

ECONOMICS OF HOUSEHOLD MALABARI GOAT FARMING IN NORTHERN REGION OF KERALA

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ABSTRACT

A study was undertaken to evaluate the economics on household goat farming in Malabar Region of Kerala. The study was conducted at Thaliparamba and Thalassery, Thanur and Vadakara, Kottakkal and Tirur which belongs to Kannur, Kozhikode and Malappuram district of Malabar regions were All India Coordinated Research Project for the improvement of Malabari goat are operating. A well structured pre-tested interview schedule were developed at the Centre for Advanced Studies in Animal Genetics and Breeding, College of Veterinary and Animal Sciences, Mannuthy, Kerala from a total of 360 randomly selected goat farmers 60 each from all the six centres were selected for the study. The result revealed that the literacy rate of the head of the small ruminant breeder house hold was 96 %. The average land holding size was 24.1 cent. The average goat flock size was four. The gross income of goat farming was constituted by sale of animals (67.26 %), milk (32.23 %) and manure (0.51 %). The corresponding net return per goat was Rs. 711.75 with benefit-cost ratio of 1.49, respectively. The net returns generally decreased with increase in size of holding.

KEYWORDS: *Thaliparamba and Thalassery, Malabar Regions, Animal Sciences*

Received: Mar 15, 2016; **Accepted:** Jun 06, 2016; **Published:** Jun 15, 2016; **Paper Id.:** IJASRJUN2016065

INTRODUCTION

Among various livestock production enterprises, goat farming is one of the important enterprises, which supports the rural households by providing gainful employment and steady income for the rural masses (Prasad *et.al.*, 2013). The role of goat farming in the upliftment of small, marginal farmers including landless agricultural labours in India is well recognized (Kumar *et.al.*, 2014). The contribution of goat to total milk production of India was 3.82 percent were as, it is 69.35 percent in case of meat production (GOI, 2006). The goat meat demand is ever more increasing as Indian costumers prefers goat meat comparing to other meats (Mohan *et.al.* 2008). India holds 124.50 million of the world goat population mostly reared by poor marginal and landless rural farmers (Rai and Singh, 2010). Kerala got 1.2 million goats (Annual Report, 2015-16). The important native breeds of Kerala are Malabari and Attappady black (Raghavan and Raja, 2012). Mostly women in the household rear goat and goat farming offers immense opportunities and potential for generating income and employment to land less, resource poor's and act as a means to enhance women empowerment in the state. Keeping in view, a study was conducted of 'Evaluation of production economics of household goat farming in Malabar Region of Kerala'.

MATERIALS AND METHODS

The study was conducted at six centers in the three districts of Northern Kerala in India viz. Kannur

(Thaliparamba and Thalassery), Kozhikode (Thanur and Vadakara) and Malappuram (Kottakkal and Tirur) where the All India Coordinated Research Project for the improvement of Malabari goat was implemented. A total of 360 randomly selected goat farmers 60 each from all the six centres were selected for the study. Information was collected through a well structured pre-tested interview schedule developed at the Centre of Advanced Studies in Animal Genetics and Breeding, College of Veterinary and Animal Sciences, Mannuthy, Kerala. The baseline information on the economics of goat rearing were collected and tabulated. Simple mathematical tools were used to evaluate the total expenses and profit returns from the farming.

RESULTS AND DISCUSSIONS

Small owners keep their flocks mostly in stall feeding with 2-3 hrs of grazing in the near places whereas, large goat owners keep their flocks completely on grazing especially in waste lands and common property area. In case of goat rearing, major labour forces were women and household members of the family.

Socio-Economic Status of Goat Keepers

Socio economic status of goat keepers like education level, land holding, family size and flock size are presented in Table 1 and Figure 1. Majority of goat keepers (92.50%) in the project area had school level education. Average land holding and family size were 24.10 cents and 4.20 respectively. About 9.10 per cent goat keepers were rearing only one adult goat and its kids. Average flock size was only 4.10. Per cent of goat keepers rearing cattle was only 5.10. Among this most of them reared 1-2 cattle (58.30 per cent).

Table 1: Socio-Economic Status of Goat Keepers

Part	Particulars	Percentage	Mean	
A	Education (level)	College	02.70	
		High School	28.50	
		UP school	28.90	
		LP School	35.70	
		Illiterate	4.20	
B	Land holding (cent)	<25	77.80	24.10
		25-50	14.30	
		50-75	2.30	
		75-100	1.80	
		>100	3.80	
C	Flock size	One	9.1	4.10
		Two	18.7	
		Three	24.8	
		Four	23.3	
		Five and above	24.1	
D	Family size(level)	Small (up to 4)	48.50	4.20
		Medium (5-8)	46.70	
		Large(>8)	4.80	
E	Percentage of goat keepers rearing cattle	5.10	2.70	
	No. of cattle	1		30.50
		2		29.80
		3		23.90
		4 and above		15.80

The production economics was calculated on the basis that the animals were allowed to graze for four hours and limited concentrate feeding are presented in the Table 2. The economics of production and efficiency of production are

presented in Table 3 and 4. The main source of income is from sale of kids followed by milk. Feed cost contributes more than 90% of expenditure with utilization of own labour. The feed conversion ratio is 4.90. Production life time (7 years) contribution of doe to the economy is about one lakh rupees (Annual Report, 2015-16).

Economics of Goat Production

Table 2. Illustrated the expenses and returns from a goat in an year. The major expenditure of goat production was the feed cost. The average feed cost was found to be Rs.22.00/Kg. Other expense was the veterinary aid (Table 2). On the other hand, the returns from goat farming were from sales of kids, milk and manure. The observed kiddings/years and the kidding rate were 1.5 and 1.63 respectively. Farmers were able to sell at a rate of Rs.2500.00 per kid. On an average, farmers used to sell goat milk at a competent price of Rs. 40.00 at household level. Usually doe have 90 days of lactation with 0.84 litre per day production and 1.5 kidding per year. Sales of manure also contribute substantially income to farmers with 300g per day for an year at the rate of Rs 5 per kilogram (Singh *et.al.*, 2011).

Table 2: Economics of Goat Production

EXPENDITURE	Particulars	Amount (Rs.)
	Feed (300g concentrate/animal, @Rs 22/Kg for 365days)	2409.00
	Veterinary Aid	300
	TOTAL	2709.00
RECEIPTS	Sale of Milk (0.85 litre/day production, @Rs 40/litre, 90 days in milk, 1.5 kidding/year)	4590.00
	Sale of Manure (300g/day, for 365 days @Rs 5/kg)	547.50
	Sale of Kids (1.5 kidding/year, 1.63 kids/kidding, Rs 2500/kid)	6112.50
	TOTAL	11250.00
	NET RETURNS/YEAR	8541.00
	NET RETURNS/MONTH	711.75

Economics of Growth/Weight Gain in Kids under Controlled Feeding for 90 Days

The returns mainly depend on the cost per Kilogram gain in body weight of kids.

Table 3: Economics of Growth/Weight Gain In Kids Under Controlled Feeding For 90 Days (4 To 6 Months of Age)

Parameter/kid	Mean Value
Kid starter intake	22.31kg
Cost of kid starter with CP-24%/ kg	Rs.20.81
Grass intake	30.70 kg
Cost of grass	Rs.1.5/kg
Total cost of feed and grass	Rs.510.32
Total weight gain	5.43kg
Daily gain	60.33g/day
Cost per kg gain	Rs.93.98/-
Feed to gain ratio	4.90

From the Table 3. it can be concluded that total weight gain on this period were 5.43 kg with daily gain of 60.33g per day. Cost per Kilogram body weight gain were found to be Rs. 93.98/- and feed to gain ratio were 4.90. Total cost of

feed and grass were found to be Rs. 510.32.

Efficiency of Production

Total returns per doe for lifetime were found to be Rs. 99,836.76 (Table 4). Net returns from goat were mainly from meat production (67.26 per cent of total return), milk production (32.23 per cent of total return) and Sales of manure (0.51 per cent of total return).

Table 4: Efficiency of Production

Details	Returns	
Live weight produced/doe/year at kidding (1.5 kidding/year, 1.63 kids/kidding, 2 Kg/kid)	=1.63 x 1.5 x 2	=4.89 Kg
Live weight produced/doe/year at adult (1.5 kidding/year, 1.63 kids/kidding, 22 Kg/adult)	=1.63 x 1.5 x 22	=53.79 Kg
Live weight produced/doe at kidding for lifetime (7 yrs productive life)	=1.63 x 1.5 x 2 x 7	=34.23 Kg
Live weight produced/doe at adult for lifetime (7 yrs productive life)	=1.63 x 1.5 x 21.8 x 7	=373.10 Kg
Meat produced/doe at adult for lifetime (Dressing percentage 42%, 7 yrs productive life)	=1.63 x 1.5 x 21.8 x 7 x 42	=156.70 Kg
Milk produced/doe for lifetime (0.85/day production for 90 days, 1.5 kidding/year)	=0.85 x 90 x 1.5 x 7	=803.25 L
Price of Milk produced/doe for lifetime (Rs 40/L)	=0.85 x 90 x 1.5 x 7 x 40	=32130
Price of Meat produced/doe at adult for lifetime (Rs 450/Kg)	=1.63x1.5x21.8x7x0.4x450	=67159.26
Sale of Manure	=1.63x1.5x2500	=547.5
Total Returns/doe for Lifetime		Rs 99,836.76

CONCLUSIONS

Since goat meat is mostly free from any religious taboos, they are the most frequently consumed meat in the world. (Baruwa,2013). The production expenses as well as the total capital required for the goat husbandry is very less when compared to other livestock's, It would be further recommended that better marketing and value addition of the goat products will ensure proper value for money for the farmers as well as better income for the goat keepers in the area.

ACKNOWLEDGEMENT

The authors are thankful to the director, Centre for Advanced Studies in Animal Genetics and Breeding for his technical guidance and support. The financial help provided by Centre Institute for Research in Goat, Mathura, UP, for All India Co-ordinated Research Programme for Malabari Goat Improvement.

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APPENDICES

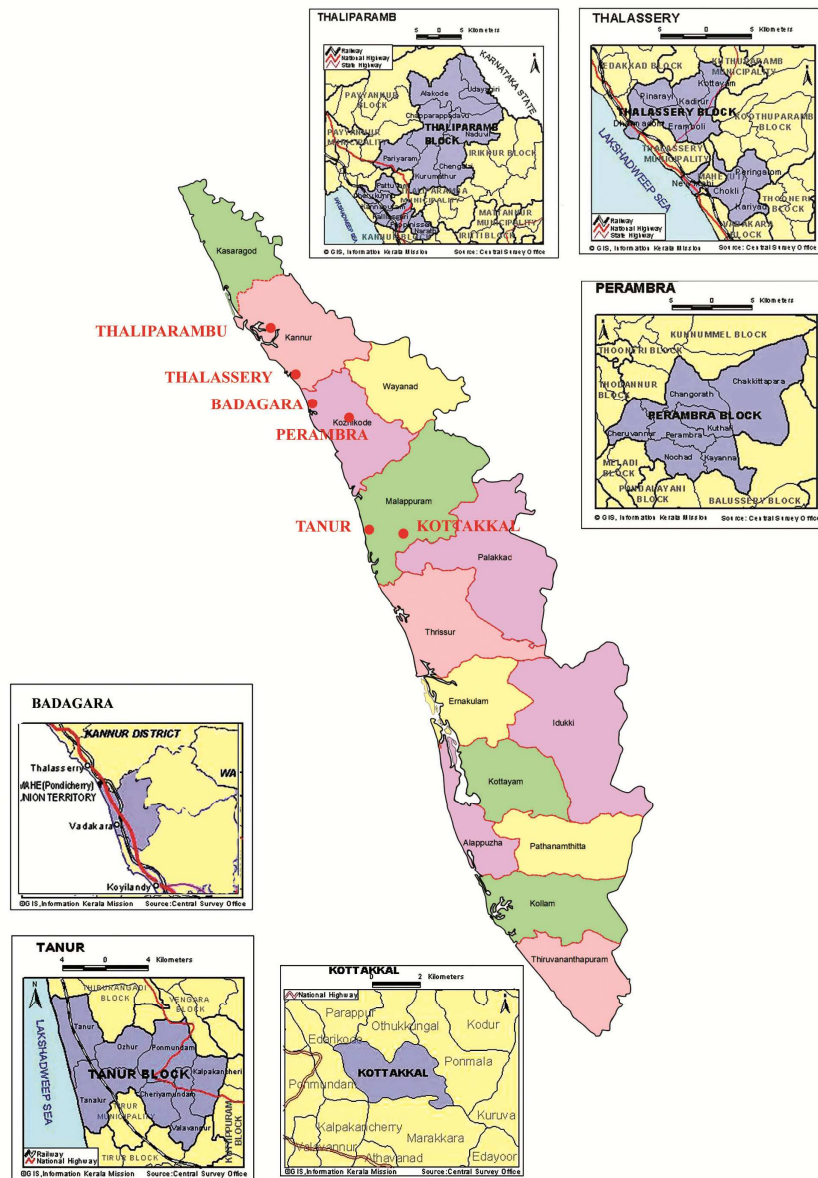


Figure 1: Distribution of Fiend Units

