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An analysis of profile characteristics of sheep farmers towards applicability of sheep advisory system: A study in Andhra Pradesh state

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Abstract

The present study was conducted in twelve randomly selected villages of Srikakulam, Prakasam and Ananthapur districts of Andhra Pradesh state. Data was collected through structured interview schedule. A total sample size was constituted with 120 sheep farmers to analyse their socio-personal, economic profile and applicability of sheep advisory system. The study revealed that majority of sheep farmers were middle aged and illiterates and belong to backward caste category. Sheep farming was the main occupation, while dairy farming was taken up as subsidiary occupation. Most of the respondents had medium experience in sheep farming with small flock size (60 - 240) having low annual income (Rs.60,000 - 2,06,670). It was interesting to note that majority of sheep farmers possessed medium level of applicability of sheep advisory system, which represents their plan of future farming activities.

Keywords: Socio-personal, economic profile, applicability, sheep farmers

Introduction

Livestock plays a vital role in the economic development of the country. During 2015-16, 25.6 per cent of the agricultural GDP was contributed by this sector and contribution to national GDP was 4.11% (Annual report 2016-2017). India has approximately 190.90 million cattle, 108.7 million buffalo, 135.17 million goats, 65 million sheep, 10.29 millions pigs, 729.2 million poultry birds (19th Livestock census, 2012).

Sheep and goat contribute 40 per cent of the livestock population and form the backbone of rural livelihoods for resource poor families often providing them with much needed cash in arid and semi arid regions. The meat production of indigenous sheep in India is 237.6 MT and occupying first position among SAARC countries (FAO, 2013) [6]. In Andhra Pradesh total sheep population was 26.39 million, which constitute 40.57 per cent of Indian sheep population and ranks first in the country producing 198.82 MT of meat, out of total meat production of 441.14 MT in India (Ministry of Agriculture, Govt. of India, 2012-2013) [9]. In this state, most of the sheep production is in the hands of traditional shepherd community or economically weaker sections of the society under traditional extensive system of rearing which is influenced by agro-climatic conditions and rigors of nature (Rajanna *et al.* 2012) [12]. Keeping the importance of IT enabled information delivery system as well as shepherds' vulnerability towards latest information accessibility, the study has been conducted to assess the profile of farmers to find out their applicability of sheep advisory system.

Methodology

The present study was conducted in Srikakulam, Prakasam and Ananthapur districts of Andhra Pradesh. A total of 120 shepherds who were having at least 50 sheep were selected from 12 villages of six mandals of three districts through multistage sampling and interviewed through direct interview method. The data were collected by using a pre-structured interview schedule developed for the purpose in consultation with other experts. Following the tabulation and necessary sorting, statistical analysis viz., frequency and percentile were used to draw the inferences.

Results and Discussion

Socio-personal profile characteristics of sheep farmers

Personal characteristics of sheep farmers were studied in terms of age, gender, social status and education and the findings represented in Table 1.

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1. Age: Majority of sheep farmers belonged to middle age (55%) followed by old (25.83%) and young age (19.17%) groups. The average age of sheep farmers was found to be 43.59 years (Table 1). From the results it can be inferred that most of the young people from the study area might be choosing new vocations rather than occupations like sheep farming. Similar results were reported by Rajanna *et al.* (2012), Baluswamy (2004) and Mishra *et al.* (2004) [12, 5, 10]. In contrary to these findings, Thilakar and Krishnaraj (2010) [15] reported that nearly one-half (40.83%) were old age followed by young age group.

Keeping in view of the rising demand for quality meat and meat products, measures should be taken by extension agencies to encourage younger generation towards latest technologies in sheep farming activities for ensuring better yields.

2. Gender: It was found that majority of the sheep farmers (96.67%) were males followed by 3.33 per cent of female farmers. Sheep farming depends upon mostly extensive system of rearing like taking the flock to the open grazing areas far from the domestic human dwellings and seasonal

migration in search of pastures etc. Hence, the trend of most of the sheep farming by male might be observed in this study. Similar results were reported by Adams and ohene-Yankyera (2015) and Rajanna *et al.* (2011) [2, 11].

3. Social status: The findings indicated that majority (78.33%) of the sheep farmers belonged to Backward Caste (BC) followed by Scheduled Tribe (ST) (10.00%) and Open Category (OC) (07.50%) and only 04.17 per cent of farmers represented Schedule Caste (SC) category. In the study area, sheep farming is being carried out as a traditional caste occupation i.e. by backward community like *Golla* (Yadavas). Similar results were observed by Rajanna *et al.* (2012) [12] and Kandasamy *et al.* (2006) [7].

4. Education: Majority of the (68.33%) sheep farmers were illiterates. About 7.5 per cent and 5.83 per cent of farmers had education upto intermediate level and middle school education followed by 5 per cent farmers with high school education. These findings are in accordance with Adams and ohene-Yankyera (2015) [2], Rajanna *et al.* (2012) [12] and Suresh *et al.* (2008) [14].

Table 1: Personal profile characteristics of sheep farmers (n=120)

S. No	Parameter	Frequency	Percentage
1.	Age		
	Young (<35 years)	23	19.17
	Middle (35-50 years)	66	55
	Old (>50 years)	31	25.83
1.	Gender		
	Male	116	96.67
	Female	04	03.33
2.	Social status		
	Open category (OC)	09	07.50
	Backward Caste (BC)	94	78.33
3.	Scheduled Caste (SC)	05	04.17
	Scheduled Tribe (ST)	12	10.00
4.	Education		
	Illiterates	82	68.33
	Can read only	05	04.17
	Can read & write	05	04.17
	Primary School	04	03.33
	Middle School	07	05.83
	High School	06	05.00
	Intermediate	09	07.50
	Graduation & above	02	01.67

Socio-economic profile characteristics of sheep farmers

Socio-economic profile of sheep farmers were studied in terms of occupation, flock size, experience in sheep farming and income level and the findings represented in Table 2.

1. Occupation: All the respondents were sheep farmers and hence their main occupation was sheep farming. These findings are in consonance with the findings of Thilakar and Krishnaraj (2010) [15], Kuldeeporwal *et al.* (2006) [8] and Thiruvankadan *et al.* (2004) [16]. Among these sheep farmers, nearly half of the respondents depending on sheep farming only, without any other subsidiary occupations. Among the subsidiary occupations possessed by the respondents, about 40.83 per cent and 08.33 per cent had dairy farming and agriculture as subsidiary occupations, respectively. Very few (05.00%) sheep farmers working as agriculture labours.

2. Flock size: It was observed that majority (87.50%) of the sheep farmers had small flock size followed by 9.17 and 3.33

per cent of sheep farmers with medium and large flock sizes, respectively. Bigger flock sizes need extra labour which was available at higher cost only. Hence, majority of sheep farmers in the study area might be maintaining sheep flock that can be manageable by his family only. Deficiency of fodder resources might also one reason for maintaining smaller flock sizes.

3. Experience in sheep farming: The study indicated that majority (59.17%) of the sheep farmers possessed medium experience in sheep farming, followed by (20.83%) and (20%) sheep farmers with low and high farming experience categories, respectively. The average experience of the sheep farmers was found to be 22.5 years. The sheep farmers might be continuing sheep farming as they have experienced it as a remunerative livelihood, and hence medium level of experience in sheep farming is observed. These findings are in accordance with Rajanna *et al.* (2012) [12] and Anandarao (2010) [3]

4. Income: The outcome of the study was that majority of sheep farmers (81.11%) had less annual income, whereas, 13.89 per cent and 5 per cent of sheep farmers belonged to medium and high annual income groups, respectively. The annual income of the sheep farmers in the study area ranged between Rs 60,000 to Rs 5,00,000 and the average annual income was Rs1,46,000. Rathod *et al.* (2014) [13] also found in

his study that the average annual income was Rs 1,00,063. The low income level might be due to holding of small flock size, and might be for continuing the farming as a traditional occupation without following improved management practices. The lower literacy levels might also be contributing towards less income levels.

Table 2: Socio-economic profile characteristics of sheep farmers (n=120)

S. No	Parameter	Frequency	Percentage	Mean	Standard deviation
1.	Occupation				
	Main (Sheep farming)	120	100		
	Subsidiary				
	Dairy farming	49	40.83		
2.	Agriculture	06	05.00		
	Agriculture labour	10	08.33		
	Only sheep farming	55	45.84		
3.	Flock size				
	Small (60-240)	105	87.50		
	Medium(241-420)	11	09.17		
	Large (421-600)	04	03.33		
	Experience in sheep farming			22.5	10.9
4.	Low (< 12 years)				
	Medium (12-34 years)	25	20.83		
	High (> 34 years)	71	59.17		
	Income	24	20.00		
	Low				
	(60000-206670)	103	85.33		
	Medium				
	(206671-353340)	13	10.84		
	High				
	(353341-500000)	04	03.33		

Distribution of respondents according to their applicability of sheep advisory system

It was noticed from the Table 3 that majority of sheep farmers (57.50%) had medium level of applicability of sheep advisory system, whereas, 27.5 per cent and 10 per cent of sheep farmers belonged to high and low levels of applicability of sheep advisory system, respectively. The above trend indicated that computer based interactive advisory system will be the most convenient, cheapest and effective future mode of information dissemination.

Table 3: Distribution of respondents according to their applicability of sheep advisory system n= 120

S. No	Category	Frequency	Percentage
1	Low	12	10.00
2	Medium	69	57.50
3	High	33	27.50

Mean = 72.9 SD = 8.308

Conclusion

The study conducted in Srikakulam, Prakasam and Ananthapur districts of Andhra Pradesh, India revealed that majority of sheep farmers belonged to middle age group. Hence, this group of shepherds should be imparted training so that they can act as catalysts in motivating other shepherds through interpersonal networks. The literacy rate has to be improved for early adoption of improved management practices by government and the voluntary organization functioning in the area. Traditional sheep rearers can be targeted towards adoption of recommended scientific health care practices through intensive extension education efforts.

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