Socio-economic Analysis of Local Goat Farmers of Northern Hills of Chhattisgarh

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ABSTRACT

An investigation was undertaken to assess the socio-economic status of the 140 goat farmers of the three districts namely Surguja, Surajpur and Balrampur districts of the Northern hills of Chhattisgarh. The present investigation revealed that goat farmers were mainly from the male domain (58.57%) whereas, only (41.42%) were female and (62.85%) majority of the goat farmers belong to the middle age group followed by the old (20.00%) and young (17.15%) age groups. About 97.14% of the household head were married and of the goat farmers had a joint family. Nearly, 60.71% of goat farmers possess medium-sized families (5-8 members), followed by 21.43% having large families and 17.86 % having small families. More than half of the goat farmers belong to the Schedule Tribe category, followed by Other Backward Class, Schedule Caste and General category. The frock size ranged from 5 to 37 numbers. Goat farming was mainly dominated by small and marginal farmers. Agriculture is the primary occupation in the studied area. The majority of the goat farmers were illiterate and that goat farmers of the Northern hills of Chhattisgarh were not received any type of training, loan, and benefits from the government scheme regarding goat farming.

HIGHLIGHTS

◎ Investigation focused on the analysis of the socio-economic status of local goat farmers of the northern hills of Chhattisgarh.
◎ Evidence has shown that the majority of goat farmers belonged to small and marginal categories.

The goat is one of the smallest domesticated ruminants, contributing to the production of milk after cattle and buffaloes and can survive on shrubs, trees, and desert scrubs and even thrive under minimum housing inputs. Among all the species of farm animals, goats are widely distributed in all agroecological zones of India. Indian goats contribute noticeably to the national economy and play a noteworthy role in the nutritional security of rural livelihood by providing valuable sources of animal protein like meat and milk (Bhakt *et al*., 2015). The initial capital investment is relatively low, the land requirement is small and reproductive rates are higher due to shorter breeding intervals and high prolificacy. Goat farming suits the small, marginal and large farmers equally well since it provides continuous income throughout the year even in the face of the natural vagaries of drought (Mallikarjuna *et al.,* 2021). Animal husbandry is an important activity in the rural areas of the Chhattisgarh state and goat is one of the major livestock species contributing to the livestock security of farmers of Chhattisgarh. This local strain of

goat is reared by farmers in small-size flocks mainly for meat. The farmers are commonly rearing goats under a traditional system using low or no-cost inputs. Local goat found in the northern hills of Chhattisgarh is hardy and well adapted under adverse climatic conditions and has many desirable characteristics of meat breed. These goats are reared mainly for meat purposes. Moreover, local breeds are also part of our cultural heritage and many have a socio-economic value, as they are necessary for the livelihood of rural masses in harsh areas (Gandini and Villa 2003). The socio-economic value of goat keeping compared to other livestock species has been immense for poor farming communities in the developing countries, due to its higher output compared to low input, limited shelter requirement, high fecundity, easy marketing and unprejudiced social acceptance of their products. Very scanty information is available regarding socio-economic aspect of goat farmers under field condition in Northern Hills of Chhattisgarh and management practices followed by the farmers to rear these animals. Keeping these facts in view, an attempt has been made to investigate the socio-economic profile of goat keepers of Surguja, Surajpur and Balrampur districts of Northern Hills of Chhattisgarh.

MATERIALS AND METHODS

The present investigation was undertaken in the Northern Hills of Chhattisgarh during 2022. Northern Hills of Chhattisgarh comprises 5 districts, out of 5 districts three districts namely Surajpur, Sarguja and Balrampur were selected for the present investigation. Three blocks were selected from each district and 5 to 6 villages were chosen randomly from each block. A total of 50 villages and 140 respondents who own goats and had long enough experience in rearing goats were identified to investigate socio-economic aspects of goat farmers in the native tract. A predesigned interview questionnaire was used for the collection of required data to full fill the objective of present investigation. Personal interviews with traditional goat keepers were conducted for collection of data. The collected data were compiled, tabulated and analysed to interpret the results. Descriptive statistics like frequency and percentage were used for the interpretation of data.

RESULTS AND DISCUSSION

The data regarding the distribution of goat farmers according to the Socio-personal details and goat-rearing practices of the current investigation is furnished in table 1.

Gender of goat farmers

Present investigation revealed that goat farmers were mainly from the male domain (58.57%) whereas, only (41.42%) were female. These findings are in comparison with the study of Rawat *et al.* (2016), who stated that 62% of goat farmers in the north Goa were men, while 38% were women. Dhaliwal *et al.* (2022), also reported that 100% of goat farmers in Punjab were men and contrast findings displayed by Tudu *et al.* (2015), Bashir and Venkatachalapathy (2017) and Gamit *et al.* (2020) who stated that most of the goat farmers in their study were women.

Age

Data related to the age of goat farmers are present in table 1. It could be concluded from the table that (62.85%) majority of the goat farmers belong to the middle age group followed by the old (20.00%) and young (17.15%) age groups. The middle and old aged goat farmers are traditional farmers staying in the villages and performing goat farming with agricultural activity as a source of alternate source of income for the livelihood, whereas, involvement of the young age group is very less maybe they choose an alternative occupation for their livelihood. These findings are associated with Sabapara (2016), Ready *et al.* (2017), Vimal and Venkatachalapathy (2017), Yusouff *et al.* (2018), Bhikya *et al.* (2021) and Mallikarjuna *et al.* (2021). It shows that the traditional gat farming is losing popularity against new generation.

Marital status

Among 140 respondents, 97.14% of the household head were married and 2.85% were unmarried. This finding is in line with the study of Rawat *et al.* (2015) who stated 91.00% of goat farmer of Mahoba district of Bundelkhand were married while 9.00% were unmarried.

Family type

Among 140 respondents 73.57% of the goat farmers had a joint family and the remaining 26.43% of the farmers

Table 1: Distribution of goat farmers (N-140) according to Socio-personal details and goat-rearing practices

Sl. No.	Variable	Category	Frequency	Percentage
1	Gender	Male	82	58.57
		Female	58	41.43
2	Age	Up to 35 years	24	17.15
		35 – 55 years	88	62.85
		Above 55 years	28	20.00
3	Marital status	Married	136	97.14
		Unmarried	4	2.86
4	Family type	Nuclear	37	26.43
		Joint	103	73.57
5	Family size	Small (Up to 4)	25	17.86
		Medium (5-8)	85	60.71
		Large > (8)	30	21.43
6	Caste composition	ST	76	54.28
		SC	26	18.57
		OBC	31	22.14
		General	7	5.00
7	Education	Illiterate	88	62.86
		Primary	30	21.43
		Middle School	12	8.75
		High School	6	4.29
		Higher Secondary	4	2.86
		College	0	0
8	Experience of goat farming	Up to 10 years	24	17.14
		11-20 years	70	50.00
		21-30 years	35	25.00
		>31 years	11	7.86
9	Flock size	Small (1-10)	40	28.57
		Medium (11-20)	76	54.28
		Large (above 21)	24	17.14
10	Primary occupation	Agricultural	108	77.14
		Goat farming	18	12.85
		Others	14	10.00
11	Landholding	Marginal farmer (<1 hac.)	25	17.86
		Small farmer (1-2 hac)	94	67.14
		Medium farmer (2-4 hac)	16	11.43
		Large farmer (<4 hac)	5	3.57

had a nuclear family. This finding was in agreement with the finding of Dhaliwal *et al*. (2022) who stated that 63% of both farmers of Punjab had joint family, while 36.67% of respondents had nuclear family. However, observation by Ready *et al*. (2017) and Singh *et al*. (2021) were contradictory and they reported that majority of the goat farmers had a nuclear family.

Family size

From the surveyed data it would be concluded that 60.71% of goat farmers possess medium sized families (5-8 members), followed by 21.43% had large families and 17.86% small families. The present finding is in line with Sabapara (2016), Bashir and Venkatachalapathy

(2017) and Bhikya *et al.* (2021) whereas, contradictory to the findings of Dhara *et al.* (2016) and Ready *et al.* (2017) who revealed that majority of their respondents possess small family size.

Caste composition

In terms of caste composition more than half i.e., 54.28% of the goat farmers belong to the Schedule Tribe category, followed by 22.14% Other Backward Class, 18.57% from the Schedule Caste category and the remaining 5% belongs to the General category. This might be because a weaker section of the study area may choose goat rearing alternately for their income source. The present finding was completely altered from the observation of Ready *et al.* (2017) who concluded that 60% of goat farmers in the North Goa district belong to the general category. Singh *et al*. (2018) and Bhikya *et al*. (2021) also reported that the majority of goat farmers belong to the backward class which might be due to regional variation.

Education

The table 1 reveals the education standard of goat farmers of the Northern Hills of Chhattisgarh. In present investigation it was observed that the majority of the goat farmers (62.86%) were illiterate whereas, (21.43%), (8.75%) and 2.86% were found to be educated up to primary, middle, high school and higher secondary respectively and not a single respondents educated up to graduate level. This finding might be due to the majority of the goat farmers belonging to the middle and old age groups. This might be due to, goat farmers of the northern hills of Chhattisgarh having fewer opportunities to get a school education and employment in another sector. These findings show a close association with the finding of Dhara *et al*. (2016), Bashir and Venkatachalapathy (2017), Bhikya *et al.* (2021) and Mallikarjuna *et al*. (2021) who stated that the majority of the goat keepers were illiterate and had minimum school education but this finding is contradictory to the conclusion of Reddy *et al*. (2017) and Gamit *et al*. (2020) who revealed that only 8% and 44.17% were illiterate respectively.

Experience in goat farming

Out of the 140 goat farmers/respondent interviewed in

the present investigation majority (50.00%) of the goat farmers were having experience in goat rearing for 11 - 20 years whereas, 25.00%, 17.14% and 7.86% of respondents had 11 to 30 years, 21 to 30 years, up to 10 years and more than 31 years of goat farming experience. The average experience of the goat farmers was more than 10 years. These findings are not in agreement with Singh *et al.* (2018) and Singh *et al.* (2021) who reported that the experience of the respondents was 5.09 years. However, Mallikarjun *et al*. (2021) also reported the average experience of the goat farmers of Pondicherry was 12.07 years which is much close to the present findings.

Flock Size

The data related to the flock size of goats revealed that 54.28% of goat farmers had medium-sized flocks followed by 28.57% had small flock sizes and 17.14% of respondents had large flock sizes. The flock size of the goat farmers ranged from 5 to 37 numbers. The results are in agreement with Bhikya *et al*. (2021) and Mallikarjuna *et al*. (2021) where they concluded that 73.33% and 43.70% respectively of the goat farmer had medium flock size but some findings like Sabapara *et al*. (2016), Bashir and Venkatachalapathy (2017) and Bhikya *et al*. (2021) completely alter from present finding and concluded that majority of the goat farmers had small frock size.

Primary occupation

Table 2 clearly indicates agriculture activity is the primary occupation of 77.14% of goat farmers, 12.85% of respondents practice goat farming as a primary source of income and the remaining 10% practice other (job, business, shop keeping, etc.) as the primary source of livelihood. These findings are contradictory to the findings of Reddy *et al*. (2017) and Gamit *et al*. (2020) and Mallikarjuna *et al*. (2021) who stated that livestock farming was the primary occupation for livelihood in their investigation.

Landholding

The data regarding land holding by the goat farmer observed that most (67.14%) of the respondents were small (17.86%) farmers, followed by marginal farmers, medium farmers (11.43%) and very little (3.57%) were large

farmers. This observation indicates small and marginal farmers attached to goat farming for the additional income and due to small size, ease of maintenance, no specific housing and other management requirement and zero input maximum output system goat farming is the best option for additional income for livelihood. These results are in agreement with Ready *et al*. (2017) and Mallikarjuna *et al*. (2021) stated that the majority of the goat farmers are landless.

Table 2: Distribution of goat farming according to Government support

Sl. No.	Variable	Category	Frequency	Percentage
1	Training	Yes	0	0
		No	140	100
2	Loan	Yes	0	0
		No	140	100
3	Benefit of Government Scheme	Yes	0	0
		No	140	100
4	Sold to	Butchers	110	78
		Own use	30	22
5	Selling price of goats	>6000	79	56.50
		<6000	51	34.50

Support under government sponsored scheme

After observation of data from table 2 it could be clearly concluded that goat farmers of the Northern hills of Chhattisgarh have not received any type of training, loan, and benefits under government sponsored scheme regarding goat farming. This might be due to most of the farmers being illiterate or minimum educated and traditional farmers. These can be addressed by an increase in extension activity and training programs among the goat farmers. Strengthening of extension services, training to use scientific management practices and health aspects also demanded by the farmers of Bihar for better and scientific goat farming Kumar *et al.* (2017) whereas, Kholi *et al.* (2016) reported a contrast to the present finding that minority of the goat farmers possess the medium level of scientific knowledge or orientation.

Marketing

In the present investigation, 78% of goat farmers inthe studied area used to sell their goats to butchers and 22% of goat farmers rear goats for their own use in functions or festivals at their home or their relatives. This practice of buying goats by the butchers is common in the studied area, because the butchers come to the door step of the goat rearers to buy goats, fix a reasonable price and give it to the goat farmers in cash. In this way the farmers get the value of their goats immediately and at home. The price/value of goats is evaluated on the basis of body weight and physical appearance of the goat.

Selling price of goats

Most of the goat keepers (56.50) % sold their goats at less than 6000 rupees/goat whereas 34.50% of goat farmers sold at more than ₹ 6000. In general female goat price is less than males. The price of male goats ranges from ₹ 5000-10000 and females ranges from ₹ 2000-5000.

CONCLUSION

From the resent investigation it can be concluded that thought majority of goat farmers are men but women are also involved in considerable proportion. Therefore, the promotion of the activity provides good opportunity for women empowerment. Goat farming is mostly done by tribal, small and marginal farmers. But they are mostly illiterate, or having minimal education. They have not been provided training and support under government sponsored schemes in the studied area till the investigation was carried out. This may be the reason why the popularity of goat farming decreasing specially among young generation. Therefore, there is an urgent need of extension in the studied area.

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