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Socio-economic mapping and constraints experienced by intensive sheep farmers in erstwhile districts of Rayalaseema region of Andhra Pradesh

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Abstract
The study was conducted in erstwhile districts of Rayalaseema region of Andhra Pradesh to know the data regarding the socio-economic profile and constraints encountered by the intensive sheep farmers. In the course of the research, a total of 24 intensive sheep farmers were assessed by the researcher through pre-tested questioner. Majority of the intensive sheep farmers belonged to middle aged category (66.67%), with intermediate (29.17%) and graduation level of education (29.17%). With respect to the social status, majority of the intensive sheep farmers belonged to OC category (62.5%). Among the selected intensive sheep farmers, nuclear families (87.5%) with small family size (87.5%) were dominant. Majority of the intensive sheep farmers had high annual household income (87.5%), large land holding capacity (75%), not involved in any other organizations (95.83%) and VAS were the choice of extension contact (100%). Majority of the intensive sheep farmers considered intensive sheep production as subsidiary occupation (62.5%), had < 5 years of experience (66.66%) in it and maintained Nellore strains and ND breeds with flock size of 101-150 (37.5%) and > 200 (37.5%). Pertaining to the constraints faced by the intensive sheep farmers, involvement of large no of middle men was identified as a major constraint by the majority (62.5%) of the intensive sheep farmers.

Keywords: Intensive sheep farmers, socio-economic profile, flock size, constraints

Introduction
Livestock and agriculture, being interwoven sectors, plays a fundamental role in shaping the rural economy. Across the ages, small ruminant production has been considered a supplementary means of livelihood for rural population. Serving as a key revenue stream, small ruminants offer significant employment opportunities to landless, small and marginal farmers (Kumar *et al.* 2021) [12]. Sheep, because of grazing behaviour can thrive on sparse vegetation and due to failure in periodic rains made sheep production as key source of income for rural people. As per 20th livestock census, sheep population in India rose by 14.1% (BAHS, 2019) [1]. Among 74.26 million of sheep population in India, 23.74% i.e. 17.6 million of sheep population was contributed by Andhra Pradesh (BAHS, 2019) [1]. In Andhra Pradesh majority of the sheep population was distributed in erstwhile districts of Rayalaseema region.

As the human population increases, demand for quality meat protein also increases exponentially. This demand may be fulfilled through intensive production system, as sheep are maintained under stall fed conditions by providing required amounts of nutrients to meet commercial production (Bhateshwar *et al.* 2022) [2].

Socio-economic profile of the sheep farmer plays a vital role in in sheep production practices. Flock size, manage mental practices followed in sheep production systems depends on the socio-economic profile of the sheep farmers. Therefore, a comprehensive study is required to examine the socio-economic profile of the intensive sheep farmers in detail to offer suggestions for enhancing production practices. In addition, understanding the constraints faced by intensive sheep farmers is crucial for developing effective strategies to improve their practices.

Based on the above considerations, this study aims to identify the socio-economic profile and constraints faced by the intensive sheep farmers in erstwhile districts of Rayalaseema region of Andhra Pradesh.

Materials and Methods

Location of study area

The data collection for the research was performed in the erstwhile districts of Rayalaseema region of Andhra Pradesh *viz*, YSR Kadapa, Kurnool, Chittoor and Anantapur.

Profile of study area

Rayalaseema region is bordered by Karnataka in the West, Tamil Nadu in the South, Coastal region of Andhra Pradesh in the East and Telangana in the North. As per 20th livestock census, population of cattle, buffalo, sheep, goat, swine and poultry are 1,940,349, 1,278,559, 10,479,103, 2,608,430, 30,985 and 20,143,253, respectively. Erstwhile districts of Rayalaseema region of Andhra Pradesh includes four districts, such as Chittoor, YSR Kadapa, Kurnool and Anantapur.

Selection of respondents

The present research was carried out in erstwhile districts of Rayalaseema region of Andhra Pradesh, which includes Chittoor, YSR Kadapa, Kurnool and Anantapur. A total of 24 intensive sheep farmers (six from each district) were selected using purposive, simple random sampling technique. From YSR Kadapa district, two intensive sheep farms from Rajupalem and Kamalapuram each, 1 from C.K. Dinne and Pulivendula each, were selected. In Kurnool district, 2 intensive sheep farmers from Panyam and Mahanandi, each and 1 intensive sheep farm form Sirvella and Peapally, each were selected. In Chittoor district, 3 from Thamballapalle, 2 from Thottambedu and 1 intensive sheep farm from Chandragiri were selected. In Anantapur district, 2 intensive sheep farms from Pandavavanam and 1 intensive sheep farm from Chenne Kothapalli, Kotha Cheruvu, Penukonda and Madakasira, each were selected.

Collection of data

The research was structured to collect the data through interview schedule personally regarding socio-economic profile and constraints faced by intensive sheep farmers by the researcher by using structured, pre-tested questioner.

Statistical analysis

Data collected over the course of the study were carefully examined and structured into tables using statistical methods based on Snedecor and Cochran (1994).

Results and Discussion

Socio-economic profile of intensive sheep farmers

Age

Majority of the intensive sheep farmers (66.66%) in erstwhile districts of Rayalaseema region were middle aged (35-55 years) people followed by old (25%) and young aged (8.33%). This can be attributed to middle-aged individuals who are often the primary income earners and decision makers in their families, having achieved economic stability and who later pursue their passions. Similar results were found by Hossain *et al.* (2021) [4], Kumar *et al.* (2021) [12], Islam *et al.* (2022) [5] and Kanakaraja *et al.* (2024) [6].

Educational qualification

Among 24 selected intensive sheep farmers from erstwhile districts of Rayalaseema region, majority (95.84%) of them were literates and literates most of the intensive sheep farmers were graduates (29.16%) and had intermediate level of education (29.16%). This could be attributed to the fact that literacy enables them to handle the complex tasks involved in intensive sheep production, such as understanding advanced techniques, accessing relevant information and adhering to regulations. Similar pattern of findings were made by Hossain *et al.* (2021) [4], Khan *et al.* (2021) [11], Shashidhara *et al.* (2022) [14] and Kanakaraja *et al.* (2024) [6].

Social status

Majority of the intensive sheep farmers (62.5%) in erstwhile districts of Rayalaseema region were belonged to OC category followed by BC (33.33%) and SC (4.17%). This may be because individuals from the OC category often have better access to learning resources and financial stability, which enables them to invest in and adopt intensive system of sheep production. These results were contradictory to the outcomes of Singh *et al.* (2020) [15], Srinivasan *et al.* (2020) [16], Rawat *et al.* (2021) [12] and Shashidhara *et al.* (2022) [14].

Family type

Majority (87.5%) of the intensive sheep farmers primarily adopted the nuclear family type followed by joint families (12.5%). This may be due to that nuclear families may facilities easier decision-making, improved resource management and better adoption of modern farming practices required in intensive system of sheep production. Similar outcomes were reported by Srinivasan *et al.* (2020) [16] and Kanakaraja *et al.* (2024) [6].

Family size

Among intensive sheep farmers, small family size (87.5%) with 1-4 members were most prevalent, followed by large (8.33%) with > 7 members and medium (4.17%) with 5-7 members. This is likely because small sized families may facilitate improved resource management, simplify decision-making and reduce financial burden, thereby promoting more efficient sheep production. These results were in similar with the finding of Hossain *et al.* (2021) [4] and Kanakaraja *et al.* (2024) [6].

Land holding

In erstwhile districts of Rayalaseema region, majority of the intensive sheep farmers were large (75%) land holder followed by small (12.5%), landless (8.33%) and marginal (4.17%) land holders. This might be because large land holdings may enable intensive sheep farmers to enhance productivity by ensuring effective fodder provision and supporting sustainable intensive practices. These results were in line with the finding of Kanakaraja *et al.* (2024) [6].

Annual house hold income

Majority of the intensive sheep farmer (87.5%) had high annual household income followed by medium (8.33%) and low (4.17%). This may be attributed to the fact that intensive sheep farmers primarily focus on high productivity, invest in quality inputs and adopt improved production techniques, resulting in greater profitability. These results were in contrast with the results reported by Islam *et al.* (2022) [5] and Shashidhara *et al.* (2022) [14].

Extension-contact

Cent per cent of the intensive sheep farmers contacted VAS for extension services. This may be because, intensive sheep farmers believe that veterinarians provide specialized

expertise in animal health, disease prevention and welfare which are essential for maintaining high productivity in intensive sheep production system. Similar conclusions were drawn by Lioutas *et al.* (2010) [9].

Social participation

Majority (95.83%) of the intensive sheep farmers were not involved in any other organizations followed by holding position in one organization (4.17%). This might be due to factors such as a strong focus on individual farm management and limited availability for external activities. These results were inconsistent with Kanakaraja *et al.* (2024) [6].

Experience

Majority of the intensive sheep farmers (66.66%) had < 5 years of experience in intensive sheep production followed by 5-10 years (29.17%) and > 10 years (4.17%). This may be attributed to the fact that the intensive sheep production system is a relatively recent practice, gaining popularity only in recent years. As a result, sheep farmers are still in the process of learning its methods and understanding the potential profits it offers, leading to limited experience with this system. Comparable results were noted by Kanakaraja *et al.* (2024) [6].

Occupation

Majority of the intensive sheep farmers (62.5%) considered intensive sheep production as their subsidiary occupation followed by main occupation (37.5%). This may be attributed to their reliance on other primary income sources, such as agriculture and business, while viewing intensive sheep production as a supplementary activity to support their livelihood. These outcomes were contrary to Reddy *et al.* (2020) [13], Kanakaraja *et al.* (2022) [7] and Manzoor *et al.* (2022) [10].

Flock details

Cent per cent of the intensive sheep farmers maintained Nellore strains with majority of the flock size ranging from 101 to 150 (37.5%) and > 200 (37.5%). These results were not aligned with the outcomes of Gopu *et al.* (2020) [3], Khan *et al.* (2021) [11] and Kumar *et al.* (2021) [12].

Table 1: Socio-economic profile of intensive sheep farmers in erstwhile districts of Rayalaseema region

S. No.	Particulars		YSR Kadapa	Kurnool	Chittoor	Anantapur	Total (N=24)
			No of farmers (N=6)	No of farmers (N=6)	No of farmers (N=6)	No of farmers (N=6)	
1.	Age	Young age	0	0	2 (33.33)	0	2 (8.33)
		Middle age	3 (50.00)	5 (83.33)	4 (66.67)	4 (66.67)	16 (66.67)
		Old age	3 (50.00)	1 (16.67)	0	2 (33.33)	6 (25.00)
2.	Education	Illiterate	1 (16.67)	0	0	0	1 (4.16)
		Can read only	0	0	0	0	0
		Can read and write	0	0	0	0	0
		Primary level	1 (16.67)	2 (33.33)	1 (16.67)	0	4 (16.67)
		Secondary level	2 (33.33)	2 (33.33)	0	1 (16.66)	5 (20.83)
		Intermediate	2 (33.33)	1 (16.67)	3 (50.00)	1 (16.67)	7 (29.17)
		Graduate and above	0	1 (16.67)	2 (33.33)	4 (66.67)	7 (29.17)
3.	Social status	OC	3 (50.00)	5 (83.33)	4 (66.67)	3 (50.00)	15 (62.50)
		BC	2 (33.33)	1 (16.67)	2 (33.33)	3 (50.00)	8 (33.33)
		SC	1 (16.67)	0	0	0	1 (4.17)
		ST	0	0	0	0	0
4.	Family type	Joint type	1 (16.67)	1 (16.67)	1 (16.67)	0	3 (12.50)
		Nuclear type	5 (83.33)	5 (83.33)	5 (83.33)	6 (100.00)	21 (87.50)
5.	Family size	Small	5 (83.33)	5 (83.33)	5 (83.33)	6 (100.00)	21 (87.50)
		Medium	1 (16.67)	0	0	0	1 (4.17)
		Large	0	1 (16.67)	1 (16.67)	0	2 (8.33)
6.	Land holding	Landless	1 (16.66)	0	1 (16.66)	0	2 (8.33)
		Marginal	0	0	1 (16.67)	0	1 (4.17)
		Small	1 (16.67)	1 (16.67)	0	1 (16.67)	3 (12.50)
		Large	4 (66.67)	5 (83.33)	4 (66.67)	5 (83.33)	18 (75.00)
7.	Annual household income	Low	0	0	1 (16.67)	0	1 (4.17)
		Medium	2 (33.33)	0	0	0	2 (8.33)
		High	4 (66.67)	6 (100.00)	5 (83.33)	6 (100.00)	21 (87.50)
8.	Extension-contact	Gopala Mitra	0	0	0	0	0
		Paravet	0	0	0	0	0
		VAS	6 (100.00)	6 (100.00)	6 (100.00)	6 (100.00)	24 (100.00)
		Others	0	0	0	0	0
9.	Social participation	No involvement	6 (100.00)	6 (100.00)	5 (83.33)	6 (100.00)	23 (95.83)
		Holding position in organization	0	0	1 (16.67)	0	1 (4.17)
10.	Experience	< 5 years	2 (33.33)	2 (33.33)	6 (100.00)	6 (100.00)	16 (66.66)
		5 – 10 years	4 (66.67)	3 (50.00)	0	0	7 (29.17)
		>10 years	0	1 (16.67)	0	0	1 (4.17)
11.	Occupation (Sheep rearing)	Main	1 (16.67)	1 (16.67)	2 (33.33)	5 (83.33)	9 (37.50)
		Subsidiary	5 (83.33)	5 (83.33)	4 (66.67)	1 (16.67)	15 (62.50)

Note: Figures in parenthesis indicates the percentage of intensive sheep farmers

Constraints encountered by intensive sheep farmers

In erstwhile districts of Rayalaseema region, among 24 selected intensive sheep farmers, majority (62.5%) of the intensive sheep farmers reported involvement of large no. of middlemen as a major constraint and by using Garrett's ranking technique involvement of large no. of middle men got highest mean score (62.5) followed by scarcity of feed and fodder (45.83), poor marketing system (41.66), disease problem (29.16), unregulated market price (29.16), high cost of concentrate feed (20.83), high cost of farm labour (12.50), poor manage mental practices (8.33), lack of subsidy (4.16), timely non-availability of credit facilities for shepherds (4.16), inadequate finance to expand flock (4.16) were the other constraints faced by intensive sheep farmers. Similar results were observed by Thilakar *et al.* (2007) [17] where majority of the sheep farmers reported involvement of large number of middle men as a major constraint.

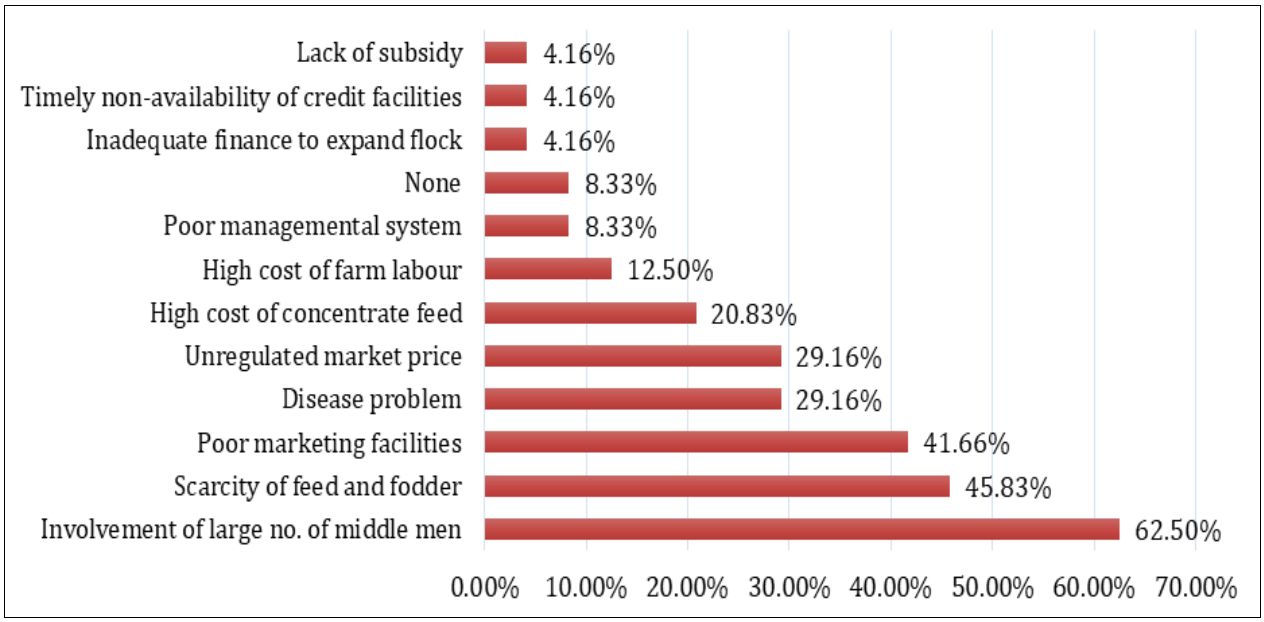

Fig 1: Graphical representation of constraints faced by intensive sheep farmers in erstwhile districts of Rayalaseema region

Table 2: Constraints perceived by the intensive sheep farmers in erstwhile districts of Rayalaseema region

S. No.	Particulars	YSR Kadapa	Kurnool	Chittoor	Anantapur	Garrett's mean score	Rank
		No of respondents, N=6	No of respondents, N=6	No of respondents, N=6	No of respondents, N=6		
1.	High cost of concentrate feed	0	0	4 (66.67)	1 (16.67)	5 (20.83)	V
2.	Scarcity of feed and fodder	4 (66.67)	2 (33.33)	2 (33.33)	3 (50.00)	11 (45.83)	II
3.	Lack of subsidy	0	1 (16.67)	0	0	1 (4.16)	VIII
4.	Timely non-availability of credit facilities for shepherds	0	1 (16.67)	0	0	1 (4.16)	VIII
5.	Inadequate finance to expand flock	0	1 (16.67)	0	0	1 (4.16)	VIII
6.	Disease problem	2 (33.33)	0	5 (83.33)	0	7 (29.16)	IV
7.	Poor managemental practices	0	1 (16.67)	1 (16.67)	0	2 (8.33)	VII
8.	Poor marketing system	2 (33.33)	2 (33.33)	1 (16.67)	5 (83.33)	10 (41.66)	III
9.	High cost of farm labour	1 (16.67)	1 (16.67)	1 (16.67)	0	3 (12.50)	VI
10.	Involvement of large no of middle men	5 (83.33)	3 (50.00)	1 (16.67)	6 (100.00)	15 (62.50)	I
11.	Unregulated market price	5 (83.33)	1 (16.67)	1 (16.67)	0	7 (29.16)	IV
12.	None	0	1 (16.67)	1 (16.67)	0	2(8.33)	VII

Note: Figures in parenthesis indicates percentages of intensive sheep farmers

Conclusion

Majority of the intensive sheep farmers in the erstwhile districts of Rayalaseema region belonged to OC category, but the SC, BC and ST communities have been unable to adopt this system of sheep rearing may be due to limited access to financial resources, technical knowledge and infrastructure. However, if the government provides targeted incentives such as subsidies, training programs and technological support, these communities will also be encouraged to take up intensive sheep production, fostering inclusive growth in the livestock sector. The government should also provide incentives for establishing small breeding units to enable small and marginal farmers to participate in intensive sheep production, thereby enhancing their income and promoting inclusive agricultural development. Just as grains are procured by the government, sheep may also be purchased and marketed through organized marketing channels to eliminate middlemen exploitation and ensure fair prices for farmers. The government should focus on providing incentives for feeding and fodder management to support farmers in reducing input costs and ensuring the sustainable growth of intensive sheep production. Since the Rayalaseema region is a low rainfall area, intensive sheep production is particularly suitable for these regions and by implementing all necessary measures, it can contribute to sustainable livestock farming, ensuring consistent productivity despite environmental challenges.

Conflict of Interest
Not available

Financial Support
Not available

Reference

1. Basic Animal Husbandry Statistics (BAHS). *Basic animal husbandry statistics: livestock census.* New Delhi: Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India; 2019.
2. Bhateshwar V, Rai DC, Datt M, Aparnna VP. Current status of sheep farming in India. J Livest Sci. 2022;13:1-6.
3. Gopu P, Murali N, Saravanan R, Annalvilli R. A study on migratory pattern and socio-economic status of Tiruchy Black sheep in Tamil Nadu. Indian J Vet Anim Sci Res. 2020;49(4):36-44.
4. Hossain MA, Sun MA, Islam T, Rahman MM, Rahman MW, Hashem MA. Socio-economic characteristics and present scenario of sheep farmers at Sherpur district in Bangladesh. SAARC J Agric. 2021;19(1):185-199.
5. Islam R, Rahman M, Deka CK. Socio-economic profile and management practice adopted by sheep farmers in Dhubri district of Assam. Indian J Vet Anim Sci Res. 2022;48(2):45-51.
6. Kanakaraja MG, Sagar M, Juniwal C, Afnan SN, Reddy EN, Kartik. Kenguri sheep farmers' socio-economic status under intensive rearing system in Yadgir, Karnataka. Biol Forum Int J. 2024;16(2):94-97.
7. Kanakaraja MG, Gouri MD, Patil VM, Biradar C, Prasad PSK, Basavarajaiah DM, Ram J. Socio-economic profile of Kenguri sheep under extensive rearing system in Yadgir district of Karnataka. Pharma Innov J. 2022;11:548-551.
8. Kumar RD, Sangameswaran R, Selvaraju M, Arunachalam K, Periyannan M, Gopi M. Management practices of sheep and goat farmers in Karur district of Tamil Nadu. Young (Agri J). 2021;30(1):5-26.
9. Lioutas ED, Tzimitra-Kalogianni I, Charatsari C. Small ruminant producers' training needs and factors discouraging participation in agricultural education and training programs. Livest Res Rural Dev. 2010;22(7):215-221.
10. Manzoor A, Khan HM, Nazir T, Ganai AM. Sheep rearing: socio-economics and health practices in South Kashmir of Jammu and Kashmir. Indian J Small Rumin. 2022;28(1):177-184.
11. Khan HR, Mughal LGA, Memon A, Arain MB, Memon MA. Appraisal of managemental practices for sheep and goat at district Shaheed Benazirabad. Univ Sindh J Anim Sci. 2021;5(4):24-35.
12. Rawat S, Kumar S. A study on socio-economic condition of sheep rearers of district Uttarkashi, Uttarakhand. Asian J Agric Ext Econ Sociol. 2021;39(9):122-128.
13. Reddy PP, Vinoo R, Muralidhar M, Venkatasesaiah C, Kumar KA, Sudhakar K. Socio-economic status, sheep husbandry practices and morphological patterns of Macherla sheep, a lesser-known sheep breed of Andhra Pradesh. J Anim Res. 2020;10(5):827-835.
14. Shashidhara KK, Reddy BS, Dixit AK, Chanappa, Goudappa SB. Traditional sheep management practices in north eastern dry zone of Karnataka, India. Scientist. 2022;1(3):5146-5156.
15. Singh V, Singh P, Singh M. Socio-economic status of farmers vis-à-vis role of human resources in sheep and goat management practices in southern Rajasthan. J Rural Agric Res. 2020;15(2):25-27.
16. Srinivasan G, Roopa K. Socio-economic status of sheep farmers in Western Ghat region of Virudhunagar district, Tamil Nadu, India. Int J Curr Microbiol Appl Sci. 2020;9(7):2437-2444.
17. Thilakar P, Krishnaraj R. Constraint analysis in sheep farming. Indian J Anim Res. 2007;41(2):134-137.

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