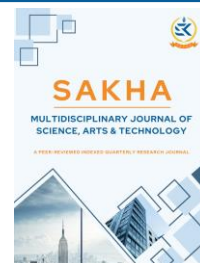




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Teni Hill Cattle: An Ethno-Cultural and Ecological Investigation in the Western Ghats

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Abstract

Theni hill cattle are an important indigenous cattle breed reared in the Western Ghats region. They are predominantly found in areas such as Bodinayakanur, Uthamapalayam, Cumbum, Gudalur, Chinnamanur, and Meghamalai. These cattle play a significant role in the socio-economic and cultural life of the region. To distinguish cattle belonging to different herds, identifying marks are made on their faces. Theni hill cattle are traditionally reared under a free-grazing herd system. This study examines the indigenous knowledge systems of herders involved in Theni hill cattle rearing, with particular focus on mountain camping practices, traditional veterinary methods, herd management techniques, ecological adaptations, and the informal trust-based economic arrangements that sustain this pastoral system.

Keywords: *Theni hill cattle – western ghats – ecology – trust-based economy – pastoral community – Indigenous knowledge system (IKS).*

Introduction

The Teni hill cattle, among the contemporary cattle population which play a crucial role in understanding human–animal relationships in South India. These cattle are predominantly distributed across regions such as Bodinayakanur, Uthamapalayam, Cumbum, Gudalur,

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Chinnamanur, and Meghamalai of the Western ghats (Fig. 01). In these regions, Teni hill cattle occupy a significant place in both cultural practices and economic production activities. Notably, hill cattle hold a distinct position among livestock donations made to temples.

Konar, Chettiyar, Devar, Thotti nayakkar, Okkaliga Goundar, and Kambalathu Nayakkar communities are actively involved in the rearing and management of Teni hill cattle. These cattle are not reared in close proximity to households instead, they are raised using the *kīdai* (herd) system in locations situated away from residential settlements. In the rearing of hill cattle, the intellectual skill and experiential knowledge of the cattle keepers are expressed in nuanced ways. While grazing cattle in hilly terrains, practices such as tying bells around the necks of cattle and constructing 'Thandhalam' (தந்தலம்) (temporary cattle herd in hill terrain) are followed to ensure their protection. These practices reveal the herders' understanding of local ecology. Furthermore, when cattle are taken for collective grazing, family-specific symbols are marked on the faces of the cattle in order to identify animals belonging to individual herd. These markings serve multiple purposes, they function as identifiers, offer protection against disease, and in certain contexts, fulfil aesthetic objectives. This study examines Teni hill cattle and the herders who rear them, with particular attention to their socio-economic life, cultural practices, and indigenous knowledge systems.

Previous Studies

Karthickeyan (et al., 2019), based on molecular characteristics, classified Teni hill cattle as a distinct cattle breed. Selvan (et al., 2021), using karyotype profiles and cytogenetic molecular data, clearly established that Teni hill cattle belong to the *Bos indicus* category. Subsequently, Selvan (et al., 2022) conducted a morphometric assessment of Teni hill cattle and carried out a comparative analysis with other indigenous dwarf cattle breeds of South India, thereby highlighting the morphological significance of this breed. Selvam (et al., 2023) discussed the economic importance of Teni hill cattle and emphasized the need for conserving regional cattle breeds. Priyadharsini (et al., 2024) examined the rearing practices of Teni hill cattle using statistical and socio-economic parameters. Satheeshkumar (et al., 2024a), on the basis of haemoglobin levels in the blood of Teni hill cattle, explained the biological differences between bulls and cows. He further noted that bulls are environmentally adaptive and suitable for cultural events such as 'Jallikattu' (bull taming) and bullock cart races, while cows are more suitable for breeding purposes. Satheeshkumar (et al., 2024b), through a focused study on Teni hill cattle, identified the factors contributing to the decline in the bull population in India.

Using research frameworks such as Livelihood Impact Assessment (LIA) and Social Return on Investment (SROI), the study elucidated the ecological and economic factors responsible for this decline. Gokulakrishnan (et al., 2025), based on seasonal variations, examined the fat and protein content in the milk of Teni hill cattle.

However, the existing studies do not adequately address the traditional knowledge systems of the herders and their methods of selecting grazing landscapes. They also fail to explain the economic relationships between cattle owners and the herders.

Origin of the Name Teni Hill Cattle

Since these cattle are reared primarily for grazing in hilly terrains, they are commonly referred to as “hill cattle.” Interpreting a cultural phenomenon through an ecological lens is of particular importance. In this context, Teni hill cattle are predominantly found in the regions of the Western Ghats, especially in the areas surrounding Teni district.

Desirable Physical Traits of Cattle

The desirable traits of Teni hill cattle include the following characteristics:

1. A raised tail
2. Thin skin,
3. Compact bone structure,
4. Well-set horns,
5. Fox-like facial features,
6. Absence of a prominent dewlap,
7. Short legs, and
8. Minimal body hair.

Identifying Features of Teni Hill Cattle

Teni hill cattle are reared within a cultural framework that follows the herd system. In order to distinguish cattle belonging to individual herd, specific identifying marks are employed (Fig. 03). These marks are generally applied on the facial region or the thigh of the cattle. Such identifying symbols often represent the lineage or familial insignia of the cattle owner. These

markings not only assist in identifying individual animals but are also regarded as a preventive measure against the spread of diseases. Additionally, these marks are sometimes considered from an aesthetic perspective. Such branding is not applied to fully grown cattle but is limited to young calves. However, in situations involving disease outbreaks, the practice of branding adult cattle is also observed. In this manner, Teni hill cattle are distinguished by unique branding symbols specific to each herd.

Colour patterns and anatomical features play a significant role in identifying regional cattle breeds. In this context, the presence of black and red patches on the skin of Teni hill cattle serves as a key identifying feature. Based on these colour variations, the cattle are locally distinguished using names such as Karumpuru (black patches) and Sempuru (red patches)

Calves

In order to ensure the development of a strong physical constitution, Teni hill cattle calves are provided with unrestricted access to their mother's milk from the day of birth. At the time of birth, these calves are reddish-brown in colour (Fig. 04). Approximately three hilly terrains, the body smells of newly born calves attract wild animals such as tigers. This situation poses a serious threat to the safety of both the calves and the herders. In such contexts, mother cows exhibit a protective instinct by sensing the presence of predators and concealing their calves in safe locations. As a result, locating the calves and bringing them into enclosures becomes a challenging task for the herders. According to herders, calves emerge from their hiding places only after recognizing the voice or call of the mother cow. These behavioural patterns are cited by herders as evidence of the high level of intelligence, strategic behaviour, and ecological adaptability exhibited by Teni hill cattle.

Tooth Development

Herders note that the development of teeth in Teni hill cattle varies according to seasonal conditions. During periods of drought, when cattle graze close to the ground, their teeth come more rapidly. Conversely, in seasons with abundant grazing resources, the availability of plentiful fodder allows the teeth to develop fully over a longer period. This observation reflects the herders' experiential knowledge regarding the relationship between environmental conditions and cattle growth.

Grazing Practices and Fodder

Seasonal, transhumance-based grazing practices are followed in the rearing of Teni hill cattle. During the summer months, cattle are grazed in the plains, while in the monsoon season they are taken to the hilly regions for grazing. However, some herders follow the practice of grazing cattle in the hills throughout the year. In the hilly regions, a grazing land known as “Mādu Darisu”, located near the Veerappa Ayyanar temple (Fig. 05), is regarded as an area historically set aside for cattle grazing by colonial administrators. Following this, areas known as “Pul Medu” grassy plateaus situated atop rocky outcrops also function as important grazing zones for cattle. When cattle graze in the plains, they consume locally available grasses such as ‘Thengai puttu kolai’, ‘keerai puttu kolai’ or ‘kodi kolai’, and other grass. These varieties of fodder not only give the nutritional requirements of Teni hill cattle but also reflect their strong ecological adaptability.

Camping and Grazing in the Hills

Teni hill cattle primarily depend on the grazing resources available in hilly terrains. Herders state that these cattle possess an inherent ability to recognize grazing grounds and water sources found in mountainous regions.

When cattle are taken to the hills for grazing, herders remain in the hills along with the animals for a minimum period of two to three days. Furthermore, when the practice of year-round hill grazing is followed, cattle belonging to six to seven herd are grazed together, and herders rotate their duties every ten to fifteen days. During these rotations, herders carry only the required quantity of rice for their stay. Milk obtained from the cattle is churned into curd and consumed as food.

At night, the resting place where cattle are enclosed known as ‘Thandhalam’ is secured by thorn fences around the area. On certain occasions, herders also stay within rocky crevices. Due to the high level of intelligence attributed to Teni hill cattle, they are believed to recognize the vocal calls made by herders and instinctively follow them. It is generally stated that a single herder is sufficient to control and guide the cattle. However, herders also note that at times, particularly when the cattle exhibit heightened aggression, they may charge at the herder.

Herders further explain that when cattle sense the movement of tigers, they emit a distinctive sound referred to as “kekkarithal” (கெக்கறித்தல்) or “varudu kattuthal” (வருடு கட்ஓதல்). Incidents involving tiger attacks are reported to occur more frequently during

daytime grazing than during night resting periods. The sound of bells tied around the necks of cattle is believed to deter wild bovines from approaching herd cattle and herders. Nevertheless, there are instances in which wild cattle graze alongside herd cattle and eventually return with them to the resting herd. Bells are predominantly fitted only to cattle reared in hill-adjacent regions, particularly in areas such as Vatharappu and Koomapatti. These bells serve as an important means of identifying cattle regardless of their location. Herders emphasize that the continuous coexistence between cattle and herders contributes to the perception of the hill environment as a secure and sustainable living space.

Milk

Milk production is not primarily pursued for commercial purposes rather it is collected solely for household consumption. On average, two cows together yield approximately three litres of milk per day. These cows provide milk for a maximum period of about three months. The milk obtained is typically warm and slightly frothy. Since the cattle are reared on natural grazing in hilly terrains, their milk is noted for its high fat content. Analyses indicate that Teni hill cattle milk contains an average lactose concentration of 0.443 ± 0.022 . Additionally, seasonal variations, particularly during the winter, influence the levels of fat and protein present in the milk.

Veterinary Care and Indigenous Medical Practices

Herders report that the incidence of disease among Teni hill cattle is relatively low. However, when health issues arise, particularly during the monsoon season, local traditional veterinary practices are employed. When cattle experience abdominal bloating and digestive disorders, a mixture of 'ilavam' buds (Cotton seed) combined with coconut oil is administered orally. This is believed to expel undigested matter from the stomach and restore the animal to normal health. As an alternative remedy, a mixture of dry ginger (sukku), curd, and water (with approximately 100 ml more water than curd) is also administered.

To prevent diseases such as pox and foot and mouth disease, herders feed cattle a mixture of millet rice (samai) and pig fat. In cases where cattle are bitten by venomous insects or snakes, herders report that making a small incision in one side of the animal's ear to allow blood to flow helps reduce the effect of the venom and facilitates recovery. Additionally, the sound produced by bells tied around the necks of cattle is considered a protective mechanism that

deters venomous creatures and wild animals from approaching. As such, bells are regarded as playing an important role in the protection of Teni hill cattle.

In instances of bone fractures, herders manually examine the affected area and follow the practice of applying hot branding marks to the injured region. It is believed that this treatment enables the fracture to heal within approximately fifteen days. Consequently, Teni hill cattle are considered to be relatively less susceptible to infectious diseases. Furthermore, dogs are often taken along during grazing as an additional measure for protection (Fig. 06).

Herd Maintenance

Upon returning from grazing, Teni hill cattle are generally enclosed in the herd between 6 and 7 p.m. During this time, the prevalence of flies and mosquitoes increases, which may pose a risk of disease to the cattle. To mitigate this, a traditional fumigation practice is followed. Substances such as 'karuvattu' (dry fish) powder, pig fat, sāmpirāni (benzoin), and coconut husk are used to generate smoke. Herders believe that the smoke not only repels insects but also enhances the cattle's immunity against diseases. However, they caution that excessive or continuous fumigation may adversely affect the health of the cattle. Therefore, this practice is not performed daily but typically at intervals of once every two days.

Use in Agriculture

Although Teni hill cattle are of medium body size, they are extensively used in agricultural activities. Calves possessing the appropriate physical structure and desirable traits required for ploughing are carefully selected for this purpose. As a measure to maintain control over cattle intended for agricultural labour, castration is performed. In local cultural practice, this procedure is referred to as 'kai kāy adithal' (Natural way of Castration). It is said to involve crushing the testicles between two wooden pieces, thereby rendering them non-functional. Following this procedure, the cattle are allowed to graze with herd for a period of 15 to 20 days. Once adequate physical strength is attained, nose piercing is carried out. This practice is not applied to all cattle but is restricted to those specifically selected for agricultural use. After the emergence of two permanent teeth, the cattle are employed in ploughing activities as well as in cultural sporting events such as bullock cart races (Rekla). In this manner, Teni hill cattle play a vital role in both agricultural production and cultural practices.

Economic Status

The livelihood of herder who rear Teni hill cattle primarily depends on the sale of manure, calves, and income derived from kīdai arrangements. The economic system of herders largely operates on the basis of mutual understanding agreements. Cattle owners who are unable to manage their animals directly at home either hire herders on a wage basis or entrust their cattle to herders through an informal agreement. Here, a “mutual understanding agreement” stipulates that half of the offspring produced from the entrusted cattle and calves must be given to the herder. This system is founded on both economic sharing and mutual trust between the cattle owner and the herder.

Cattle owners employ skilled herders to manage grazing. Cattle owners paid to cattle keepers, a daily wage of ₹500, provided with meals twice a day, and given one load of manure per month (₹6,000) as part of their remuneration. Additionally, during periods when milk is required at home, herders collect milk. When grazing cattle in the hills, herders are paid ₹800 per day, provided with three meals, and accommodated during the stay. Furthermore, during the Pongal festival, it is customary to honour herders with clothing and footwear. During the Diwali festival, cattle owners who wish may offer additional tokens of respect to the herders as a form of gratitude.

Cattle Pricing

Traditionally, the price of cattle is determined primarily based on the arrangement of their teeth. The stage of tooth development serves as an important indicator for estimating the age and ploughing capability of the animal. However, in the case of Teni hill cattle, body conformation and coat colour also play a significant role in price determination. According to local practices, Teni hill cattle with a blackish coat called as ‘Karumpōr cattle’ may be valued at up to ₹30,000, while those with a whitish coat ‘Mayilai cattle’ are typically priced up to ₹25,000 .

Tying the Parivattam to Cattle (Temple Cattle)

The worship of cattle constitutes an important cultural practice within human societies. In particular, in Teni district, there exists a long-standing custom during the Pongal harvest festival of tying a parivattam (ceremonial cloth) to the chief cattle of the Veerappa Ayyanar temple. These animals, commonly referred to as “temple cattle,” identifying marks such as a trident (sūlam) symbol branded on the hind thigh (Fig. 07).

During Pongal, a ritual is performed in which the parivattam is tied to the chief temple cattle and the animal is then ceremonially released. It is believed that the place where the cattle eventually come to rest after wandering freely will be blessed with prosperity and abundance. This practice reflects the ritual significance attributed to cattle and reveals belief systems associated with livestock worship.

Conclusion

In South India, Teni hill cattle represent a significant breed closely intertwined with cultural practices. Based on traditional subsistence strategies, these cattle have likely played an important role in cultural events conducted in hilly and hill-adjacent regions. Teni hill cattle are widely reared not only in the Western Ghats but also in the surrounding plains. Traditional knowledge associated with grazing communities is evident in practices such as branding, indigenous veterinary care, herd management, and the construction of 'Thandhalam'. The offering of cattle to temples and the performance of cattle-related rituals further underscore the centrality of these animals in the socio-cultural life of the community. The marks applied to identify cattle within herd systems serve both medical and aesthetic purposes, reflecting a nuanced understanding of herd management. Herders' active involvement in herd maintenance is of critical importance, while the mutual understanding agreements governing economic arrangements provide a stable framework for livelihood security.

As a result, they prioritize guided movement and controlled management over strict confinement. Such practices offer valuable insight into development of human–livestock relationships, making this study an important reference for understanding both pastoral strategies and socio-cultural dynamics.

Figure 1 Distribution of Teni hill cattle. Pic courtesy R Priyadharsini 2024

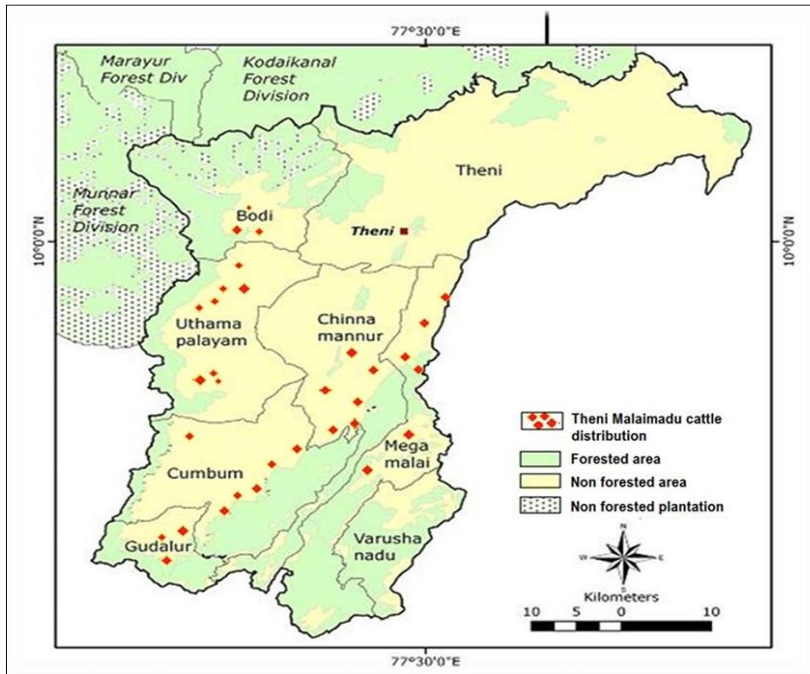


Figure 2 A black-coated bull with a bell tied around its neck.



Figure 3 A red-coated bull with distinctive identification markings on its face.



Figure 4 Calves with a reddish-brown coat



Figure 5 field work area of Maṭṭu Darisu (designated grazing ground) located near the Veerappa Ayyanar Temple.



Figure 6 A dog reared for the protection of cattle.

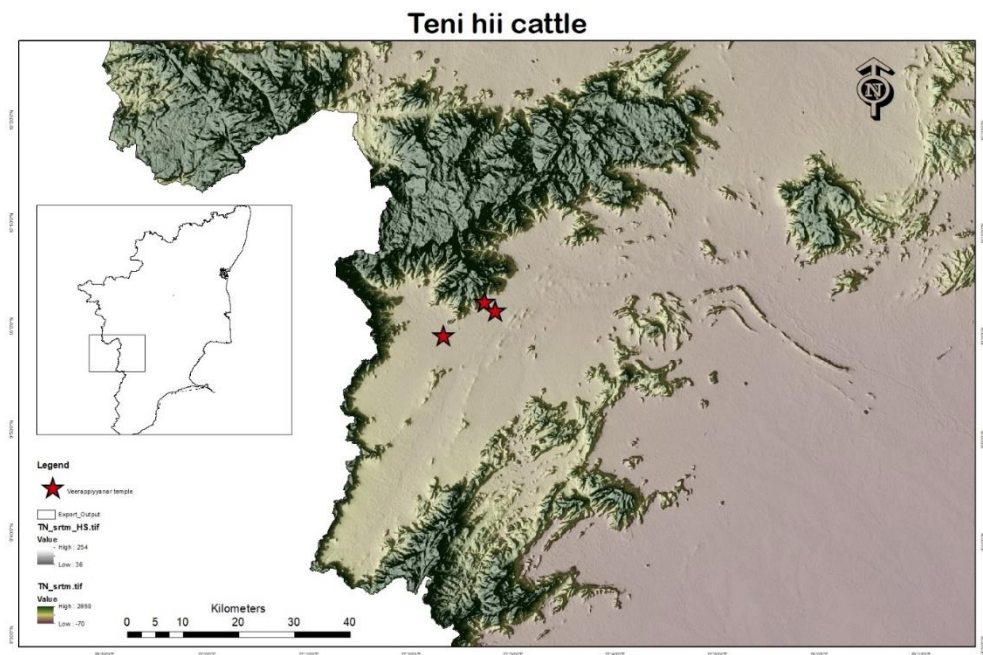


Figure 7 A temple bull identified by a trident (śūla) mark



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Interview with cattle keepers

1. Bagavathi (45), Teni, Karattupatti, Dec 2025
2. Ethilavu (75), Karattupatti, Dec 2025
3. Prakash (36), Chinnamanr, Dec 2025
4. Santhosh (19), Karattupatti, Dec 2025
5. Shajahan (21), Karattupatti, Dec 2025
6. Sinthal (35), Chinnamanr, Dec 2025
7. Siva (40), Karattupatti, Dec 2025
8. Veera (46), Karattupatti, Dec 2025