

## IMPACT OF TECHNOLOGICAL INTERVENTIONS ON THE ATTITUDE OF GOAT REARING FARMERS IN PANCHMAHALS DISTRICT OF GUJARAT

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### ABSTRACT

The to adoption of vaccination, deworming, ecto-parasiticides, mineral mixture and concentrate feeding were 2.50%, 10.83%, 20.83%, 3.33% and 16.67% respectively. However, after intervention i.e. organized animal health camp, training, advisory service and front line demonstration, the overall farmers adoption trends was higher in respect to vaccination, deworming, ecto-parasiticides, mineral mixture and concentrate feeding as 60.83%, 69.17%, 65.83% ,57.50% and 64.70% respectively. The overall improvement in the attitude of the goat rears with respect to adoption of goat husbandry technologies would be possible through the demonstration of efficient technologies needed for healthy goat rearing which has not only created awareness but also improved the attitude of goat rearers. It results from the study that the awareness regarding the available viable goat husbandry is essentially required to improve the productivity as well as socio-economic condition of the resource poor tribal farmers.

### INTRODUCTION

Goat husbandry plays a prominent role in the rural economy in supplementing the income of rural house hold particularly the landless, small and marginal farmers. Goat is considered as poor man's cow and it can profitably be reared with low investment under semi-intensive as well as the extensive systems of management. They provide quick return on account of their short generation intervals, higher rate of prolificacy and marketing of related products can be done at any time easily. Goat's importance is indicated by various functional contributions like milk, meat, skin, socio economic relevance, security, income generation, human nutrition and stability of farming system. Goats are the backbone of rural people economy of arid, semi-arid and hilly regions of our country. The district Panchmahals comprised of 11 Taluka, out of which 5 Taluka are dominated by tribals with high percentage of Schedule Caste and Schedule Tribes. In this tribal belt, poor management practices, adverse climatic condition and poor genetic base are the major constraints faced by the goat rears. Improved management practices have been recommended by various research and development organization to improve the goat production, but

for adopting these technologies, the farmers faced many constraints in adoption of these practices (Sharma and Riyazuddin, 1989). A few studies have been carried out which have direct relevance to the technological intervention. Understanding these facts, faced by the farmers, a questionair was formulated and technological intervention strategies were adopted to improve the attitude of goat rears towards various useful goat husbandry practices. The aim of the present study was to investigate the impact of technological intervention on the attitude of goat rearing farmers in Panchmahals district of Gujarat.

### RESEARCH METHODOLOGY

In present study, data were collected from 120 goat rearing families dwelling in 4 village of Kalol and Jambughoda Tehsil of Panchmahals district. Village viz. Kharsaliya, Bhadroli, Poyli and Rangeetpura were surveyed and the goat rearers were questioned as per formulated questionnaires which were prepared by KVK scientist keeping in view the problems faced by the goat rears of Panchmahals district of Gujarat. Accordingly, strategies of technological intervention were made regularly during the period of study. In adopted villages, KVK organized several activities

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like animal health camps, training programmes, advisory services and FLDs on concentrate and mineral mixture feeding. The technological interventions were proposed to assess, refine and improve the productivity of goat in terms of milk, meat etc. and health management. The major thrust was to improve the attitude of goat rearers through dissemination of improved technologies related to

goat production. Keeping this point in view, KVK Panchmahals has initiated and demonstrated transfer of technologies on goat production to the goat rearers of selected villages of the district. Adoption of feeding and health management practices as per animal health calendar in adopted villages were recorded before and after interavation of technologies imposed by KVK.

**Table 1. Socio-economic condition of small farmers**

Sr. No.	Particulars	Location (Village)				Overall N=120
		Poyli N=27	Bhadroli N=33	Kharsaliya N=21	Rangeetpura N=39	
<b>1.</b>	<b>Family Profile</b>					
a.	Low(<25years)	4 (14.81)	7 (21.21)	1 (4.76)	8 (20.51)	20 (17.67)
b.	Medium (26-50years)	22 (81.48)	21 (63.64)	18 (85.71)	24 (61.54)	85 (70.83)
c.	High (>50years)	1(3.71)	5 (15.15)	2 (9.52)	7 (17.95)	15 (12.50)
<b>2.</b>	<b>Caste</b>					
a.	SC	8 (29.63)	10 (30.30)	6 (28.57)	15 (38.46)	39 (32.50)
b.	ST	16 (59.26)	19 (57.58)	15 (71.43)	24 (61.54)	74 (61.67)
c.	Other	3 (11.11)	4 (12.12)	00	00	7 (5.83)
<b>3.</b>	<b>Education</b>					
a.	Illiterate	14 (51.85)	19 (57.58)	21 (100)	30 (76.92)	84 (70.00)
b.	Primary (<5 <sup>th</sup> )	11 (40.74)	11 (33.33)	00	8 (20.51)	30 (25.00)
c.	Middle and above	2 (7.41)	3 (9.09)	00	1 (2.56)	6 (5.00)
<b>4.</b>	<b>Main Occupation</b>					
a.	Agriculture	6 (22.22)	10 (30.30)	3 (14.29)	4 (10.26)	23 (19.17)
b.	AH	3 (11.11)	4 (12.12)	4 (19.05)	2 (5.13)	13 (10.83)
c.	Agriculture +AH	17 (62.96)	19 (57.58)	14 (66.67)	32 (82.05)	82 (68.33)
D	Service	1 (3.70)	00	00	1 (2.56)	2 (1.67)
<b>5.</b>	<b>Family Type</b>					
a.	Nuclear	12 (44.44)	13 (39.39)	7 (33.33)	13 (33.33)	47 (37.50)
b.	Joint	15 (55.56)	20 (60.61)	14 (66.67)	26 (66.67)	75 (62.50)
<b>6.</b>	<b>Annual Income</b>					
a.	Low (below Rs.10000)	9 (33.33)	15 (45.45)	19 (90.48)	32 (82.05)	75 (62.50)
b.	Medium (Rs.10000-20,000)	17 (62.96)	18 (54.55)	2 (9.52)	6 (15.38)	43 (35.83)
c.	High (above Rs.20,000)	1 (3.70)	00	00	1 (2.56)	2 (1.67)
<b>7.</b>	<b>Land Holding</b>					
a.	Landless	3 (11.11)	5 (15.15)	2 (9.52)	6 (15.38)	16 (13.33)
b.	Marginal (<0.5 hectare)	21 (77.78)	24 (72.73)	19 (90.48)	25 (64.10)	89 (74.17)
c.	Small (<0.5-2.0 hectare)	3 (11.11)	4 (12.12)	00	8 (20.51)	15 (12.50)

\*Figures in Parenthesis indicate Percentage.

## RESULTS AND DISCUSSION

### Socio economic

Goat is considered to be associated with the poor sections of the rural society which also proved true in this field of study because 94.17 percent household belonged to resource poor section of the rural population. Socio-economic status of goat

rearers is presented in Table-1. Majority of goat rearers (70.83%) belonged to middle age group. The results of the study are in agreement with the findings as reported by Pathodiya et al (2003). The participants of young and high age group in the goat rearers were found to be 17.67% and 12.50%, respectively. The reasons behind this might be due to difficulties faced by old people in the rainy and

adverse climate and engagement of young owns in other personal affairs. Majority of goat rears (70%) were illiterate and 25% goat rearers acquired primary level of education, while 5 % having middle and above levels of education in study area. Poor literacy rate may be one of the major reasons not hinder their intervention and poor to adopt the goat rearing technologies in study area. Agriculture and Animal Husbandry is the main occupation of 68.33 per cent goat rearers followed by 19.17, 10.83 and 1.67 per cent agriculture, animal husbandry and service, respectively. Similar results were also reported by Pathodiya et al (2003). The family types of goat rears (62.50%) belong to joint family where as 37.50% were from nuclear family. The majority of goat rears

were from medium income groups (62.96%), which indicated that the poor people kept goat for their livelihood. These results were in concurrence with the findings of Rao and Patro (2002). Most of the goat rears had less than 1.0 hectare of land, out of which  $\frac{3}{4}$  land was rain fed. In this situation, income from goat rearing plays a major role for their subsistence in such type of a remote places. These results of the study are supported by Rai and Singh (2004). Most of the goat rears were either land less or small land holders. It indicated that the major goat rearing practices was followed by small, land less and resource poor farmers of selected villages of the district.

**Table 2. Nutrition's and Health care practices (pre and post intervention of KVK)**

S. No.	Particulars	Village									
		Poyli (N=27)		Bhadroli (N=33)		Kharsaliya (N=21)		Rangeetpura (N=39)		Overall (N=120)	
		Pre - intervention	Post - intervention	Pre - intervention	Post - intervention	Pre - intervention	Post - intervention	Pre - intervention	Post - intervention	Pre - intervention	Post - intervention
<b>1</b>	<b>Vaccination</b>										
	Yes	00	18 (66.67)	1 (3.03)	20 (60.61)	00	12 (57.14)	2 (5.13)	23 (58.97)	3 (2.50)	73 (60.83)
	No	27 (100)	9 (33.33)	32 (96.97)	13 (39.39)	21 (100)	9 (42.86)	37 (94.87)	16 (41.03)	117 (97.50)	47 (39.17)
<b>2</b>	<b>Deworming</b>										
	Yes	4 (14.81)	22 (81.48)	6 (18.18)	24 (72.73)	00	18 (85.71)	3 (7.69)	19 (48.72)	13 (10.83)	83 (69.17)
	No	23 (85.19)	5 (18.52)	27 (81.82)	9 (27.27)	21 (100)	3 (14.29)	36 (92.31)	20 (51.28)	107 (89.17)	37 (30.83)
<b>3</b>	<b>Ecto-parasiticides (Dusting)</b>										
	Yes	6 (22.22)	19 (70.37)	9 (27.27)	24 (72.73)	2 (9.52)	14 (66.67)	8 (20.51)	22 (56.41)	25 (20.83)	79 (65.83)
	No	21 (77.78)	8 (29.63)	24 (72.733)	9 (27.27)	19 (90.48)	7 (33.33)	31 (79.49)	17 (43.59)	95 (79.17)	41 (34.17)
<b>4</b>	<b>Mineral Mixture feeding</b>										
	Yes	2 (7.41)	16 (59.26)	1 (3.03)	18 (54.55)	00	11 (52.38)	1 (2.56)	24 (61.54)	4 (3.33)	69 (57.50)
	No	25 (92.59)	11 (40.74)	32 (96.97)	15 (45.45)	21 (100)	10 (47.65)	38 (97.44)	15 (38.46)	116 (96.67)	51 (42.50)
<b>5</b>	<b>Concentrate feeding</b>										
	Yes	5 (18.52)	19 (70.37)	6 (18.18)	21 (63.64)	3 (14.29)	13 (61.90)	6 (15.38)	24 (61.54)	20 (16.67)	77 (64.17)
	No	22 (81.48)	8 (29.63)	27 (81.82)	12 (36.36)	18 (85.71)	8 (38.10)	33 (84.62)	15 (38.46)	100 (83.33)	43 (35.83)

\*Figures in Parenthesis indicate Percentage

### Nutrition's and Health Management

Table-2 shows that the results of pre and post intervention of technologies viz. animal health camp, training programme, advisory service and FLDs influenced the attitude of goat rearers towards the adoption of recommended technologies for goat husbandry. The proportion of farmers who vaccinate their animal was higher in Poyli (66.67 %) followed by Bhadroli (60.61%), Rangeetpura (58.97%) and Kharsaliya (57.14%). Overall 60.83% farmers adopted the vaccinate schedule. A total of 69.17% goat rearers followed the deworming practices but 30.83 per cent did not follow deworming owing to poor economic condition. The ecto-parasiticides were found to be severe in the study area even though only 20.83 per cent treat their animal against ecto-parasiticides regularly during pre intervention of technologies from KVK Panchmahals. After intervention of technologies 65.83 per cent farmers adopted ecto-parasiticides to treat their animals. Only 16.67 per cent concentrate feeding and 3.33 per cent and mineral mixture feeding were followed by the farmers in the study area during survey period, but after technologies intervention, the concentrate feeding raised 64.17 per cent and mineral mixture feeding 57.50 per cent owing the goat rearers by using efficient technologies and extension tools. The overall improvement in the attitude of the goats' rearers with respect to adoption of animal husbandry technologies would be possible through the demonstration of efficient technologies needed for healthy goat rearing which had not only created awareness but also improved the attitude of goat rearers in relation to scientific goat rearing practices. It results from the study that

the awareness regarding the available viable animal husbandry is essentially required to improve the productivity as well as socio-economic condition of the resource poor tribal farmers

### CONCLUSION

From the present study, it was concluded that the overall improvement in the attitude of the goats' rearers with respect to adoption of improved technologies related to goat production would be possible through the demonstration of efficient technologies needed for healthy goat rearing which had not only created awareness but also improved the attitude of goat rearers.

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