



## Challenges and Scope of Camel Rearing in Rajasthan: A Comprehensive Overview

(\*Dr. Gagan Chawla<sup>1</sup>, Dr. Balwant Kumar<sup>2</sup> and Manisha Choudhary<sup>3</sup>)

<sup>1</sup>MVSc, Department of Veterinary Physiology, National Dairy Research Institute, Karnal, Haryana, India

<sup>2</sup>Assistant Professor, Sri Ganganagar Veterinary College, Tantia University, Sri Ganganagar, Rajasthan, India

<sup>3</sup>PhD Scholar, Animal Biotechnology, National Dairy Research Institute, Karnal, Haryana, India

\*Corresponding Author's email: [itsgaganchawla@gmail.com](mailto:itsgaganchawla@gmail.com)

Camel rearing has historically been a significant aspect of Rajasthan's economy, particularly among the nomadic and pastoral communities. Known as the “Ship of the Desert,” camels are well-suited for Rajasthan's arid climate. Over time, their role has expanded beyond transportation and draught power to include their milk, meat, and other byproducts, which are gaining attention for their nutritional and medicinal benefits. However, despite its potential, camel rearing in Rajasthan faces several challenges that threaten its sustainability. This article explores both the challenges and future scope of camel rearing in the state, focusing on new data and emerging trends.

### Challenges of Camel Rearing in Rajasthan

- 1. Declining Camel Population:** One of the most critical issues is the steep decline in the camel population. According to the 20th Livestock Census of India (2019), Rajasthan's camel population decreased by 34.69% from 2012 to 2019. Factors such as mechanization, reduced demand for draught animals, and migration of pastoralists contribute to this decline. Camels, once a symbol of desert survival, are being replaced by motorized vehicles and other livestock that provide more economic returns.
- 2. Changes in Grazing Land Availability:** Rajasthan's grazing lands, vital for camels, are shrinking due to urbanization, agriculture, and industrial expansion. Historically, pastoralists had access to large tracts of common land for grazing. However, encroachment by other forms of development has reduced the availability of these resources, making it harder for camel rearers to sustain their herds. The shrinking pastureland has led to overgrazing in available areas, further degrading the ecosystem.
- 3. Shift in Pastoralist Lifestyle:** Another challenge comes from the changing lifestyle of traditional camel-rearing communities. Pastoralism, which involves moving herds to different areas based on seasonal availability of water and fodder, is becoming less viable due to administrative and territorial restrictions. Young members of these communities are also shifting toward other professions, leaving the camel-rearing tradition under threat.
- 4. Low Economic Incentives:** The traditional uses of camels, such as transportation, have become less relevant in the modern economy. Furthermore, camel milk, though rich in nutrients, has not gained widespread commercial acceptance, partly due to limited awareness and distribution channels. Despite the documented benefits of camel milk, including its

hypoallergenic properties and its use in managing diabetes, there is a lack of infrastructure for its large-scale production and marketing.

**5. Disease Management and Veterinary Support:** Camel rearing in Rajasthan is also challenged by the lack of specialized veterinary care and disease management services. Camels, though hardy, are prone to certain diseases, including trypanosomiasis and mange. The limited availability of veterinary experts familiar with camel-specific ailments adds to the complexity of managing camel herds effectively.

### Scope of Camel Rearing in Rajasthan

**1. Camel Milk as a Superfood:** Recent studies have brought camel milk into the spotlight as a superfood due to its high nutritional value. It is rich in vitamins, minerals, and immunoglobulins, making it beneficial for people suffering from malnutrition and autoimmune disorders. The Food Safety and Standards Authority of India (FSSAI) has also recognized camel milk as a valuable product, opening up avenues for its commercialization. The milk's potential to cater to niche markets such as those for lactose-intolerant individuals or those with dairy allergies could enhance its demand both locally and globally.

**2. Sustainable Livelihoods for Marginal Communities:** For Rajasthan's marginal communities, particularly those in arid and semi-arid regions, camel rearing offers a sustainable livelihood option. The government, along with NGOs, has launched initiatives to revive camel husbandry by providing training and financial support. Programs such as the Rajasthan Camel Development Scheme aim to incentivize pastoralists by promoting camel-based products, including wool, leather, and dung for organic farming.

**3. Ecotourism and Cultural Heritage:** Camel safaris are a major tourist attraction in Rajasthan, particularly in areas like Jaisalmer and Bikaner. There is significant scope for expanding this industry by integrating camel rearing with ecotourism. Offering tourists an immersive experience into the pastoral lifestyle could serve as a sustainable revenue stream for camel owners. Furthermore, camels hold a deep cultural significance in Rajasthan's festivals, particularly during the Pushkar Fair, which attracts thousands of tourists annually.

**4. Research and Innovation in Camel By-products:** Beyond milk and meat, camels provide a range of by-products that have yet to be fully exploited. Camel wool is lightweight, warm, and hypoallergenic, offering a sustainable alternative to synthetic fibres. Camel leather is also durable and eco-friendly, suitable for high-end leather products. Additionally, camel dung can be utilized as a bio-fuel or organic fertilizer, contributing to sustainable farming practices in desert regions.

**5. Climate Change Resilience:** As climate change accelerates, Rajasthan's arid and semi-arid regions will likely face harsher conditions. Camels, with their innate ability to survive in extreme heat and limited water, represent an ideal species for climate-resilient livestock systems. Promoting camel rearing could help the state build a more sustainable agricultural model, particularly as other livestock may struggle to adapt to changing environmental conditions.

### Government Initiatives and Future Prospects

The Rajasthan government, recognizing the critical role camels play, declared the camel the state animal in 2014. In 2016, the state passed the Rajasthan Camel (Prohibition of Slaughter and Regulation of Temporary Migration or Export) Bill, making camel slaughter illegal and regulating their movement outside the state. While well-intentioned, these measures must be supplemented with economic incentives, improved market linkages, and enhanced veterinary services. Efforts to create a camel milk market in Rajasthan are also gaining traction. The Rajasthan Cooperative Dairy Federation (RCDF) has taken initiatives to set up camel milk collection centres and collaborate with companies like Amul to sell camel milk products.

## Conclusion

Camel rearing in Rajasthan is at a crossroads. While the sector faces numerous challenges, including a declining population, reduced grazing lands, and socio-economic shifts, there is also immense scope for revival. By capitalizing on the nutritional value of camel milk, promoting camel-based tourism, and enhancing the economic value of by-products, Rajasthan can ensure that camels remain integral to the state's rural economy. A balanced approach that combines traditional knowledge with modern innovations can help sustain camel rearing as a viable livelihood option, especially in the face of climate change and economic challenges.