

CONSTRAINTS PERCEIVED BY FARMERS IN INTENSIFIED AND TRADITIONAL GOAT FARMING SYSTEMS OF NORTH WESTERN ZONE TAMIL NADU

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Abstract: A study was carried out to understand the perceived constraints of intensified goat farmers in North western zone of Tamil Nadu. The study was spread to conducted in all the four districts the zone namely Namakkal, Salem, Dharmapuri and Krishnagiri. A total of 60 farmers from each farming system namely intensified and traditional farming constituted the sample for the study. The study found that in intensified farming, continuous drought was ranked as the first and foremost constraint perceived by the respondents with RBQ value of 39.77 followed by low selling price with RBQ value of 10.96. While in traditional farming lack of grazing land was ranked as the first and foremost constraint perceived by the respondents with RBQ value of 21.67 followed by low selling price (RBQ - 4.17). It could be concluded that promoting drought resistant fodder varieties to mitigate the effect of drought and diminishing grazing land as well as facilitation of forward linkages and organised market would help the farmers in realizing better price and improved returns.

Keywords: Goat farming, constraints, intensification.

Introduction

In India, livestock sector is one of the important sub-sectors of agrarian economy. This sector plays a substantial role in supplementing farmers family income; cope up mechanism during crop and market failure; acts as collateral during family emergencies; and has acknowledgeable role in empowering women. Within livestock sector, goat farming is one among the notable livestock based livelihood option for unprivileged sections of rural society. But this goat farming in the post globalisation era was exposed to new context. Increasing urbanisation, changing consumption pattern and increasing population growth have been propelling demand for meat and meat products including chevon. The meat requirement for the year 2020 was estimated to be around 9.6 million tonnes against the current availability of 4 million tonnes per annum. Thus, a demand for chevon meat exists. At the same time diminishing of pasture land, change in cropping pattern and quitting of farmers from agriculture are noticed. Above all together pave way for emergence of intensified goat farms in selected parts of Tamil Nadu. Thus intensified and traditional 43 goat farmers are

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engaged in chevon production. In order to meet the increasing demand of meet there is a necessity to understand the constraints in the intensified and traditional goat farming system for interventions.

Materials and methods

In this study, the farmers rearing more than 20 goats, grazing less than four hours per day with supplementation of concentrate and/or feeding fodder were considered as intensified farms. A list of intensified farmers in the selected districts was collected from various stakeholders of livestock sector. From the collected list, the farmers currently maintaining intensified farm were confirmed through telephone. From the confirmed list, 26 farmers from Namakkal, 19 farmers from Salem, 11 farmers from Dharmapuri and 4 farmers from Krishnagiri district were selected using proportionate random sampling technique. Thus, a total of 60 farmers constituted the sample for the study. In addition to that, an equal number of traditional farmers were also randomly selected from the four districts for comparison.

The data on constraints were collected using pretested interview schedule. The respondents were requested to enlist the perceived constraints and rank them based on the degree of magnitude, urgency and importance. The ranked constraints were quantified by Rank Based Quotient (RBQ) technique developed by Sabarathnam and Vennila (1996) for understanding the severity.

$$\text{Rank Based Quotient (RBQ)} = \frac{\sum(f_i(n+1) - i)}{N \times n} \times 100$$

Where, i - i^{th} rank

f_i - Number of respondents giving the particular point at i^{th} rank

N - Total number of respondents

n - Number of ranked items.

The appropriate rank was given based on the RBQ value.

Results and discussion

Perceived constraints in goat farming

Constraints perceived by the farmers in goat farming were studied and presented in Table 1. In intensified farming, 40.00 per cent of the respondents perceived continuous drought as a major constraint followed by low selling price, labour problem, difficulty in buying fattening kids, high cost of concentrate and inadequate milk for kids by 13.33 per cent, 10.00 per cent, 10.00 per cent, 6.67 per cent and 5.00 per cent of the respondents respectively. In traditional farming, 20.00 per cent of the respondents perceived lack of

grazing land as a major constraint followed by low selling price (5.00 per cent), inadequate milk for kids (5.00 per cent) and continuous drought (1.66 per cent).

Table 1: Constraints perceived by farmers in goat farming

(n=60 +60)

S.No	Constraints	Intensified farms per cent*	Traditional farms per cent *
1	Continuous drought	40.00	1.66
2	Low selling price	13.33	5.00
3	Inadequate milk for kids	5.00	3.33
3	Labour problem	10.00	-
4	Difficulty in buying fattening kids	10.00	-
5	High cost of concentrate	6.67	-
7	Lack of grazing land	-	20.00

*- Multiple response

Intensity of constraints in goat farming

The intensity of the enlisted constraints were quantified based on ranks and presented in Table 2. In intensified farming, continuous drought was ranked as the first and foremost constraint perceived by the respondents with RBQ value of 39.77. The average rainfall of Tamil Nadu was below normal during the period 2011 to 2016 except in the year 2015 (Waghmare, 2017). During this period, there was 2 to 66 per cent deficit in average annual rainfall. This resulted in low recharge of ground water and thus limited green fodder cultivation in the study area. This might be the reason for perceiving drought as top most constraint. Low selling price was perceived as second major constraint with RBQ value of 10.66. There is a considerable price difference between farmers sale price at farm gate and consumers price at the retail end. Majority of the intensified goat farmers sold their goats to the middlemen and the hidden brokerage charges might have reduced the returns. Labour problem also perceived as one of the major constraints with RBQ value of 9.77. Increasing employment opportunities and higher wages in non-farm sector, poor interest of youth in agriculture, absorption of local work force in MGNREGA activities and migration of agricultural labour force might be the reasons for shortage of labour for goat farming activities. In addition, difficulty in buying fattening kids, high cost of concentrate and inadequate milk for kids were the constraints perceived by respondents with RBQ value of 9.77, 9.23, 8.33 and 5.00 respectively.

The past studies on goat farming have also identified various constraints in goat farming systems. Kumar (2007) reported that the absence of specially designed vehicles for transporting live goats; mortality due to peste des petits ruminants, diarrhoea, pneumonia, tetanus; difficulty in identifying pure breed animals due to lack of knowledge; non availability of vaccines; low price for surplus live goats; and lack of institutional credit for small farmers were the constraints faced by the commercial goat farmers. The constraints perceived in intensified farming of this study are not in accordance with the finding of Kumar (2007) except sale price of goat. Subsequent droughts in the study area forced the farmers to perceive drought as the most severe constraint than other production and / or health constraints.

Table 2: Ranking of constraints based on severity

S.No.	Constraint	RBQ value	Rank
Intensified farming			
1	Continuous drought	39.77	I
2	Low selling price	10.96	II
3	Labour problem	9.77	III
4	Difficulty in buying fattening kids	9.23	IV
5	High cost of concentrate	8.33	V
6	Inadequate milk for kids	5.00	VI
Traditional farming			
1	Lack of grazing land	21.67	I
2	Low selling price	4.17	II
3	Inadequate milk for kids	3.33	III
4	Continuous drought	1.67	IV

In traditional farming, lack of grazing land was ranked as the first and foremost constraint perceived by the respondents with RBQ value of 21.67. Loss of quality grazing land due to low rain fall, unavailability of fallow lands due to change in cropping pattern, diversion of grazing land to other purposes might be the reasons for lack of grazing land. Low selling price was reported as the second major constraint with RBQ value of 4.17. The reasons discussed in the above section holds good here also. In addition, an inadequate milk for kids (RBQ - 3.33) ranked as third and continuous drought (RBQ - 1.67) ranked as fourth severe constraint.

Kumar (2013) observed that the management constraints were non availability of adequate grazing land, non availability of breeding stock and inadequate water facilities; socio economic constraints were difficulty in availing loan facilities, lack of subsidies and lack of insurance coverage; health constraints were non availability of vaccines, sudden outbreak of diseases and lack of veterinary aids; technical constraints were lack of knowledge, lack of training and lack of technical guidance; marketing constraints were middle man and non- remunerative price were the constraints in traditional goat farming. Similarly Yogi *et al.* (2014) reported that the constraints experienced by the respondents were lack of water resources, inadequate marketing facilities, scarcity of green fodder, insufficient veterinary facilities, inbreeding problem, scarcity of dry fodder, low availability and higher price of concentrates, poor awareness about credit facilities, limited grazing area and wild animals attack. Further, Sone *et al.* (2015) found that the top most constraint perceived was wild animals attack followed by high cost of mineral mixture, non availability of green fodder throughout the year, high cost of fodder, lack of man power and others in the order of importance.

The constraints of present study such as lack of gazing land / feeding resource and low selling price are in accordance with past studies.

Conclusion

It could be concluded that promoting drought resistant fodder varieties to mitigate the effect of drought and diminishing grazing land as well as facilitation of forward linkages (establishment of market yards, price discovery mechanisms, market intelligence, improving value chain etc.) would help the farmers in realizing better price and improved returns. Further, development of organised markets for live goats / chevon and linking to electronic-National Agriculture Market (e-NAM) would improve the bargaining power and economic status of goat farmers.

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