

# SOCIAL PROFILE OF CAMEL PASTORALISTS IN KUTCH DISTRICT OF GUJARAT

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## ABSTRACT

The present study was conducted on pastoralists in Kutch district of Gujarat. Total 74 families from 3 talukas *viz.* Lakhpat, Bhuj and Raper owning camels were selected on the basis of camel density. The quantitative and qualitative data were collected through structured interview schedule, observation and discussion. The findings revealed that majority of camel owners belonged to Rabari community (78.38%), medium level of family size (6.76), land holding with joint ownership of land and camel herd among family members (48.65%) and illiterate (96%). The animal husbandry was found to be either major family occupation in Lakhpat (54.17%) and Raper district (72%) whereas, mixed farming was the main occupation in Bhuj district (72%) because the land holding capacity of pastoralists in Bhuj district was higher than pastoralist of Lakhpat and Raper district. They also reared sheep, goat, cattle and buffalo along with the camel. The average size of camel herd, which they maintained by selected families was 40.74 out of which they maintained 6.17 young male, 0.59 adult breedable male, 12.27 young female and 21.70 adult breedable female indicated that they procure breedable male from other herds for mating in order to avoid inbreeding. The pastoralist migrated with their flock within the taluka (90.54%) in search of food and water. The adult or young camels were not provided any type of housing and forelegs of adults were tied and allowed to rest in open enclosures or open ground during night hours. The animals were allowed to rest during mid day in the grazing land some where near water spot without tying.

**Key words:** Camel pastoralist, Gujarat, Kutch, social profile

Camel raising has been a centuries old occupation of a vast majority of the population in desert and reared the camel on traditional way by utilising natural resources without any input and pastorals have a lot of knowledge about camel breeding, feeding, management and health practices (Rajput, 2001). It is the source of food winning for most of the house holds for the pastoralist of desert region hence, it is an important animal in the socio-economic system of Asia and Africa especially. Camel is unaccounted animal species in its qualities, for its valuable services with low inputs rendering to the human being in almost all types of environments with in the highly marginalised ecosystems. Keeping in view of all these facts, the present study was undertaken to highlight the existing social status of the camel breeders in their native tract.

## Materials and Methods

The Kutch is one of the border districts of Gujarat state and home tract of kutchi breed, lying between 22°C to 24°C latitudes and 68°C to 72°C longitudes. The climate of Kutch is categorised as semi-arid with extreme winter and summer. The monsoon is moderately dry with maximum

temperature rising upto 42°C. This is the largest district in Gujarat and the second largest district in India embracing 456 lakh hectares. The district is divided into 9 talukas *viz.* Adbasa, Anjar, Bhachau, Bhuj, Lakhpat, Mandvi, Mundra, Nakhartana and Raper. The district is sparsely populated and the density of population is only 28 persons per sq km which is the lowest in Gujarat. The survey work was conducted in 3 major thickly camel populated talukas of Kutch district *viz.* Lakhapat, Bhuj and Raper (Fig 1) covering 34 villages and 74 herds and 326 camels. The information regarding different aspect of social study was collected through an open questionnaire. The various data were compiled and analysed using frequency, simple percentage and mean.

## Results and Discussion

### Social group

The data of social group, family size, occupation, land holding, herd structure and migration are presented in table 1. The survey indicated that Rabaries were the major (78.38%) community of camel breeders in the Kutch followed by Muslims (16.22%), Rajput (4.05%) and schedule caste (1.33%).

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The Rabari community (100%) was the only camel breeders in Raper district where as it varied from 64 to 71.83% in Bhuj and Lakhpat Taluka, respectively. The migratory Muslims (25%) were from Pakistan settled in the Lakhpat and Bhuj districts. Surprisingly, few Rajput families also migrated from Pakistan adopted profession of camel breeding. The schedule cast (4.00%) was the only community adopting this profession in Bhuj district. Anonymous (1992) also reported that 80% camel population in kutch district was maintained by Rabaries. Khanna (1990), Rajput and Tripathi (2007), and Kumar and Yadav (2007) had also identified Raikas as the major community specialised in camel breeding in Rajasthan where as, Kohler-Rollefson (1992) recorded that few Rajput and Muslims also manage camels traditionally.

### Family size

The average family size of kutchi camel breeders was of  $6.78 \pm 0.35$ . The largest family size observed was in Bhuj (7.92) followed by Lakhpat (6.50) and Raper (5.96). The present findings are well in accordance with the findings of Saini *et al* (2006), who reported that majority of camel breeders had medium size family (6-8). The family constituted  $2.28 \pm 0.17$  adult male,  $1.95 \pm 0.13$  adult female and  $2.52 \pm 0.19$  children. The family structure of the camel breeders was more or less similar in all the 3 talukas of the district. Thus, the traditional camel breeders were having ideal family structure and size. Generally, the female members and children were used at the house and 1 or 2 adult male members accompanied their camel herds during grazing. However, very few (4%) traditional camel breeders hired paid male labours for their help during migration.

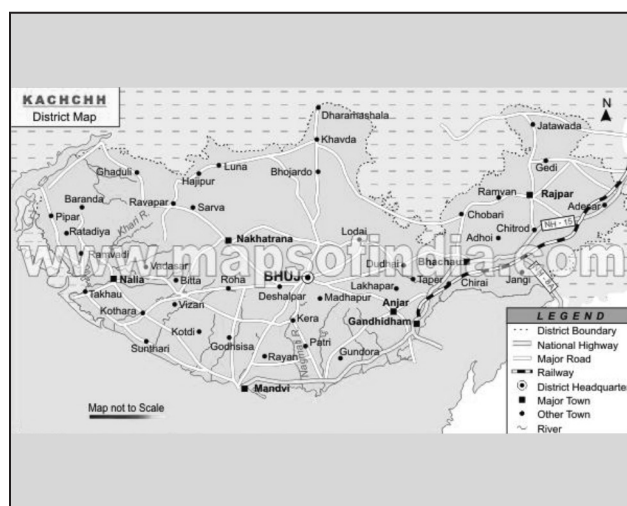


Fig 1. A map showing details of talukas of Kutch District. The dotted talukas were surveyed for the study.

### Housing for camel breeders

The conducted survey revealed that about 69% of the traditional kutchi camel breeders were having their own *pakka* houses and about 31% of the camel breeders were having their own hut like *kachcha* houses. The *pakka* house was generally built from stones or bricks with lime or mud.

### Literacy

Most of the traditional kutchi camel breeders (96%) were illiterate and very few traditional breeders had education either upto primary (2.70%) or secondary (1.35%) school level. The illiteracy might be one of the constraints in adopting scientific innovation in camel rearing. Raziq and Younas (2007) also reported that children of the camel breeders were deprived of getting education.

### Occupation

The camel rearing was not enough to support the family hence nearly 48.65% diverted towards the mixed farming and only 51.35% depend on animal husbandry. The majority of camel breeders (72%) of Raper and Bhuj (72%) generated income from animal husbandry and mixed farming, respectively because majority of landless keepers were high in Raper district where as, in Lakhpat district nearly 50% camel breeders generated their income from animal husbandry and mixed farming.

### Land holding

It was interesting to note that many of the traditional camel breeders in the district had an appreciable land holding. The traditional kutchi camel breeders (48.65%) were holding land and following farming where as, 51.35% camel breeders were landless. But on the basis of land holding capacity, camel breeders were grouped into big farmers (10.81%), small farmers (17.57%), marginal farmers (20.27%) and landless (51.35%). The majority of camel breeders were large, medium and small type in Lakhpat, Bhuj and Raper districts. Saini *et al* (2006) reported that majority of the farmer were medium type which confirm the findings of Bhuj district. The land holding of the camel breeders of Bhuj (72%) was higher than those of Lakhpat (45.83) and Raper talukas (28%). This was the main reason of camel breeder to rely more on animal husbandry activity in Raper district than Bhuj district. Kohler-Rollefson (1992) pointed out that the socio-economic frame work of camel breeders in Rajasthan was under going substantial trans-formation. The Raikas were gradually being forced out of their traditional occupation because of their landlessness.

**Table 1.** Social status of camel pastoralist in the Kutch district.

Sr. No.	Parameter	Taluka			Polled Average (74)
		LAKHPAT (24)	BHUJ (25)	RAPER (25)	
<b>A. Caste (%)</b>					
1	Rabari	71.83	64.00	100.00	<b>78.38</b>
2	Rajput	4.17	0.00	0.00	<b>04.05</b>
3	Muslims	25.00	24.00	0.00	<b>16.22</b>
4	Schedule cast	0.00	4.00	0.00	<b>01.35</b>
	<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>B. Family size (no)</b>					
1	Adult male	2.17 ± 0.23	2.52 ± 0.35	2.16 ± 0.27	<b>02.28 ± 0.17</b>
2	Adult female	1.90 ± 0.17	2.04 ± 0.24	1.92 ± 0.25	<b>01.95 ± 0.13</b>
3	Children	2.33 ± 0.24	3.36 ± 0.39	1.88 ± 0.28	<b>02.52 ± 0.19</b>
	<b>Total</b>	<b>6.38 ± 0.40</b>	<b>7.92 ± 0.78</b>	<b>5.96 ± 0.49</b>	<b>6.76 ± 0.35</b>
<b>C. Occupation (%)</b>					
1	Animal Husbandry	54.17	28.00	72.00	<b>51.35</b>
2	Mixed farming	45.83	72.00	28.00	<b>48.65</b>
	<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>D. Land holding (%)</b>					
1	Large farmer (>3 ha)	20.83 (45.45%)	12.00(16.66%)	00.00(00.00%)	<b>10.81</b>
2	Medium farmer (1-3ha)	12.50 (27.2%)	28.00 (38.88%)	12.00(42.85%)	<b>17.57</b>
3	Small farmer (<1 ha)	12.50(27.27%)	32.00 (44.44%)	16.00 (57.15%)	<b>20.27</b>
4	Landless	54.17	28.00	72.00	<b>51.35</b>
	<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>E. Herd structure (no)</b>					
1	Male				
	0-4 yrs	6.38 ± 1.14	6.04 ± 0.94	6.12 ± 1.17	<b>06.17 ± 0.62</b>
	Above 4 yrs	0.63 ± 0.10	0.56 ± 0.13	0.60 ± 0.12	<b>00.59 ± 0.07</b>
2	Female				
	0-4 yrs	12.67 ± 1.71	11.04 ± 1.79	13.12 ± 2.68	<b>12.27 ± 1.59</b>
	Above 4 yrs	22.42 ± 2.43	22.72 ± 2.75	20.00 ± 2.75	<b>21.70 ± 1.52</b>
	<b>Total</b>	<b>42.08 ± 3.88</b>	<b>40.36 ± 4.94</b>	<b>39.84 ± 5.79</b>	<b>40.74 ± 2.83</b>
<b>F. Migration (%)</b>					
1	Within talukas	91.67	96.00	84.00	<b>90.54</b>
2	Within district	00.00	00.00	16.00	<b>05.41</b>
3	Outside district	8.33	04.00	00.00	<b>04.05</b>

**Herd size and its structure**

The data pertaining to herd size is presented in table 2. The present survey indicated that about 72% of the traditional kutchi camel breeders were maintaining only camels in their herds and around 28% of the traditional camel breeders were maintaining other livestock along with camels in their herds like sheep, goats, cattle and buffaloes. The pattern of livestock holding by the camel breeders was more or less similar in the 3 talukas surveyed. The camel breeders (54%) either maintained camel population more than 50 animals or less than 20

animals where as, 46% of camel breeders maintained camel population between 21 to 50 animals. A survey was conducted by the NRCC, Bikaner on traditional camel management in the kutch district (Anonymous, 1992) and reported that the herd size of camel varied from small (5-15) to large (80-150) and a few herds having more than 500 camels were also encountered. The similar herd structure maintained by the traditional kutchi camel breeders was also surveyed in Lakhpat, Bhuj and Raper taluka of Kutch. The traditional camel breeders of Kutch district had, on an average 6.17 young male, 0.59 adult breedable male,

12.27 young female and 21.70 adult females making herd strength of 40.74 without much variation in the 3 talukas. It implies that each herd was having about 55% adult and 45% followers and small herd did not have stud camel for breeding their females. They had to depend on herd of neighbours or relatives for breeding purpose. The present finding was well supported by Anonymous (1992).

### Migration

All the 74 camel herds surveyed under present investigation migrated from their villages as a routine in search of feed and water. The 91% of the camel herds used to migrate within the taluka, 5% of the camel herds were migrating for grazing outside their taluka but within the Kutch district and few (4%) camel herds of the district used to migrate in other district of the state during lean months for grazing. These herds started migration after Diwali festival and reached upto Ahmedabad and kheda districts by about Holi festival in search of feed and water. These herds returned to their native pasture land of Banni area and did not prefer to migrate outside the taluka. The extent of migration by the kutchi camel breeders is thus limited. This might be due to sufficient browsing and /or grazing available in the district and also due to better pastoral skill of the camel breeders. Raziq and Younas (2007) observed seasonal migration in Suleiman region.

### Housing

The adult or young camels were not provided any type of housing. The forelegs of adults were tied and allowed to rest in open enclosures or open ground during night hours. The young animals were kept loose and they were resting with adults during night hours. Generally, an open flat and hard ground was preferred for resting. During monsoon season, slightly raised stony grounds were preferred. The animals were allowed to rest during mid day in the grazing

**Table 2.** Camel herd size maintained by the traditional breeders.

Herd size	No. of herds	Per cent
0-5	3	4.05
6-10	5	6.76
11-15	5	6.76
16-20	7	9.48
21-25	3	4.05
26-30	8	10.81
31-40	10	13.51
41-50	13	17.57
>50	20	27.03
<b>Total</b>	<b>74</b>	<b>100</b>

land some where near water spot without tying. A camel herd resting during day time. The observation of present study were in close agreement with the reports of Prajapati (1993), who noticed that camel keepers of rural area in Meshana and Sabarkantha district did not provide any special house/ shelter to their camels. The camels were allowed to rest in open yard. Evans and Powys (1989) and Wilson (1986) also reported that the camels of Central and southern Kenya were herded during the day and penned at night in open enclosures in the ranches. Kumar and Yadav (2007) also reported that no camel keeper constructed separate house for camels but they house them in the shed and open area as per seasonal needs and no specific houses are constructed for housing camel, because the camel has got adaptability to ambient temperature during extremes of the temperature.

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