

**ANALYSIS OF CONSTRAINTS FACED BY AHIR GOAT KEEPERS
IN HEAVY RAINFALL ZONE OF GUJARAT**

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ABSTRACT

An attempt was made to document various constraints faced by Ahir community goat keepers by selecting 300 goat keepers from Valsad and Navsari districts of south Gujarat using multistage random sampling technique. The data was collected by interview schedule on five point agreement scale. The analyzed data revealed nine management related, ten socio-economic and five region specific constraints. Among them high feed cost and more illness and mortality emerged as the most important management related constraints. Lack of credit facility and high wage rate emerged as top socio-economic constraints. The region specific constraints identified were heavy rainfall condition and floods/natural disasters. It was suggested that the above said most important constraints must be considered for developing remedial package for profitable goat farming in the study area.

KEY WORDS : Constraint, Goat, Feeding, Management, Socio-economic.**INTRODUCTION**

Goat rearing is an economic boon for weaker sections of the Indian society. It provides small but very regular supplementary income to small farmers and rural poor. Ahir community in southern Gujarat is rural community that maintains goat flocks. Though they contribute small human population share, yet in terms of goat husbandry they seem to be quite resourceful. They have ample traditional knowledge base about goat rearing in heavy rainfall zone. They are generating good profit from traditionally maintained goat flocks in both districts (Sorathiya *et al.*, 2013). However, like goat keepers of arid or semi arid region they also face various constraints which limit their profitability. These two districts experience heavy rainfall with hot and humid climate. The poor goat owners in the area are not well equipped for heavy monsoon. They do not possess pakka goat shelters. They are not able to stall fed goats during rainy days. So monsoon is quite stressful to goats in the study area and responsible for specific constraints which may be different from arid or semi arid area. These constraints need to be understood, so as to make goat farming a viable economic enterprise to Ahir community in particular and other goat keepers in general. So far very negligible work has been carried out about constraints faced by goat keepers in heavy rainfall zone. Therefore, an attempt was made to study various constraints faced by Ahir goat keepers in south Gujarat

MATERIALS AND METHODS

The present study was conducted in the southernmost Navsari and Valsad districts of Gujarat having 60771 and 140715 goat heads, respectively as per 18th livestock census. Both districts fall under heavy rainfall zone with annual rainfall of 1800-2200 mm. The climate of this area is humid and the mean relative humidity remains above 68.27 per cent throughout the year. The constraints faced by Ahir goat keepers in study area were studied by selecting 300 Ahir goat keepers from thirty villages of six talukas in both districts by multistage random sampling technique. The management related, socio economic type and region specific constraints faced by respondents were recorded on five point agreement scale 1= strongly disagree, 2= disagree, 3= neutral, 4= agree and 5=

strongly agree (Likert, 1932) in interview schedule. The collected data was analyzed and tabulated as per standard statistical methods (Snedecor and Cochran, 1994) using IBM® SPSS® Statistics package Version 20.0. The non-parametric data was analyzed and individual mean ranks were obtained using Kendall's W non parametric test in SPSS. The obtained mean ranks were arranged in descending order to evaluate its relevance.

RESULTS AND DISCUSSION

Profile of Ahir goat keepers

The data about profile parameters of Ahir goat keepers are presented in Table 1. It revealed that majority of respondents were in middle age category and involvement of youths was very less. Similar result was also reported by Sorathiya *et al.*, (2013). The higher literacy rate and education level observed among Ahir goat keepers was quite higher than migratory goat keepers of other caste in present study was in accordance with the findings of Patil *et al.* (2012). The good education level in Ahirs might be associated with their non-migratory nature (Sorathiya *et al.*, 2013). Majority of respondents in present study were marginal land holders and similar findings were also reported earlier (Patil *et al.*, 2012 : Sorathiya *et al.*, 2013). Majority of Ahir goat keepers had medium flock size of 25-50 heads which are quite higher than goat keepers of other castes (Sorathiya *et al.*, 2013). The annual income of 52% respondents was more than Rs. 25,000 from goat rearing. Hence, it could be said that Ahirs under study are getting good employment by goat rearing.

Table 1: Profile of Ahir goat keepers (n=300)

Profiles related parameters		Frequency	Prevalence (%)
Age	Young (< 30 Years)	40	13.33
	Middle age (30-55 Year)	199	66.33
	Old (> 55 years)	61	20.33
Education	Secondary and above	77	25.67
	Primary to standard 9 pass	118	39.33
	Informally educated	32	10.67
	Illiterate	73	24.33
Land holding	Landless	18	6.00
	Marginal (< 1 Ha.)	238	79.33
	Small (1-2 Ha.)	36	12.00
	Large (> 2 Ha.)	8	2.67
Flock size	Small flock (< 25 Heads)	71	23.67
	Medium flock (25-50 Heads)	131	43.67
	Large flock (50-75 heads)	59	19.67
	Very large flock (> 75 goats)	39	13.00
Main enterprise	Goat rearing	192	64.00
	Labour work	7	2.33
	Agriculture	25	8.33
	Large animal rearing	62	20.67
	Other	14	4.67
Annual income from goats	< Rs. 25000	144	48.0
	>Rs. 25000	156	52.0

Management related constraints

It is apparent from table 2 that total nine goat management related constraints were known and reported during the study. Among them high feed cost, more illness and mortality, high cost of

veterinary services, shortage of herders and inadequate grazing resources emerged as five most important management related constraints with mean ranks 20.82, 20.78, 16.72, 14.89 and 14.01. Sabapara *et al.*, (2014) also reported that high feed cost was most important problem of goat keepers of south Gujarat. More illness and mortality emerged as the second most important constraint in this study. This may be due to heavy rainfall in study area. In fact, some literature reported (Anon., 2014) upto 30% mortality in kids of 0-3 month age in high rainfall zone due to proneness to many diseases, parasitic infestations and other illness in such climate. Other studies conducted in high rainfall regions had also reported illness and mortality as a most important constraint (Jana *et al.*, 2014 :Sabapara *et al.*, 2014). Further, high cost of veterinary service was also observed as third rank important constraint, which is in accordance with the findings of Sabapara *et al.* (2014). Shortage of herders particularly for grazing of goats was fourth important goat management related constraint observed in present study. It might be attributed to the fact that this activity was considered time consuming and labour intensive by the respondents. Therefore, despite of prevalent unemployment in village, availability of herders was scarce and nobody preferred this job. Meganathan *et al.* (2010) also mentioned about shortage of labours for goat management. Grazing problem or shortage of grazing land, however, was not the most important constraint in present study. It was also reported as top ranked constraint by Gujar and Pathodiya (2008) and Sabapara *et al.* (2014). The other less important management related constraints were inadequate veterinary services, lack of technical guidance, shortage of quality bucks and prevention of goat entry for grazing in empty fields by some farmers. The shortage of quality buck was not a major constraint among Ahir goat keepers. But, it was most important constraint for most of the goat keepers in India (Gujar and Pathodiya, 2008: Jana *et al.*, 2014 and Sabapara *et al.*, 2014).

Table 2: Constraints faced by Ahir goat keepers in south Gujarat

Sr. No.	Name of constraint	Mean rank	Rank
a Management related			
1	High feed cost	20.82	I
2	More illness and mortality	20.78	II
3	High cost of veterinary services	16.72	III
4	Shortage of herders	14.89	IV
5	Inadequate grazing resources	14.01	V
6	Inadequate vet services	12.54	VI
7	Lack of technical guidance	12.09	VII
8	Shortage of quality bucks	11.87	VIII
9	No entry for grazing of goats in empty fields by some farmers	6.98	IX
b Socio-economical constraints			
1	Lack of credit facility	15.61	I
2	High wage rate	15.08	II

3	Theft of goats	14.44	III
4	Middleman exploitation	10.34	IV
5	Non-remunerative price of goat milk	10.05	V
6	Disputed with other farmers about crop damage	8.01	VI
7	Unwillingness for goat keeping among educated youths	7.77	VII
8	Distantly located markets	7.51	VIII
9	Decreasing social status of goat keepers	7.42	IX
10	Flock handling difficulty due to disturbances from human activities	6.37	X
c Region specific constraints			
1	Heavy rainfall condition	19.52	I
2	Flood	17.71	II
3	Wild animal problem	14.91	III
4	Disease outbreaks	11.00	IV
5	Change in cropping pattern	7.54	V

Socio-economical constraints

Table 2 revealed that 10 socio-economically related constraints were recorded. Based on mean rank, lack of credit facility, high wage rate, theft of goats, exploitation by middle man and non-remunerative price of goat milk emerged as top five constraints. The lack of credit facility was the most important constraint of both districts which was also reported by Gujar and Pathodiya (2008), Meganathan *et al.* (2010) and Jana *et al.* (2014). Shortage of herders, theft and other losses and inadequate grazing resources were another constraints revealed. The study also noticed marketing problem and middle men problem leading to exploitation of goat keepers in the study area. Meganathan *et al.* (2010) and Sabapara *et al.* (2014) had also reported about importance of this constraint. The farmers can get remunerative price of their goat milk by establishing goat milk processing plants in study area on cooperative basis or by inviting investors.

Region specific constraints

These constraints are related to prevailing climate in the study area. Totally, five region specific constraints were identified, they were heavy rainfall condition, flood, wild animal problem, disease outbreaks and change in cropping pattern i.e. replacement of useful paddy cultivation by mango orchards (Table 2). Heavy rainfall and subsequent flood in main rivers in study area sometimes creates disasters. Both districts have good population of leopard and hyena, a well known enemy of goats also had some negative consequences on goat farming.

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