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Socio Economic Status of the Goat Farmers in Fringe Villages of Western Ghat in Virudhunagar District, Tamil Nadu

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ABSTRACT

Background: Goat farming is highly viable and Virudhunagar district of Tamil Nadu has 10 blocks out of which three blocks are situated in the foot hills of Western Ghat. There are no data available regarding Socio economic status of Goat farmers residing in foothill region of western ghat. Hence, this study was aimed to study the Socio economic status of Goat farmers in fringe villages of Western Ghat in Virudhunagar district, Tamil Nadu.

Methods: Three blocks are situated in the foot hills of Western Ghat. In each block, three fringe villages near to the Western Ghat were selected randomly. In each village, 30 goat farmers were selected randomly, a total of 270 farmers were selected randomly and data were collected by personal interview through pre tested questionnaire.

Result: Most of the goat farmers were between 35 to 50 years of age, owned house, lived as nucleus family, 86% of them were landless. Most of them were illiterate and not exposed to training centre. Hence, it is suggested that government or any other agency take necessary steps to expose them to scientific farming which will improve their socio economic status.

Key words: Fringe village, Goat farmers, Socio economic status, Western ghat.

INTRODUCTION

Goat farming plays a major role in improving the economic status and house hold nutrition of the goat farmers (Panin and Mahabile, 1997). Shortage of common grazing land and financial constraints, are the reason why small landless farmers and medium farmers are not able to rear large ruminants and they prefer small ruminants which give considerable income to them through meat and milk. Goat population in India has drastically increased in the last few decades due to its profitability, high demand for goat meat, easy to manage by women, high price for meat etc. Global goat population increased over one billion head which is 34% increase than 2000 (Miller and Lu, 2019). Goat farming is highly viable and economical compared to other farming systems. Virudhunagar district of Tamil Nadu lies between 900 20' and 900 72' of north latitude and 770 20' and 780 70' of east longitude. The district comprises of 10 blocks out of which Watrap, Rajapalayam and Srivilliputhur blocks are situated in the foot hills of Western Ghat. Total area of Virudhunagar district is 4241sq. Kilomter out of this 89% is rural area. The average literacy of the district is 72%. The foothills have rich loamy soil with good vegetative cover mostly suitable for animal husbandry activities especially goat farming. Chandra *et al*. (2005) revealed that education, family education status and exposure to communication source are vital for adoption of improved practices in goat farming in achieving desired production performance. Considering the above facts, this study was conducted to study the socio economic status of the goat farmers residing in fringe villages of Western Ghat of Virudhunagar district.

MATERIALS AND METHODS

This study was carried by Tamil Nadu Veterinary and Animal Sciences University during the year 2019. It was conducted at three blocks of Virudhunagar district situated in foothills of Western ghat. In each block, three fringe villages near to the Western ghat were selected randomly. In each village, 30 goat farmers were selected. A total of 270 farmers were randomly selected to study the socio economic status of the goat farmers. Data were collected by personal interview through pre tested questionnaire. The base line information about age, education status, family members, community, religion, land for fodder cultivation, number of goats owned, de worming details, training attended, need of training and veterinary care facility available were collected. The data collected were tabulated and statistical parameters like percentage was used for logical conclusion.

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RESULTS AND DISCUSSION

Age and education status of head of the family

It is observed from Table 1 that major goat farmers in the Watrap, Rajapalayam and Srivilliputhur blocks belonged to

age group between 35 to 50 years. Overall 52.23% of farmers were belonging to 35-50 years age group followed by 34.81%, 11.48% and 1.48% of farmers more than 50 years age group, 25 to 35 years and 18-25 years age group respectively. These findings agreed with Tanwar *et al*. (2008) who reported that majority of goat farmers belonged to 31-50 years of age in tribal area of Udaipur district of Rajasthan and 13.14% farmers were belonging to less than 30 years of age. It showed that younger generation show less interest in goat farming.

Educational status of head of family

Educational status of head of the family is important criteria for the socio economic status of the family. Based on the education they were grouped in to illiterate, primary school, middle school, high school, higher secondary and graduate (Table 1). Percentage of illiterate goat farmers in Watrap, Rajapalayam and Srivilliputhur block 64.44%, 84.44% and 64.44% respectively. Primary school education was completed by 15.56% farmers in Watrap block followed by 10% in Srivilliputhur and 5.56% in Rajapalayam block. Middle school education was completed by 10 % of farmers in Srivilliputhur block followed by 5.56% in Rajapalayam block and 4.44% in Watrap block. Only in Srivilliputhur block 10% goat farmers completed high school education. However, higher secondary education was completed by 10%, 4.44% and 0% and graduate education was completed by 5.56%, 0% and 5.56% of goat farmers of Watrap, Rajapalayam and Srivilliputhur block respectively. In over all study area 71.11% of goat farmers were illiterate and 28.89% were educated in any one of education, but 10.37% goat farmers were educated up to primary school education only. Fringe villages of Western Ghat region had poor accessibility to high school education may be one of the reason. The findings supported by Rajanna *et al*. (2012) reported that higher percent (74.65) of illiterates among the sheep farmers in Telungana region of Andra Pradesh. In contrast to the findings, Baruwa (2013) reported that 81.6% of the goat farmers were educated in Nigeria. Nipane *et al*. (2016) also reported that 81.14% goat farmers of Bhandara district of Maharastra state were educated.

Family members

Most of the Goat farmers in Watrap, Rajapalayam and Srivilliputhur block belonged to nucleus family 84.44%, 80% and 85.56% respectively. Overall in study area 83.33% goat farmers belonged to nucleus family and 16.67% of goat farmers belonged to joint family (Table 1). It indicates that the joint family system is slowly declining even in villages. Results of this finding agreed with Sathyanarayanan *et al*. (2010) who reported that majority 63.08% of livestock farmers lived in nucleus family and 36.92% belonged to joint family. Similar results were observed by Kavitha and Reddy, (2007).

Community, religion and marital status

In Watrap block 65.56% goat farmers belonged to Other Backward community (OBC) and 34.44% belonged to scheduled caste community (Table 1) Other Backward community in Rajapalayam and Srivilliputhur blocks were 25.56 and 80% respectively. Goat farmers belonging to Scheduled caste community was higher in Rajapalayam block (74.44%) followed by 20% in Srivilliputhur block. Overall it was observed that 57.04% goat farmers in the study area belonged to OBC and 42.96% belonged to scheduled caste. However, the results of this findings disagreed with findings of Nandi Debraj *et al.* (2011) reported that Goat farming was much popular among scheduled caste (44.97%) followed by General caste (OC) 26.30%. Only 4.42% of goat farmers belong to other backward community (OBC) in west Bengal rearing Black Bengal goat.

In Watrap and Srivilliputhur blocks most of the Goat farmers belonged to Hindu religion (Table 1). In Rajapalayam block 14.44% goat farmers belonged to Christian religion and 85.56% goat farmers was hindu religion. In overall study area, 95.19% and 4.81% goat farmers were hindu and Christian religion respectively.

Married persons involved in Goat farming were 96.56%, 100% and 80% and unmarried persons were 4.44%, 0% and 20 % in Watrap, Rajapalayam and Srivilliputhur block respectively. Overall 91.85 goat farmers were married and 4.81% were unmarried.

Income from other sources

In Watrap block 10% goat farmers were involved in other work to earn additional income along with goat farming. It was around 25.56% and 5.56% of goat farmers in Rajapalayam and Watrap block respectively. In overall study area 13.71% goat farmers involved in other work to earn additional income (Table 1). It indicates that the income from goat farming was not sufficient for them.

House and land holding status

In Watrap 64.44% of goat farmers had own house and 35.56% were living in rented house. In Rajapalayam and Srivilliputhur block comparable percentage (84.44) of goat farmers had own house (Table 2) and few farmers were living in rented house (15.56%). Overall three fourth of goat farmers had own house and one fourth were living in rented house. It showed that average income of the farmers did not influence the housing status. This finding was supported by Raghavan and Raja, (2012) stated that majority of goat farmers had own tiled house with concrete flooring and very few farmers lived in thatched roof house in Malabar region of Kerala.

Land holding

Table 2 showed that most of the goat farmers in Watrap, Rajapalayam and Srivilliputhur block were landless (86.67%) followed by comparable percentage of small farmers (11.48). Medium farmers (5.56%) were present only in Watrap block. Mohan *et al.* (2012) also reported that 51.90 % of the goat farmers were landless followed by marginal farmers (35.45%), small (10.12%) and medium large (2.53%) in semi arid zone of Uttar Pradesh. This finding was also supported by Sastry *et al.* (1992).

Table 1: Personal and Social status of the goat farmers (%).

Personal and social status	Watrap	Rajapalayam	Srivilliputhur	Overall (F)
Age				
18-25	0	0.00	4.44	1.48
25-35	4.44	0.00	30.00	11.48
35-50	65.56	45.56	45.56	52.23
More than 50	30.00	54.44	20.00	34.81
Family members				
Nucleus family	84.44	80.00	85.56	83.33
Joint family	15.56	20.00	14.44	16.67
Education				
Illiterate	64.44	84.44	64.44	71.11
Primary school	15.56	5.56	10.00	10.37
Middle school	4.44	5.56	10.00	6.67
High school	0.00	0.00	10.00	3.33
Higher secondary	10.00	4.44	0.00	4.81
Graduate	5.56	0.00	5.56	3.71
Community				
OC	0.00	0.00	0.00	0.00
OBC	65.56	25.56	80.00	57.04
SC	34.44	74.44	20.00	42.96
Religion				
Hindu	100.00	85.56	100.00	95.19
Christian	0.00	14.44	0.00	4.81
Marital Status				
Married	95.56	100.00	80.00	91.85
Un married	4.44	0.00	20.00	8.15
Engaged in other business				
Yes	10.00	25.56	5.56	13.71
No	90.00	74.44	94.44	86.29

Table 2: Land holding and house status (%).

Land and house status	Watrap	Rajapalayam	Srivilliputhur	Overall (F)
Land holding				
No land	84.44	90.00	85.56	86.67
Small farmer	10.00	10.00	14.44	11.48
Medium farmer	5.56	0.00	0.00	1.85
Large farmer	0.00	0.00	0.00	0.00
House status				
Own house	64.44	84.44	84.44	77.77
Rented house	35.56	15.56	15.56	22.23

Number of goats owned

It could be observed from Table 3 that majority of goat farmers in all three blocks owned 10-30 goats, overall it was 58.52% followed by less than 10 goats (28.52%), more than 50 goats (8.15%) and 30-50 goats (4.81%) owned by farmers. However, in Srivilliputhur block maximum flock size was 10-30 and 64.44% farmers owned that flock.

Housing for goats

Table 3 showed that 80%, 85.56% and 75.56% goat farmers provided housing for goats at ground level in Watrap, Rajapalayam and Srivilliputhur block respectively. Overall, 80.37% goat farmers provided housing and 19.63% of goat farmers reared goats in open housing system. No one in the study area provided elevated housing.

Veterinary care dependency

Data on veterinary care dependency is given in table 3. In Watrap block 70% goat farmers depended on government dispensary for their animal health care. However, 24.44% of goat farmers were giving own treatment for their goats and only in this block 5.56% farmers depended on private veterinary practitioner. Dependency on government dispensary and own treatment was comparable in Rajapalayam and Srivilliputhur block (65.56% and 34.44%) respectively. Overall 67.04% goat farmers depended on

government dispensary, 31.11% depended on own treatment and 1.85% depended on private veterinary practitioner.

Number of deworming

Table 3 shows data on number of deworming done per year for their goats. In Watrap block 14.44% goat farmers carried out three times and 85.56% carried out two times deworming per year for their goats. In Rajapalayam and Srivilliputhur block 10%, 14.44% and 90% and 85.56% farmers carried out one time deworming and two times deworming per year respectively. Overall 87.04% goat farmers carried out deworming two times per year.

Fodder cultivation and grazing time

Data on fodder cultivation is given in Table 4. No land available for fodder cultivation among 84.44%, 90% and 85.67% goat farmers in Watrap, Rajapalayam and Srivilliputhur block. 10% and 5.56% goat farmers in Watrap block cultivated fodder in 25 cents and more than 50 cents of land. In Rajapalayam block only 5.56% goat farmers cultivated green fodder in more than 50 cents and 4.44% goat farmers in 25-50 cents of land.

Grazing time

Grazing time per day is shown in Table 4. Majority of the goat farmers (80.37%) in the study area allowed their goats for more than 6 hrs per day and this time was comparable in all three blocks. Only 19.63% of goat farmers allowed less than 6 hours grazing per day.

Members engaged in goat farming

The percentage of family members engaged in goat farming is shown in Table 4. Percentage of only one member of the family involved in goat farming was 75.56 in Watrap block, 64.44 and 71.85 in Rajapalayam and Srivilliputhur respectively. Two to three members of the family engaged in goat farming was high in Rajapalayam block (30%) followed by Watrap and Srivilliputhur block. Only in Rajapalayam block more than 3 members of family engaged in goat farming (5.56%). Over all in the study area single

Table 3: Number of Goat owned, housing, veterinary health care and de worming numbers (%).

Characters	Watrap	Rajapalayam	Srivilliputhur	Overall (F)
Goats				
Less than 10	30.00	20.00	35.56	28.52
10-30	55.56	55.56	64.44	58.52
30-50	4.44	10.00	0.00	4.81
More than 50	10.00	14.44	0.00	8.15
Housing for goats				
Open housing	20.00	14.44	24.44	19.63
Ground level	80.00	85.56	75.56	80.37
Elevated	0.00	0.00	0.00	0.00
Veterinary care dependency				
Own treatment	24.44	34.44	34.44	31.11
Government dispensary	70.00	65.56	65.56	67.04
Private practitioner	5.56	0.00	0.00	1.85
Number of deworming				
One time	0.00	10.00	14.44	8.15
Two times	85.56	90.00	85.56	87.04
Three times	14.44	0.00	0.00	4.81

Table 4: Fodder cultivation, grazing and family members engaged (%).

Characters	Watrap	Rajapalayam	Srivilliputhur	Overall (F)
Fodder cultivation				
No land	84.44	90.00	85.56	86.67
Up to 25 cents	10.00	0.00	14.44	8.15
25 to 50 cents	0.00	4.44	0.00	1.48
More than 50 cents	5.56	5.56	0.00	3.71
Grazing				
Less than 6 hours/day	20.00	24.44	14.44	19.63
More than 6 hours/day	80.00	75.56	85.56	80.37
Family members engaged in goat farming				Single
75.56	64.44	75.56	71.85	
2-3 members	24.44	30.00	24.44	26.29
More than 3 members	0.00	5.56	0.00	1.85

Table 5: Buck rearing pattern (%).

Characters	Watrap	Rajapalayam	Srivilliputhur	Overall (F)
Number of Bucks maintained				
1-2	60.00	54.44	64.44	59.63
3-4	34.44	30.00	30.00	31.48
More than 4	5.56	15.56	5.56	8.89
Buck change over period				
No change	0.00	0.00	4.44	1.48
1-2 years	74.44	74.44	50.00	66.29
More than 2 years	25.56	25.56	45.56	32.23

Table 6: Experience, exposure to training centre (%).

Characters	Watrap	Rajapalayam	Srivilliputhur	Overall (F)
Experience				
Less than 10 years	60.00	60.00	65.56	61.85
More than 10 years	40.00	40.00	34.44	38.15
Exposure to training institute				
Exposed	0.00	5.56	0.00	1.85
Not exposed	100.00	94.44	100.00	98.15
Need training on goat farming	20.00	60.00	24.44	34.81
No need training on goat farming	80.00	40.00	75.56	65.19

person mostly head of the family involved in goat farming percentage was 71.85 followed by 26.29 and 1.85 by 2-3 members of family and more than 3 members of the family respectively. Raghavan and Raja, (2012) reported that goat rearing in Malabar region of Kerala is mainly in the hands of women. Rengnekar (1994) also reported significant role of women in livestock farming.

Buck rearing pattern

Data on buck rearing pattern is shown in Table 5. Most of the farmers in Watrap block (60%) maintained 1-2 bucks per flock followed by 3-4 bucks (34.44%) and more than 4 bucks (5.56%). The same trend was followed in all three blocks. Most of the farmers in Watrap block (74.44%) maintained the bucks up to 2 years for breeding followed by 25.56 % maintained for more than 2 years. This was comparable with Rajapalayam block. However, 4.44% goat farmers in Srivilliputhur block did not change their bucks and has no awareness about the importance of changing bucks in flocks for breeding purpose. Overall in the study area 66.29% goat farmers maintained their bucks for 1-2 years.

Experience and exposure to training centre

Experience in goat farming among the farmers in study area is shown in Table 6. In Rajapalayam and Watrap block, experience of farmers in goat farming less than 10 years and more than 10 years were 60% and 40 % respectively. In Srivilliputhur block 65.56% of goat farmers were less than 10 years of experience followed by 34.44% more than 10 years experience. This may due to more number of youngsters involved in goat farming in Srivilliputhur block.

Exposure to training centre

Data on exposure to training centre is shown in Table 6. Most of the goat farmers (100%) in Watrap and Srivilliputhur were not exposed or accessed training centre, but 5.56% of goat farmers in Rajapalayam block were exposed to training centre. Compared to other blocks illiterate goat farmers percentage was high in Rajapalayam block even though 60% of goat farmers wish to attend training on goat farming. 80% goat farmers in Watrap block and 75.56% in Srivilliputhur block did not wish to attend training. This could be due to more distance to training centre and no awareness about the importance of attending training to improve the socio economic status of goat farmers.

CONCLUSION

The study concluded that most of the goat farmers in the fringe villages of western ghat region belonged to 35 to 50 years of age and lived in nucleus family. Nearly 86% of them were landless, average flock size was 10-30, maintained their goats by grazing at common land for more than 6 hours but majority of them owned house. They depend on government dispensary for veterinary health care. Overall 59% of goat farmers reared 1-2 bucks and kept the bucks up to 2 years for breeding purpose. Most of the goat farmers were illiterate, less than 10 years experience in goat farming and majority of them were not exposed to training centre. Further, they did not wish to attend training on goat farming to improve their socio economic status. It is suggested that government or any other agency should take necessary steps to expose them for scientific farming which will improve their socio economic status.

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