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A SOCIOLOGICAL STUDY ON NOMADIC DONKEY REARING IN TAMIL NADU

P. Athilakshmy[1*], C. Manivannan[2], N. Vimal Rajkumar[3], N. Kumaravelu[4] and G. Kathiravan[5]

Department of Veterinary and Animal Husbandry Extension Education
Madras Veterinary College
Tamil Nadu Veterinary and Animal Sciences University
Chennai, Tamil Nadu, India

ABSTRACT

The socioeconomic importance of nomadic donkey rearing, perception on health benefits of donkey milk and the marketing channels involved remain unexplored. This paper aims at providing details on nomadic donkey rearing, a traditional system prevailing in Tamil Nadu. Donkey played a significant role in the livelihood of its owners who had migrated throughout Tamil Nadu for selling donkey milk. They traversed around 30 – 40 km per day to sell the donkey milk besides meeting the grazing needs of the donkeys. Majority of the nomadic donkey rearers were young to middle aged and were scheduled tribes. Two third of the respondents were involved in nomadic donkey rearing for nearly eight months in a year and for the remaining four months they earned their livelihood as agricultural labourers. The study revealed that on an average, lactating jenny yield milk for six months. At the end of the lactation period, the donkey rearers sold the dry jenny to the traders and in turn purchased the lactating jenny from them. The nomadic donkey rearers believed that the donkey milk had medicinal benefits to cure ailments such as ulcer, indigestion, pneumonia, jaundice, leukorrhea and hypernatremia. The respondents preferred institutional support in marketing donkey milk so that they could settle in one place and thrive better.

Keywords: Nomads, Donkey, Donkey Milk, Marketing channel, Constraints

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[1]Assistant Professor, * Corresponding author
Email id: drathiselvam@gmail.com
[2]Professor, Department of Veterinary and Animal Husbandry Extension Education
[3]Associate Professor and Head, Farmers Training Centre, Theni
[4]Dean, CFDT, Koduvalli, Chennai
[5]Professor and Head, Dept. of Animal Husbandry Statistics and Computer Applications

INTRODUCTION

Nomadic pastoralism is an age-old traditional system and a livelihood option prevailing in different parts of the world. In Indian context, pastoralists are defined as members of caste or ethnic groups with a strong traditional association with livestock

keeping; where, a substantial proportion of the group derive (over 50% of household consumption) from livestock products or their sale, and where over 90% of animal consumption is from natural pasture and where households are responsible for the full cycle of livestock breeding (Sharma *et al.,* 2003). The number of pastoralists in India are around 13 million and 46 caste or communities had specialized pastoralist identities (Kishore and Kohler-Rollefson, 2020). Some of the famous pastoralists communities in India are Golla, Ghosi, Bharwad, Changpa, Monpa, Brokpa, Raika, Bakarwal, Charan, Aahir, Kuruba, Dhangar, Toda and Gujjars (Meena *et al.,* 2019). Animals reared by nomadic pastoralists include cattle, buffalo, sheep, goats, camels, yaks, ducks, guinea fowls, pigs, horses and donkeys. The documentation about nomadic pastoralist communities are less in number and especially scanty in Southern India (Sharma *et al.,* 2003). There are research works on documentation of nomadic pastoralists rearing Toda buffaloes (Kamaladevi, 2022), sheep (Singaravadivelan *et al.*, 2014) and ducks (Tamizhkumaran and Rao, 2013) in Tamil Nadu and Puducherry. However, a sect of nomads in Tamil Nadu whose livelihood option is donkey rearing, remain hidden and is not been documented yet. In this backdrop, a sociological study on nomadic donkey rearing in Tamil Nadu was made to document the lifestyle of nomadic donkey rearers and management of donkeys by them.

METHODOLOGY

A descriptive research design was framed with an objective to analyze the socioeconomic characteristics of nomadic donkey rearers in Tamil Nadu. The study was carried during 2022 and 2023 in Tamil Nadu. The data were collected from 33 nomadic donkey rearers using snow ball sampling technique. A pre-tested interview scheduled was used to collect data from the respondents.

The data pertaining to socioeconomic characteristics of the nomads and the management practices followed in donkey rearing were statistically analyzed and interpreted by means of frequency and percentage analysis. To identify the degree of constraints faced by nomadic donkey rearers three-point continuum scale was used and scores of 3, 2 and 1 were assigned for severe constraint, constraint and not a constraint, respectively. The constraints faced by the nomadic donkey rearers were enlisted and ranked based on weighted mean score (Meena *et al.,* 2018, Saravanan *et al.,* 2021).

$$\text{Weighted mean score} = \frac{\text{Total score obtained of all members in each item of constraints}}{\text{Total maximum possible score for each item of constraints}} \times 100$$

RESULTS AND DISCUSSION

Socioeconomic characteristics of nomadic donkey rearers in Tamil Nadu

The socioeconomic characteristics of nomadic donkey rearers are presented in Table 1. It could be inferred from Table 1 that nearly

80 per cent of the respondents belonged to young and middle age category. The nomadic donkey rearers on an average traversed around 30 km per day to sell the donkey milk. As the old people were not able to move a longer distance, they got relieved from nomadic donkey rearing. It was difficult to sell donkey milk throughout the year and hence nearly two - third of donkey rearers were involved in nomadic donkey rearing for eight months in a year and for the remaining four months they earned their livelihood as agricultural labourers. The respondents reported that during the harvest season, they stayed back in their native village as they got sufficient employment as agricultural labourers.

It could be further divulged from Table 1 that 100 per cent of the nomadic donkey rearers belonged to scheduled tribe. The respondents reported that they belonged to Malakuravan caste. According to Iyer (1937) and Simon-John (2018), the Kuravans in Kerala consisted of two sections, one living in the jungles named as 'Malakuravan' and the other, in the plains was the ordinary Kuravan. They also divulged that from the very early times, there had been a constant migration of the Malakuravan from the jungles to the plains. Nomadic donkey rearing was one of their inbuilt traditional occupations.

In spite of several hardships, nearly 60 per cent of the respondents had primary to middle school level of education. The youngsters were involved in nomadic donkey rearing at the early stage of their life and hence they discontinued education. The respondents reported that they were interested to send their next generation to higher studies, if they were given marketing linkage to sell the donkey milk from their villages. The donkey rearers were worried of their children's safety if they were left alone and hence, they had no other choice than to take their children along with them for selling donkey milk and hence they discontinued education.

Nearly 70 per cent of the respondents reported that they belonged to medium sized families. Half of the respondents were migrating with their family for selling donkey milk. Though majority of the respondents owned 3 – 4 donkeys, they took one or two lactating donkeys with foals for selling donkey milk. Further, 85 per cent of the respondents had medium to high experience in nomadic donkey rearing.

With respect to the earnings from sale of donkey milk nearly 79 per cent of the respondents earned around Rs.75,000 to Rs.1,00,000 per annum from donkey rearing. They sold 30 ml of donkey milk for Rs.100/- . The quantity of donkey milk sold per day differed based on the demand for donkey milk, location and season. The respondents reported that sometimes they were able to earn Rs.800/- per day and some days they returned with empty hands.

Nomadic pathways

The nomadic donkey rearers along with one or two lactating donkeys with foals migrated throughout the state for selling donkey milk. The nomadic pathway was

based on demand for donkey milk, lush pasture availability, season and competition. Two or three families coalesced and migrated in a direction for five to six months. If one of the migrating families travelled back to their native place, they left the donkeys under the care of other two migrating families. The migrating families carried essential household items for cooking. They followed different nomadic pathways such as Trichy to Bengaluru via Salem, Krishnagiri, Hosur; Thoothukudi to Nagercoil via Thiruchendur, Kanyakumari; Madurai to Pudukottai via Karaikudi. These pathways were known to the nomads and the knowledge passed down from parents to children so that each family's descendants knew their pathways. One of the nomadic pathways followed by the respondents is illustrated in the Figure 1. They started at Palani and travelled via different villages and reached Thanjavur in six months.

Management of donkeys

The nomadic donkey rearers fed 1- 2 kg of bran to the lactating donkeys per day. The animals were thriving mostly on grazing. As the habitat and nutrition of nomadic donkey rearers was poor and malnourished, feeding a balanced diet to donkeys was unaffordable to them. Moreover, it could be inferred from Figure 2 that, cent per cent of them were unaware of the importance of anti-rabies vaccination and tetanus toxoid vaccination for donkeys. The reason behind this scenario was that they were unaware of important diseases infecting donkeys. Hence, it is need of the hour to disseminate awareness among nomadic donkey rearers in Tamil Nadu on the prevention and control of important diseases infecting donkeys such as Rabies, Tetanus, Strangles and Glanders.

Marketing network of nomadic donkey rearing

The marketing network of nomadic donkey rearing is depicted in Figure 3. The respondents reported that on an average the lactating jenny would yield milk for six months. At the end of the lactation period, the nomadic donkey rearers sold the dry donkey to the middlemen. The middlemen in turn sold the donkey to the breeders in other parts of Tamil Nadu and other states of India. The respondents paid around Rs.15,000 more to purchase a lactating donkey with foal as a replacement stock. Thus, a type of contract was involved in the marketing of replacement stocks. Some of the respondents, maintained breeding stock in their village and hence based on the need they replaced the dry donkeys with their breeding stock.

Traditional belief on donkey milk, urine and faeces

All the respondents invariably strongly believed that donkey milk was used as a health supplement in curing diseases such as ulcer, indigestion, pneumonia, jaundice, hypernatremia and leukorrhea in human beings. They also reported that the raw donkey milk was consumed in empty stomach to cure various ailments. As a folk custom, the donkey milk was also used as immunity booster in new born babies. Zhang *et al.* (2008) stated

Table 1. Socioeconomic characteristics of nomadic donkey rearers in Tamil Nadu (N=33)

Socioeconomic parameters	Frequency (f)	Percentage (%)
Age		
Young (≤35 years)	16	48.48
Middle (36-50 years)	11	33.34
Old (>50 years)	6	18.18
Occupation		
Donkey rearing alone	09	27.27
Donkey rearing and agricultural labourer	24	72.73
Community		
Scheduled tribe	33	100.00
Educational qualification		
No formal education	12	36.36
Primary education	15	45.46
Middle school	06	18.18
Family size		
Small (1 to 3)	01	3.03
Medium (4 & 5)	23	69.70
Large (6 and above)	09	27.27
Herd size		
Small (≤ 2)	06	18.18
Medium (3 – 4)	23	69.70
Large (≥ 5)	04	12.12
Experience		
Low (<10 years)	05	15.15
Medium (11 to 20 years)	12	36.36
High (21 years and above)	16	48.49
Annual income from donkey rearing		
Low (< Rs.74749)	07	21.21
Medium (≥ Rs.74749 - ≤ Rs.106985)	19	57.58
High (> Rs.106985)	07	21.21
Mean:Rs. 90867 SD: Rs.16118		
Total	**33**	**100.00**

Fig. 1. An example of pathway followed by the nomadic donkey rearers

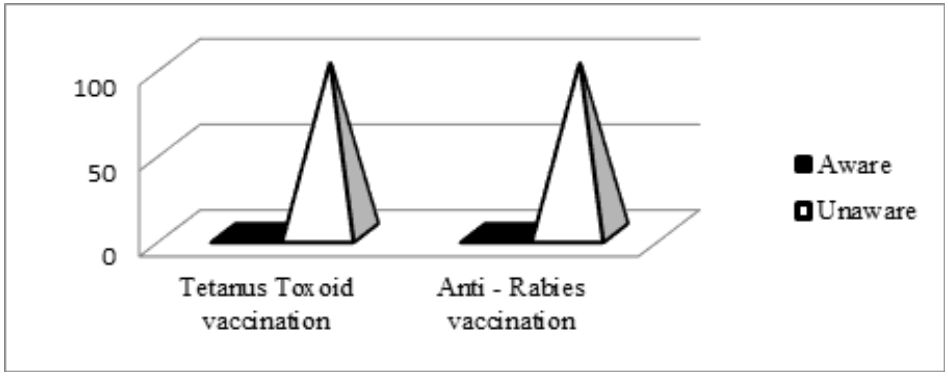

Fig. 2. Awareness level on vaccination of donkeys

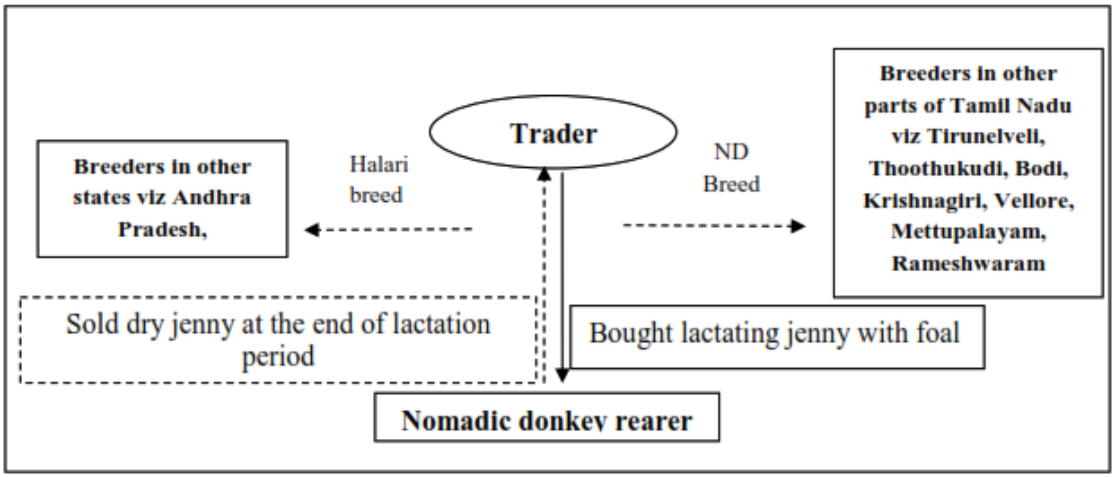

Fig. 3. Marketing network of nomadic donkey rearing

Fig. 4. Nomadic donkey rearers of Tamil Nadu

Table 2. Constraints faced by the nomadic donkey rearers

SI. No.	Constraints faced by the nomadic donkey rearers	MPS	Rank
1	No institutional support in marketing donkey milk	97.98	I
2	Donkey price inflation	95.96	II
3	Difficulty in getting school education as a nomad	83.84	III
4	No due recognition as Scheduled Tribe by Institutions	81.82	IV
5	Unawareness about vaccination of donkeys	75.76	V
6	Internal competition in the sale of donkey milk	60.61	VI
7	Diseases in donkeys	46.46	VII

that donkey milk had the inhibitory effect against several bacterial species, especially on *S. dysenteriae*, ascribed to the natural antimicrobial substances mainly the high concentration of lysozyme in the milk. It could be inferred from Li *et al.* (2021) research that, the donkey milk and related products activated the antioxidant system, enhanced immune function and maintained the balance of intestinal flora both in *in vitro* and *in vivo* models. Garhwal *et al*. (2023) reported that donkey milk had low fat (0.86 %), protein (2.03 %) and ash (0.51 %) contents and high lactose (5.75 %) content compared to that of human milk. The studies on clinical validation of these claims are scattered and need further consolidation.

In addition to donkey milk, donkey urine and faeces were also perceived to have medicinal benefits. Donkey urine was mixed with alcohol and consumed. It was perceived as to be a treatment for alcohol addiction. Donkey faeces was dried, heated and used in hot fomentation to relieve cold. No supportive evidences could be found and hence the belief needs validation.

Constraints faced by the nomadic donkey rearers

The constraints faced by the nomadic donkey rearers are enlisted and ranked in the Table 2. 'No institutional support in marketing donkey milk' was ranked as prime most constraint. The nomadic donkey rearers had vast experience in donkey rearing and it was the traditional occupation for that sect. Hitherto, they could not obtain institutional support in marketing donkey milk and hence they were nomadic in search of market for donkey milk. They were longing for institutional support in marketing donkey milk, so that they could be able to market the donkey milk in one settled place.

The second ranked constraint was 'hike in donkey price' in recent years due

to the establishment of donkey farms. The respondents reported that the price of donkeys was so high that the profit margin got reduced. On the contrary, Kumaravel *et al.* (2022) reported that theft of donkeys and decreased demand for donkeys due to modernization was the major constraints of donkeys rearers in Tamil Nadu. The present study portrayed the constraints faced by nomadic donkey rearers which differed from that of other donkey rearing communities in Tamil Nadu.

The third constraint reported by nomadic donkey rearers was 'difficulty in getting school education as a nomad'. They stated that due to safety and security reasons they took their children especially girl children as nomads along with them for selling donkey milk. Wani *et al*. (2019) documented that poor education / medical facility as one of the constraints of nomadic tribes in Jammu and Kashmir. 'No due recognition as Scheduled Tribe by Institutions' was ranked as fourth constraint. They were worried that they were not recognized as Scheduled Tribe by government and they were striving hard for their recognition and benefits over many decades (Simon-John, 2018, Jayalakshmi, 2019).

'Unawareness about vaccination of donkeys' was ranked as fifth constraint. They were unaware of basic vaccination schedule of donkeys such as Tetanus Toxoid and Anti Rabies vaccination. They were deprived of government and non-governmental organizations support in vaccinating donkeys. This is in agreement with Kumaravel *et al.* (2023) who reported high incidence of tetanus in donkeys in Tamil Nadu. 'Internal competition in the sale of donkey milk' was ranked as sixth constraint by the respondents. Though the nomads had internal agreement not to interfere in others migration route, sometimes they had conflicts due to competitions in the sale of donkey milk. The respondents reported that donkeys were disease resistant animals and very rarely they encountered diseases in them. Thus, disease in donkeys was ranked as the least constraint by the nomads.

CONCLUSION

The present study was conducted to analyze the nomadic pattern of donkey rearing, perception on health benefits of donkey milk, marketing channel involved and constraints faced by them. Malakuravan community was involved in nomadic donkey rearing in Tamil Nadu. They travelled a long distance every day to market the donkey milk. They were in need of institutional support to market the donkey milk in a settled place. As some of the entrepreneurs have started establishing donkey farms and exporting donkey milk to foreign countries, these nomadic donkey rearers expect financial help to start donkey farms in their hometowns. Hence, it is high time to analyse the pros and cons of establishing donkey farms in order to help this sect. Further, institutionalizing the donkey farming through Farmers Producer Organization, Cooperative farming and e- commerce is the need of the hour.

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