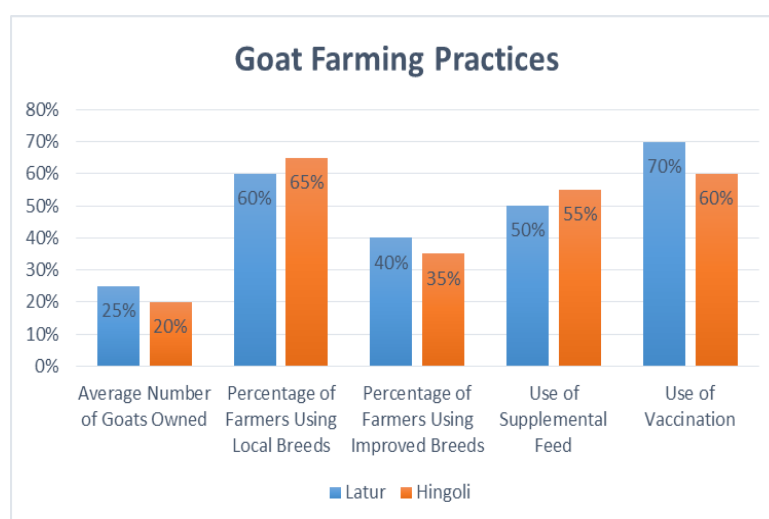
The table I provides a demographic profile of goat farmers in Latur and Hingoli. Farmers in both regions are generally middle-aged, with slightly older farmers in Hingoli. Household sizes are relatively large, suggesting extended families are common. Female-headed households are slightly more prevalent in Hingoli. Illiteracy is a challenge, with rates higher in Hingoli compared to Latur. While primary education is the most

common educational level, Hingoli shows a higher proportion of farmers with higher education, indicating potential differences in educational access and opportunities between the two regions.

2. Goat Farming Practices

Table II: Goat Farming Practices in Latur and Hingoli

Parameter	Latur	Hingoli
Average Number of Goats Owned	25	20
Percentage of Farmers Using Local Breeds	60%	65%
Percentage of Farmers Using Improved Breeds	40%	35%
Use of Supplemental Feed	50%	55%
Use of Vaccination	70%	60%



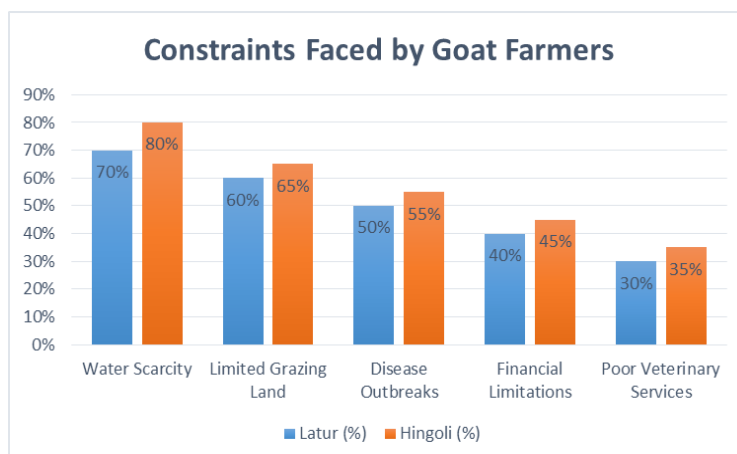
The table II provides insights into goat farming practices in Latur and Hingoli. Farmers in Latur tend to own slightly more goats on average. While local breeds are predominantly used in both regions, Hingoli shows a slightly higher reliance on them. The use of improved breeds is more common in Latur. Supplemental feeding and vaccination practices are adopted by a majority of farmers in both regions, with slightly higher adoption rates in Hingoli for supplemental feeding and in Latur for vaccination. These findings suggest potential variations in goat farming practices between the two regions, which could influence productivity and profitability.

3. Constraints Faced by Goat Farmers

Table III: Constraints Faced by Goat Farmers

Constraint	Latur (%)	Hingoli (%)
Water Scarcity	70%	80%
Limited Grazing Land	60%	65%
Disease Outbreaks	50%	55%

Constraint	Latur (%)	Hingoli (%)
Financial Limitations	40%	45%
Poor Veterinary Services	30%	35%

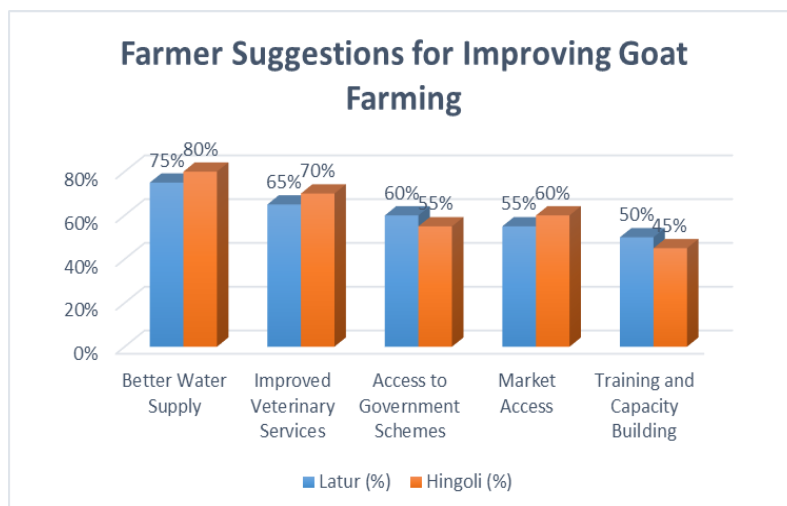


The table III highlights the major constraints faced by goat farmers in Latur and Hingoli. Water scarcity emerges as the most significant challenge in both regions, with Hingoli facing a slightly higher incidence. Limited grazing land and disease outbreaks are also major concerns, affecting a substantial proportion of farmers in both districts. Financial limitations and inadequate veterinary services are perceived as constraints by a significant number of farmers, though to a lesser extent compared to the first three challenges. These findings suggest a need for targeted interventions to address these constraints and improve the sustainability and profitability of goat farming in both regions.

4. Farmer Suggestions for Improvement

Table IV: Farmer Suggestions for Improving Goat Farming

Suggestion	Latur (%)	Hingoli (%)
Better Water Supply	75%	80%
Improved Veterinary Services	65%	70%
Access to Government Schemes	60%	55%
Market Access	55%	60%
Training and Capacity Building	50%	45%

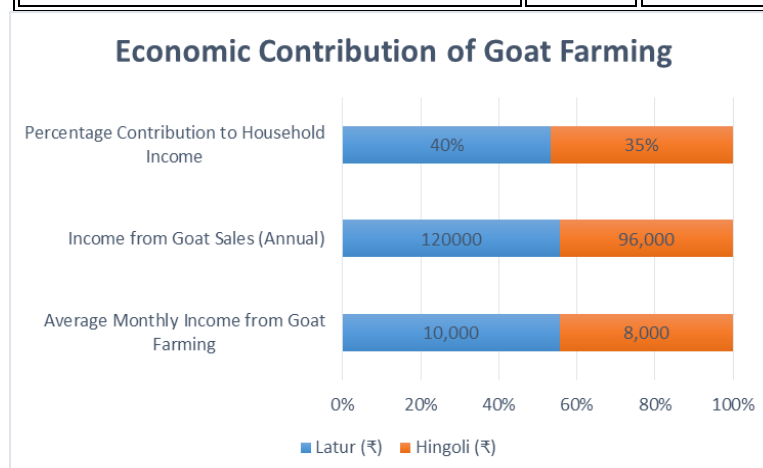


The table IV provides insights into the key suggestions offered by goat farmers in Latur and Hingoli to improve their livelihoods. Better water supply emerges as the most crucial suggestion in both regions, with a slightly higher emphasis in Hingoli. Improved veterinary services are also highly sought after, with a greater demand in Hingoli. Access to government schemes, better market access, and training and capacity building are also considered important by a substantial proportion of farmers in both regions. These findings highlight the specific needs and priorities of goat farmers, which can inform the development of effective interventions and support programs to enhance their livelihoods and contribute to the overall development of the goat farming sector in both regions.

5. Economic Impact of Goat Farming

Table: Economic Contribution of Goat Farming

Economic Indicator	Latur (₹)	Hingoli (₹)
Average Monthly Income from Goat Farming	10,000	8,000
Income from Goat Sales (Annual)	1,20,000	96,000
Percentage Contribution to Household Income	40%	35%



The table provides insights into the economic contribution of goat farming in Latur and Hingoli. Goat farmers in Latur report a higher average monthly income from goat farming compared to their counterparts in

Hingoli. Similarly, annual income from goat sales is also higher in Latur. Furthermore, goat farming contributes a larger share to household income in Latur than in Hingoli. These findings suggest that goat farming plays a more significant role in the livelihoods and economic well-being of households in Latur compared to Hingoli.

Conclusion

The study highlights the significant role of goat farming in the semi-arid regions of Latur and Hingoli, where it serves as a critical livelihood source for rural households. Despite its importance, goat farmers face several challenges, including water scarcity, limited grazing land, disease outbreaks, and inadequate veterinary services. These constraints affect productivity and profitability, with farmers also reporting limited awareness of advanced farming techniques and government schemes. However, farmers' suggestions emphasize the need for improved infrastructure, better veterinary care, enhanced market access, and financial support. The study underscores the importance of addressing these challenges through targeted interventions and policy reforms to promote sustainable goat farming in these regions. By improving access to resources and support systems, policymakers can help boost the economic sustainability of goat farming, thereby improving the livelihoods of farmers in Latur and Hingoli.

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