

Research Paper

Goat Rearing Enterprise in Osmanabad District of Maharashtra: A Cost and Profitability Measures

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ABSTRACT

The father of our nation, Mahatma Gandhi had given a dignified position to goats in India's rural economy and called them as "poor man's cow". The present study was conducted to estimate cost and return of goat rearing enterprise in Osmanabad district of Maharashtra during year 2019-20 with using a well-structured questionnaire from 32 goat rearers. The result of revealed that per flock per annum total cost incurred was ₹ 118905, in which share of variable cost was 72.57 per cent followed by that of fixed cost 27.43 per cent. At overall level per flock per annum gross return was ₹ 169583.85. At overall level the net profit in goat rearing enterprise was ₹ 123229. The study revealed that benefit cost (B-C) ratio for per flock of goat was 3.66. In order to turn goat rearing into profitable enterprise in Osmanabad district, the goat rearers must be given training on credit facilities, proper marketing and reduction of the middlemen will ultimately reduce the marketing cost and better income for the rearers.

HIGHLIGHTS

- Highest income from goat rearing in Osmanabad district is achieved through sale of young goats.

Keywords: Cost, Return, B-C ratio, Maharashtra

The contribution of goats to the rural economy is highly inevitable. India's climatic and economic situation favours goat farming as they are adaptive to various agro-climatic conditions ranging from arid dry to cold arid to hot humid. Specifically in mountainous, semi- arid and arid regions of India goat rearing can be easily carried out by farmers (Chivare, 2012). Goat rearing is more profitable to farmer because of the low investment cost, high profit and serves as a sustainable source of income. Goats are important in resource-poor communities because they provide tangible benefits such as cash income from animal sales, meat for home consumption and manure.

Present population of goat in the world is around 861.9 million (FAOSTAT, 2019). India ranks second in World Goat Production. Among the Asian countries, China ranks first in goat population with 182.89 million goats followed by India, Pakistan,

Bangladesh and Nigeria. China contributes 18.19 per cent of the total world goat population.

According to the 20th livestock census in 2019, goat population in India is around 148.88 million. Total goat population has increased by 10.14 per cent over previous Livestock Census i.e. 2012 (DAHD, 2019). In India, sheep and goat together contributes 20 per cent out of total meat production out of which goat alone contributes a share of 65 percent. Major goat meat producing states are Rajasthan, Jammu and Kashmir, UP, Gujarat, Hilly regions of North and East Himalayas. In the state of Maharashtra, 10.60 million goats are present (Randhave *et al.* 2021). Out of these 218268 goats are present in

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Osmanabad District. Hence, an attempt has been made to analyze costs and returns of goat rearing enterprise in Osmanabad district.

MATERIALS AND METHODS

Multistage sampling design was adopted for the selection of district, tehsils, village and goat rearers. A sample of 32 goat rearers was drawn from selected villages randomly and from each village 8 goat rearers were selected. The primary data required for the study was collected with the help of pre-tested schedule. Descriptive statistic was used to analyse the data and to achieve the objectives of the present study, standard cost concepts were used.

Analytical Technique

The total cost was divided into fixed cost and variable cost. Depreciation on equipment and shed was calculated at the rate of 10 per cent. The interest on variable cost was charged at the rate of 13 per cent per annum. The interest on fixed cost including initial value of the animal, byre and equipment were worked out at the rate of 10 per cent per annum. The net return earned for per goat and per flock were obtained by deducting the total costs from total returns.

Net Return

Net returns = Total returns – Total costs

Output – Input ratio

The Output – Input ratio is the ratio of the gross income to the total cost. The output – input ratio at working cost and total cost of maintenance was calculated.

Output-Input Ratio = Gross Income/ Cost

RESULTS AND DISCUSSION

Annual cost per goat was estimated based on depreciation on shed, appreciation on goat, investment on feeding, labour wages, electricity, veterinary services spend in a year and other miscellaneous charges. Total expenses were grouped into two categories viz. variable cost and fixed cost. Variable cost consists of expenses on feedings, human labour, medicine, electricity charge and miscellaneous charges. Table 1 portrays the variable cost, fixed cost and total cost incurred for a flock of goat in goat rearing enterprise in a year.

Table 1: Category wise per flock per goat cost of maintenance

Sl. No.	Particulars	Amount (₹)	Percent
1	Human labour	57620.40	48.46
2	Dry fodder	1944.81	1.63
3	Green fodder	1721.70	1.45
4	Concentrate	10840.06	9.12
5	Medicine	1756.37	1.48
6	Electricity charge	951.84	0.80
7	Miscellaneous expenditure	814.45	0.68
8	Interest on variable capital (13%)	10636.31	8.95
9	Operating cash expenses	86285.94	72.57
10	Depreciation on asset (10%)	926.72	0.78
11	Interest on fixed capital (10%)	31692.34	26.65
12	Fixed expenses	32619.06	27.43
13	Total expenses	118905	100

Figures in parentheses indicate percentage to total.

The share of interest on variable capital for per flock was 8.95 per cent (₹ 10636.31) while share of interest on fixed capital was 26.65 per cent (₹ 31692.34). Per flock proportionate share of depreciation on asset was 0.78 per cent (₹ 926.72). At the end of result per flock fixed expenses was ₹ 32619.06 (27.43 per cent) and the variable cost per flock was ₹ 86285.94 (75.57 per cent). In general, total cost for per flock was ₹ 118905.

Table 2: Category wise per flock per annual gross return, net return and B-C ratio

Sl. No.	Particulars	Return (₹)	Percent (%)
1	Sale of young goat	160702.55	94.76
2	Income from milk	5856.94	3.45
3	Income from manure	3024.36	1.78
4	Gross return	169583.85	100
5	Variable cost	14635.68	31.57
6	Fixed cost	31719.18	68.43
7	Total cost	46354.86	100
8	Operating income	154948.2	
9	Net profit	123229	
10	B:C Ratio	3.66	

Figures in parentheses indicate percentage to total.

The highest income from goat rearing enterprise for per flock was gained through sale of young goats

contributing ₹ 160702.55 (94.76 per cent). Similarly, income from milk and income from manure for per flock was ₹ 5856.94 (3.45 per cent) and 3024.36 (1.78 per cent) respectively.

The results displayed in Table 2 concluded that the returns from per flock of goat in a year were contributed mainly from sale of young goats, milk and manure. The total net profit for per flock of goat was ₹ 123229. Thus, the study revealed that benefit: cost (B- C) ratio for per flock of goat was 3.66.

CONCLUSION

The present study concluded that human labour hold a major share of 48.46 per cent to the variable. Total cost incurred per goat and per flock was ₹ 5945.25 and ₹ 118905, respectively. The highest income from goat rearing in the study area was from sale of young goats (94.76 per cent) followed by income from milk (3.45) and income from manure (1.78 per cent). The study concluded a total gross income per goat of ₹ 8479.13 with net profit of ₹ 6161.45 per goat. Similarly, for per flock the total gross income was estimated to be ₹ 169583.85 with net profit of ₹ 123229. The overall Benefit: Cost (B-C) ratio was found to be ₹ 3.66. The study suggests that there is a need to improve the market infrastructure in the study area so that the farmers generate additional income and secure profitable return from goat enterprise.

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