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Utilization and marketing pattern of camel in arid zone of Rajasthan

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Abstract

The present study was done to investigate the general information about camels' utilization and marketing patterns. Two districts, Bikaner and Jaisalmer were selected purposively according to their camel population. Data were collected from 120 camel owners (60 from each district) of Rajasthan. The investigation revealed that the principal use of camels was in transportation (83.33%), farm operation (73.33%), and breeding (39.17%). About one-third of them rear the camel as a family status symbol. Some of the respondents especially in the Jaisalmer district, use camels in tourism, sports, or in hiring during festival or family functions. Camel was utilized mainly for transportation of farm produces, water supply, bricks, sand, and for family members to nearby cities or other villages. A majority (57.20%) of respondents agreed to sell live camels in recent years. They were selling the camels irrespective of their age, sex, and health. However, male and adult ones were preferred to sell or buy. Camel owners preferred the villagers (73.33%) to sell their camels. They also sold their camels to traders and in fairs. Need for money (67.50%) and maintaining herd size (32.50%) were two main reasons for selling camels. The price of adult camels was ranging between Rs. 15000-30000 for adults and Rs. 5000-10000 for the young calf. However, the majority of male camels got a better price than females. Selling and buying of camels drastically decreased in the study area and the camel's price is also reduced.

Keywords: Camel, eco-tourism, market, Rajasthan, traders, utilization

Introduction

Camel is important livestock species in the subsistence economy of rural pastoral communities (Aujla *et al.*, 2013) [3], particularly in arid and semi-arid lands (Field, 2005), but now it is facing severe challenges for sustenance and survival. Camels contribute to household food security through meat and milk (Ahmad *et al.*, 2010) [1], are used as pack animals for transport and provide household income through the sale of live animals, meat, milk, fat, and other by-products like hides (Mochabo *et al.*, 2005; Faye *et al.*, 2010; Aujla *et al.*, 2013) [10, 5, 3]. The utilization of camels' draught power is reducing but its use in eco-tourism is increasing significantly throughout the world. In southern Rajasthan, camels are also used for the production of milk. By 2012, the number of camels was down to 326,000, which fell to 213,000 by 2019 in Rajasthan. Now, with Just 250,000 camels across India (20th Livestock Census, 2019), a country that once had the third-highest population is not even in the top 10 among the 46 countries where camels are found. The world scenario reveals that people across the globe are very versatile and they make use of their race, milk, and meat production potential. Looking at the country-wise statistics 27 countries produce both milk and meat and 10 countries produce only meat. Nine countries, including India, have neither been listed as milk nor meat producing countries. However, in the state of Rajasthan and Gujarat camel milk is being sold in the market. This indicates that apart from the traditional use of camel as a draught species, it is being used at present as a producer of milk, meat, or both. It is reported that camel meat and milk are the two chief sources of animal protein to the weaker section of the world human populations. However, race and meat production potential do not have that much importance in this country but the milk production potential and eco-tourism have emerged as a tool to sustain the species *in situ*. (Mehta and Dahiya, 2017) [9]. Keeping the above points in mind this study was conducted in the desert area of Rajasthan to explore the utilization and marketing pattern of camels.

Research methodology

The present study was conducted in two purposively selected districts i.e., Bikaner and Jaisalmer

from the arid zone of Rajasthan based on a total number of camels. On the same basis, one tehsil was selected from each district.

Selection of villages

A comprehensive list of villages having camel population was prepared from both the selected tehsils of selected districts with the help of the animal husbandry department and other secondary sources. Four villages were selected randomly from each selected tehsil. Thus, a total of eight villages were selected from two districts.

Selection of respondents

A comprehensive list of families who possess at least one camel for their livelihood was prepared for each selected village with the help of Panchayat officials and villagers. Then from the prepared list, a total of 15 camel owners from each selected village were selected randomly as respondents for the study. Thus, a total of 120 camel owners who possess camels for their livelihood were selected as respondents for the present study.

A simple frequency distribution was used to identify the number of respondents distributed in different categories. The percentage was used to make a simple comparison of different categories.

Result and discussion

Camel utilization pattern

The data in Table (1) shows that camels were mainly utilized in transportation, carting, farm operation, and breeding. In the Bikaner district, the majority (91.67%) of respondents were using camels as means of transportation followed by farm operations (85%), breeding (25%) and as a family status (21.67%). Not a single respondent from the Bikaner district was using camel in tourism, sports and hiring during the wedding or other occasions. Whereas, in Jaisalmer district about 60 per cent of respondents were using camel in transportation and in farm operations followed by breeding (53.33%), family status symbol (38.33%), tourism (13.33%). Pooled data shows that transportation (83.33%) and farm operation (73.33%) were major utilization patterns of camel followed by breeding (39.17%) and family status symbol (30%). In Jaisalmer, some extent of respondents uses camel in tourism, sports or in hiring during festival or family functions. Generally, camels utilize for transportation of farm produces, water supply, bricks, sand and family members to nearby cities or other villages. These results also got support from the findings of Bhakat and Patil (2014) [4] who studied in Rajasthan and found that 91.30 per cent of respondents were having a favourable attitude towards the use of camels for agricultural operations.

Table 1: Distribution of respondents according to camel utilization pattern

| Sr. No. | Particular | Bikaner | Jaisalmer | Pooled |
|---------|----------------------|------------|------------|-------------|
| | | f | f | f |
| 1. | Transport | 55 (91.67) | 45 (58.33) | 100 (83.33) |
| 2. | Tourism | 0 | 8 (13.33) | 8 (6.67) |
| 3. | Breeding | 15 (25.00) | 32 (53.33) | 47 (39.17) |
| 4. | Sports | 0 | 1 (1.67) | 1 (0.83) |
| 5. | Farm operations | 51 (85.00) | 37 (61.67) | 88 (73.33) |
| 6. | Family status symbol | 13 (21.67) | 23 (38.33) | 36 (30.00) |

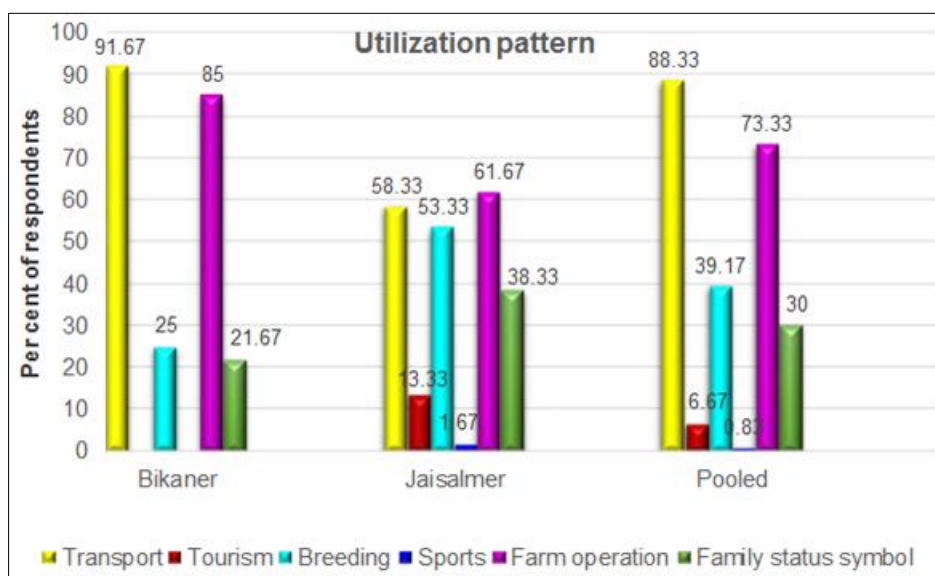


Fig 1: Diagrammatic representation of respondents according to utilization pattern of their camels

Camel marketing pattern

Table (2) reflected the existing marketing pattern of a camel. It shows that there was no organized camel market in both of the districts. None of the respondents was found selling camel milk and other products such as dung and hair. However, about 47 per cent of respondents in Bikaner and 68 per cent of respondents in Jaisalmer district reported that they have sold

live camels to other villagers in recent times. Asimwe *et al.* (2016) [2] also observed that produced milk is consumed by the household or given to neighbours when they lack milk or as gifts but is not commonly sold in the neighbourhood in Uganda.

Table (2) further shows that majority of respondents (50%) in Bikaner district and Jaisalmer district (45%) were having

preference to sell male camel in comparison to the female camel. About 72 per cent and 85 per cent of respondents were reported that they sold their camel between the age of 5 to 10 years in Bikaner and Jaisalmer districts, respectively. Hussain *et al.* (2013)^[7] also reported that the sale of live camels with a mean age of adult male was 8.3 years.

Results also revealed that other villagers (81.67%) in the village were the first choice for selling off their camel followed by livestock fair (13.33%) and traders (5%) in Bikaner district and other farmers in the village (65%), livestock fair (25%) and traders (10%) in Jaisalmer district. None of the respondents was reported selling camels to any government agency in both of the districts. Additional income for family livelihood was reported major reason for selling camels in Bikaner (86.67%) and Jaisalmer (48.33%) districts followed by maintaining camel herd size in Bikaner (13.33%) and Jaisalmer (51.67%) districts. Rajput and Tripathi (2005)^[11] also found that 68 per cent of Raika preferred purchase of camel from their village and Singh (2013)^[12] reported that 30.83 per cent of camel owners take their camels to various fairs for marketing.

In the case of the selling price of camel, it can be inferred from table (3) that the majority of respondents in Bikaner (63.33%) and Jaisalmer (75%) districts reported the price of adult male camel within the range of Rs. 15,000 to 30,000 per head. The price of an adult female camel was reported in the same range by about 85 per cent of the camel owners in both the districts. However, about 37 per cent in Bikaner and 25 per cent in Jaisalmer of respondents have reported the price of male camel above the Rs. 30,000 only. The price of female camels was reported in this range by about 18 per cent and 12 per cent of respondents in Bikaner and Jaisalmer districts, respectively. The selling price range of camel calf was reported between Rs. 5,000 to 10,000 per head by 90 per cent of respondents in both of the districts. The maximum selling price for a male camel was reported at about Rs. 40,000, whereas for female camel it was about Rs. 32,000. Rajput and Tripathi (2005)^[11] also reported that the average selling price of male, female and camel calf was around Rs. 12500, 10500 and 6900, respectively. Respondents reported that the price of the camel is drastically reduced from last decade because the demand for camel is not even one-fourth of 10 years ago.

Table 2: Distribution of respondents according to existing camel marketing pattern

| Sr. No. | Parameter | Bikaner | | Jaisalmer | | Pooled | |
|--------------------------------|------------------------------------|------------|------------|------------|------------|------------|------------|
| | | Yes | No | Yes | No | Yes | No |
| 1. | Selling of camel (In last 2 years) | 28 (46.67) | 32 (53.33) | 41 (68.33) | 19 (31.67) | 69 (57.50) | 51 (42.50) |
| A. Sex of selling camel | | | | | | | |
| 1. | Male | 30 (50.00) | | 27 (45.00) | | 57 (47.50) | |
| 2. | Female | 8 (13.33) | | 8 (13.33) | | 16 (13.33) | |
| 3. | Both | 22 (36.67) | | 25 (41.67) | | 47 (39.17) | |
| B. Age of the camel at selling | | | | | | | |
| 1. | Below 5 years | 15 (25.00) | | 5 (8.33) | | 20 (16.67) | |
| 2. | 5-10 years | 43 (71.67) | | 51 (85.00) | | 94 (78.33) | |
| 3. | Above 10 years | 2 (3.33) | | 4 (6.67) | | 6 (5.00) | |
| C. Choice of buyers | | | | | | | |
| 1. | Villagers | 49 (81.67) | | 39 (65.00) | | 88 (73.33) | |
| 2. | Traders | 3 (5.00) | | 6 (10.00) | | 9 (7.50) | |
| 3. | Fair | 8 (13.33) | | 15 (25.00) | | 23 (19.17) | |
| D. Reason for selling camel | | | | | | | |
| 1. | For income | 52 (86.67) | | 29 (48.33) | | 81 (67.50) | |
| 2. | To maintain herd size | 8 (13.33) | | 31 (51.67) | | 39 (32.50) | |

Table 3: Distribution of respondents according to the price of camel

| Sr. No. | Price of camel (in Rs.) | Bikaner | Jaisalmer | Pooled | |
|---------|-------------------------|-----------------|------------|------------|-------------|
| 1. | Camel's calf | 5,000- 10000 | 52 (86.67) | 56 (93.33) | 108 (90.00) |
| | | Above 10000 | 8 (13.33) | 4 (6.33) | 12 (10.00) |
| 2. | Adult camel (female) | 15,000 - 30,000 | 49 (81.67) | 53 (88.33) | 102 (85.00) |
| | | Above 30,000 | 11 (18.33) | 7 (11.67) | 18 (15.00) |
| 3. | Adult camel (male) | 15,000 -30,000 | 34 (63.33) | 41 (75.00) | 75 (70.00) |
| | | Above 30,000 | 26 (36.67) | 19 (25.00) | 45 (30.00) |

Conclusion

Camels were found utilizing mostly in transportation and farm operations. The finding also reflected that other means of camel utilization i.e., riding, sports, outing during wedding ceremonies were negligible. It is recommended that for enhancing the economic status of camel owners need to provide training and awareness for maximum potential utilization of this unique species. It would be beneficial for camel owners to increase economic status as well as for camel for its sustainable existence. The findings concluded that trading of the camel, as well as camel products, was as an unorganized market system. There is a need of an intervention by government agencies to provide regular markets to camel owners for maximum benefits. There is an urgent need to pay

attention and develop a suitable strategy/ policy to increase pasture land and search for alternate means of camel utilization. That would be an effective measure for consistent utilization of camel potential as well as the existence of survival of this valuable species.

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