



International Journal of Research Publications

Socio Economic Status and Infrastructure Availability of Goat Farmers in Eravur and Vantharumoolai Veterinary Ranges in Batticaloa District

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Abstract

A survey was carried out to gather information on socio-economic status and infrastructure availability of goat farmers in Eravur and Vantharumoolai veterinary ranges in Batticaloa district. Aim of the study was to assess and document the socio-economic status of goat farmers, infrastructure and available facilities and resources of goat farmers. A pre-tested structured questionnaire was administered to randomly selected goat farmers. 120 goat farmers were coded and entered in Microsoft Excel and transferred into SPSS for analysis. Male participation is highly observed in goat farming in the study area. Males commonly involve in goat farming both veterinary ranges. Mostly married people involved in goat farming which was 100% and 77.5% in Eravur and Vantharumoolai veterinary ranges. Majority of the farmers completed grade 1 to 5 in both ranges. In Eravur and Vantharumoolai veterinary ranges 20% and 17.5% of the goat farmers have more than 10 year experience in goat farming. Goat farmers who do livestock farming as a main occupation are 12.5% in Eravur veterinary range and 32.5% in Vantharumoolai veterinary range. In Eravur and Vantharumoolai veterinary range 95% and 87.5% people receive good

transport facilities respectively. Farmers receive adequate facilities of electricity, water and marketing in both veterinary ranges. Storage facilities are good in Eravur and Vantharumoolai farmers which are 85% and 50% respectively. The study reveals that, considerable amount of goat farmers are available with good supply of transport, electricity, water, marketing and storage facilities in both veterinary range. Among two Eravur veterinary range has good infrastructural facilities than Vantharumoolai veterinary range

Key words: Goat farming, infrastructure facilities, socio-economic status

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1. Introduction

In small holder farming systems in Asia, small ruminant production is closely incorporated towards food production. A greater percentage of small ruminants adept in drier ecological regions under extensive management systems in many Asian countries to acquire meat, milk skins and manure (Devendra, 2007). In the same way goat farming is a noticeable livelihood activity which makes certain food security for small and marginal farmers, landless labourers and rural folk in Sri Lanka. In Sri Lanka, about 75% of goats are reared in dry zone and intermediate zone (Department of Animal Production and Health, 2013) where climatic conditions are more suitable for goat production. The dry zone of Sri Lanka has been considered ideal for extensive development of goat farming, which would generate extra income for farming. However, due to lack of interest the goat population had decreased from 385,460 in 2009 to 312,846 in 2015 (Department of Animal Production and Health, 2015). Goat population in Sri Lanka is 312,846 and 53,092 goats in Eastern Province, while the population of goats in Batticaloa was 26,625 in 2014. Main purpose of goat farming in Sri Lanka was meat production (Department of Animal Production and Health, 2015).

Goat meat is generally consumed locally and may be exported. Milk is of secondary importance, being consumed primarily by the household in developing countries. Milk and milk products are important contributors to human nutrition (Nestel, 2005). It is called poor man's cow. Investment costs of small ruminants make them ideal for limited resource families, and helpful when addressing some of the causes of poverty.

Batticaloa district includes 8.5% of the total goat population of Sri Lanka in 2014 (Department of Animal Production and Health, 2015). The availability of goats and the management system in these areas exhibit poor performance. Based on the available information, it is evident that there is a great potential to upgrade the existing goat industry. In this context, a study was formulated to evaluate the socio-economic status and infrastructure availability of goat farmers in Eravur and Vantharumoolai veterinary range which is located in Eastern Province. This would be a basic step to uplift the goat industry in future.

2. Materials and Methods

This study was conducted in Eravur and Vantharumoolai veterinary ranges which are located in the Batticaloa district. Batticaloa is a prominent agricultural district in the central part of the Eastern Province of Sri Lanka. Around 75% of the land is flat terrain. The annual mean rainfall is less than 1500 mm and the temperature of vary from 25 °C to 35.4 °C.

In the survey 60 goat farmers were randomly selected in each veterinary range (Eravur and Vantharumoolai). Thus, the final samples were comprised with two veterinary ranges and 120 respondents. Structured questionnaire was designed for the study and consisted socio economic information (Gender, age distribution, civil status, family size, ethnicity,

education level, type of occupation, experience in goat farming) and infrastructure facilities (Transport, electricity, water, market and storage) of goat farmers.

The details about the goat farmers were collected from veterinary offices at each veterinary range. Before the commencement of the data collection, the questionnaire was pre-tested to assess the suitability of questionnaire. Primary data were collected from goat farmers by face to face interview with structured questionnaires. Secondary data were collected from Department of Animal production and health, Divisional Secretariat of each area and Department of census and statistics. All the data were gathered from filled questionnaires, checked, coded, entered in Microsoft excel spread sheet and transferred to SPSS (Static Package for Social Science) for analysis.

3. Results and Discussion

1.1 Socio-economic Status of Goat Farmers

1.1.1 Gender Involvement, Civil status, Family size, Education level, Experience in goat farming of sample goat farmers

Table 1 shows the gender involvement, civil status, family size, educational level and experience in goat farming in Eravur and Vantharumoolai veterinary ranges. Male participation was highly observed in Eravur veterinary range and it was followed by Vantharumoolai veterinary range. There was no any female participation in the Eravur veterinary range. It may be due to social and religious restrictions. Married farmers were taken majority in goat farming. There were no any farmers who were single in study area. It may be due to single farmers may engage in work activities as they lack of interest in livestock farming.

Table 1: Gender involvement, civil status, family size, education level, and experience in goat farming

Veterinary range	Gender				
	Male	Female			
Eravur	100%	0%			
Vantharumoolai	72.5%	27.5%			
	Civil status				
	Single	Married	Widow/Widower	Divorced	
Eravur	0%	100%	0%	0%	
Vantharumoolai	0%	77.5%	22.5%	0%	
	Family size				
	Up to 3	4-5	6-7	>7	
Eravur	5%	22.5%	62.5%	10%	
Vantharumoolai	30%	65%	5%	0%	
	Education level				
	Non-schooling	Grade 1-5	Grade 6-10	O/L& A/L	Graduate/Diploma
Eravur	5%	67.5%	15%	12.5%	0%
Vantharumoolai	2.5%	55%	27.5%	15%	0%
	Experience in goat farming				
	< 1	1-5	5-10	>10	
Eravur	5%	20%	47.5%	27.5%	
Vantharumoolai	2.5%	17.5%	62.5%	17.5%	

It was indicated that most of the farmers had family size of 4-5 and 6-7 in the Vantharumoolai veterinary range and Eravur veterinary range. All the members of the

family were participating in the farming activities in both ranges. Kumar and Deoghare (2003) reported that, goat provided a chance for well-organized utilization of family labour. Majority of the goat famers had very low level of education (Grade 1-5) in entire study area. It may be due to the availability of the primary education facilities in such areas. Farmers need a basic level of education to understand and read relevant news, rules and notices which can affect productivity significantly (Alam et al., 2011). There was no any graduated or diplomatic goat farmer in the whole study area. It may due to the people who graduated or diplomatic are not involved in goat farming. Most of the farmers had more than 5 years of experience in the goat farming at entire study area. Few of the farmers had less than 1 year of experiences in the goat farming in all the study areas.

3.1.2 Occupation of Goat Farmers

The Figure 1 shows the types of occupation of goat farmers in the entire study area. In Eravur and Vantharumoolai veterinary ranges highest percentage of the goat farmers were in the Government or private sector and no involvement in the crop farming. It may be due to low fertility of the soil in that area. Eravur veterinary range showed highest percentage of goat farmers involved in enterprises due to urbanization in the area.

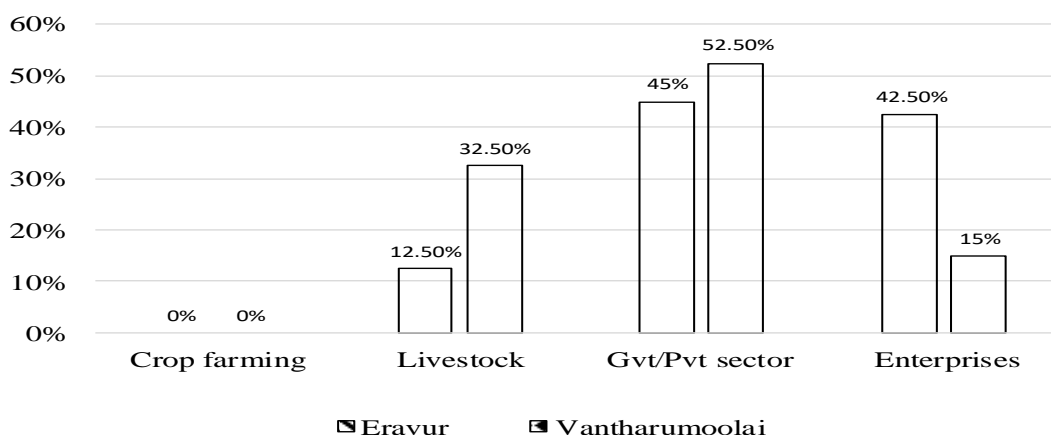


Figure 1: Occupation type of goat farmers

3.1.3: Age Distribution of Goat Farmers

The age distribution of goat farmers at Eravur and Vantharumoolai veterinary range was shown in the Figure 2. The findings revealed that, a significant proportion of the farmers were between 30 and 45 years indicating that the farmers were primarily middle aged who are in their economically active stage. It also showed lack of interest of involvement in goat farming of new generation. It may due to the increasing in the schooling of children of farmers and improvements in their livelihoods.

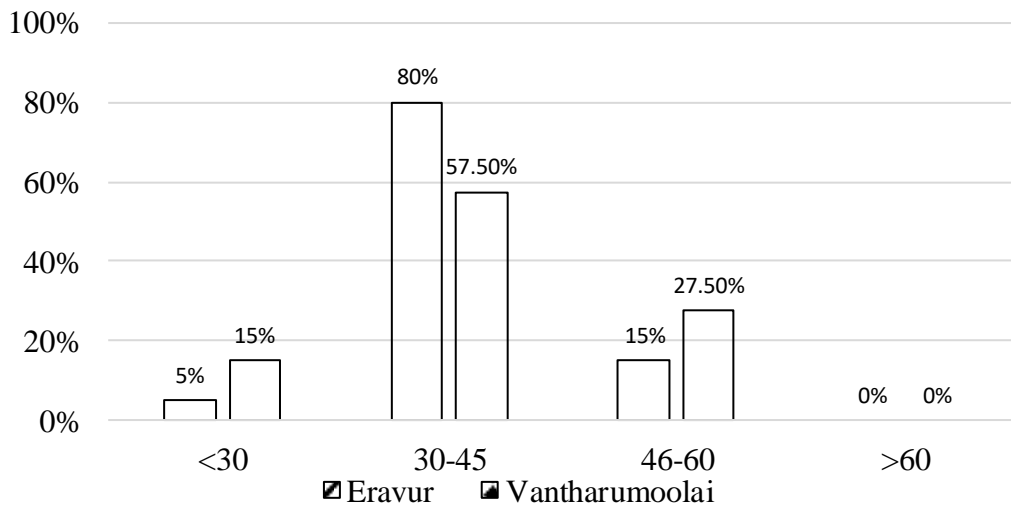


Figure 3: Age distribution of goat farmers

3.2 Infrastructure Facilities

The infrastructure facilities of respondents investigated in the survey was included transport, electricity, water supply, marketing and storage.

3.2.1 Transport

Table 2 shows the transport facilities available in study area. Eravur veterinary range showed the highest percentage of improved transport facilities. It may be due to urban condition of the area. The results revealed that, very low percentage of the goat farmers had been receiving poor transport facilities in Vantharumoolai veterinary range due to damaged roads and lack of available vehicles.

Table 2: Transport facilities available in study areas

Veterinary range	Transport		
	Good	Moderate	Poor
Eravur	95%	5%	0%
Vantharumoolai	87.5%	7.5%	5%

3.2.2 Electricity

The findings revealed that 100% of the goat farmers received electricity facilities in Eravur veterinary range while 95% in Vantharumoolai. Only 5% goat farmers had not been receiving electricity facilities in Vantharumoolai veterinary range. It may be due to non-developed infrastructure facilities.

3.2.3 Water

3.2.3.1 Water Supply

Table 3 shows the water supply facilities available in study area. Eravur veterinary range has majority of good water supply. It may be due to availability of municipal water supply

to the goat farmers. In Vantharumoolai veterinary range, few farmers had been receiving poor supply of water. It may be due to non-developed infrastructure facilities and unavailability of municipal water.

Table 3: Water supply facilities available in study areas

Veterinary range	Water supply		
	Good	Moderate	Poor
Eravur	100%	0%	0%
Vantharumoolai	95%	2.5%	2.5%

3.2.3.2 Source of Water

Source of the water in Eravur and Vantharumoolai veterinary ranges is shown in the Table 4. In Eravur veterinary range municipal water was the major water source while water wells were the major water source in Vantharumoolai veterinary range. It may due to Eravur veterinary range was in urban area and goat farmers in Vantharumoolai veterinary ranges were in rural area.

Table 4: Source of water

Veterinary range	Source of water			
	Water well	Pond	River	Municipal/Piped
Eravur	27.5%	0%	0%	72.5%
Vantharumoolai	87.5%	0%	0%	12.5%

3.2.3.3 Water Quality

The Table 5 shows water quality study area. Water quality was good for majority of farmers in the entire surveyed area. In Eravur and Vantharumoolai veterinary ranges few farmers received salty water for goats. It may due to soil condition of the area. Very few farmers received smelly water in Vantharumoolai veterinary ranges and it may due to poor sanitation and polluted water resources. The results revealed that 97.5% goat farmers in Eravur range received clean due to municipal water supply.

Table 5: Water quality

Veterinary range	Water quality			
	Clean/Good	Muddy	Salty	Smelly
Eravur	97.5%	0%	2.5%	0%
Vantharumoolai	90%	0%	7.5%	2.5%

3.2.3.4: Distance to Farthest Watering Point

Access of water is better in Eravur veterinary region (Table 6). In Vantharumoolai veterinary region 12.5% of farmers were far away from water source (less than 1 km). Majority of the goat farmers received water at household in both veterinary ranges. Goat farmers in Eravur veterinary range depended only on household water.

Table 6: Distance to farthest watering point

Veterinary range	Distance to farthest watering point		
	Household	<1km	1-5km
Eravur	100%	0%	0%
Vantharumoolai	87.5%	12.5%	0%

3.2.4 Marketing Facilities

The results revealed that both veterinary ranges had good marketing facilities. High percentage of marketing facilities was observed in Eravur than Vantharumoolai veterinary range which is 95% and 5% respectively. It may be due to high demand and great consumer preference for goat meat in those areas.

3.4. 5: Feed Storage Facilities

Storage facilities availability in surveyed area is shown in the Table 7. There were no poor storage facilities in Eravur veterinary range due to good and modern feed storage facilities. The results indicated that only half of the farmers in Vantharumoolai Veterinary range have good feed storage facilities because the farmers in Vantharumoolai are not practicing feeding goats by stored feeds and they only focus on grazing goats on natural grass lands.

Table 7: Storage facilities available in study area

Veterinary range	Storage			
	Good	Moderate	Poor	Not available
Eravur	85%	15%	0%	0%
Vantharumoolai	50%	42.5%	2.5%	5%

Conclusion

The survey concluded that, considerable amounts of the farmers in the study area are doing goat farming as a secondary source of income with primary educational level and adequate experience. Infrastructural facilities are available in both veterinary ranges to carry out goat farming profitably.

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