

Mithun (*Bos frontalis*) – ‘The Soul of the Mishmis’ is BOON or BANE for Anjaw district of Arunachal Pradesh

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Introduction

‘Cattle of the Hills’ – Mithun (*Bos frontalis*) and Anjaw district of Arunachal Pradesh are closely connected both culturally and economically. Mithun is deeply linked with the identity, tradition and rituals of the Mishmi tribes of Anjaw. Mithun is considered a prestige animal and a symbol of wealth and status among the Mishmi tribes of Anjaw. Mithun is a unique semi-domesticated bovine, considered the state animal of Arunachal Pradesh and it holds cultural, economic and social importance for the tribal communities of Arunachal Pradesh. Anjaw, the beautiful land of Digaru/Tawrah Mishmi, Miju/Kaman Mishmi and Meyor tribes of Arunachal Pradesh situated on the north-eastern tip of India bounded on the north by China, Lower Dibang valley and Lohit district on the west, Changlang district on the south and Myanmar on the east (Anon., 2026). It is the eastern most district in India having a total area of 6190 sq. km with 68.62% of forest area (Anon., 2023). According to 2011 census, the district has a total no of 4180 households with a population of 21,167 (Anon., 2011). The animal population as per March, 2023: Mithun- 9758; Cattle-1380; Pig- 5109; Goat- 961; Poultry-14545 and Duck-110 in number (Anon., 2023). However, specific data on Mithun in Anjaw is limited.

Livelihood in the district mostly dependent on agriculture, livestock and forest-based activities. The livestock sector in Arunachal Pradesh faces several production constraints including inadequate feed and fodder resources, prevalence of low-yielding indigenous animals, inadequate breeding and veterinary services, traditional husbandry practices, poor livestock infrastructure and limited market connectivity. These constraints are particularly important in remote and mountainous districts such as Anjaw, where difficult terrain, poor connectivity limits the modern economic development with increase in cost and difficulty of providing veterinary, breeding and input services. Consequently, livestock productivity, particularly milk production, remains relatively low, limiting the contribution of livestock to household nutrition and farm income. The Miju and Digaru Mishmi communities of Arunachal Pradesh attach considerable social, cultural and economic importance

to the mithun (*Bos frontalis*). Mithun represents a valuable livestock asset as well as an integral component of their cultural identity, social status and traditional way of life. Mithun is not merely reared as a source of meat and livelihood but is deeply embedded in the traditional socio-cultural system of the Mishmi people. Its ownership is regarded as a symbol of wealth, social status, prestige and prosperity within the community. Mithun also plays an important role in traditional exchange and trade and is used during important social and ceremonial occasions. Traditionally, mithun has been offered or exchanged as part of bride-price arrangements, thereby strengthening social and kinship relationships between families. Furthermore, its sacrifice and use in customary rituals and community ceremonies reflect its important religious and cultural significance.

The Zakhring (Meyor) community of Anjaw district traditionally depends largely on agriculture and allied activities for their livelihood. Farming, livestock rearing and other natural-resource-based activities form an important part of their rural economy. Compared with the Miju and Digaru Mishmi communities, Mithun has traditionally received relatively less cultural and economic emphasis among the Zakhring people.

Here’s an overview of Mithun commonly known as Gayal in the region.

General picture:

At the state level, Arunachal Pradesh accounts for a staggering 350,154 mithun - about 91% of India’s total mithun population (~3.86 lakhs as per 2019 census). This reflects a national increase of around 30% in mithun numbers since the previous census (Anon, 2019).

1. Symbol of Wealth and Prestige

- Owning mithun is considered a sign of prosperity, social standing and prestige.
- A family’s economic status is often judged by the number of mithun they own rather than by land or money.

2. Religious and Ritual Importance

- Mithun is central in animistic rituals and festivals of the Mishmi and other tribes.
- Sacrificing a mithun is believed to please deities and ancestral spirits, ensuring prosperity, protection and fertility.
- During marriages, mithun sacrifice is essential to sanctify the union.

3. Medium of Social Bonding

- Mithun is often exchanged as bride price (dowry), strengthening family ties and alliances.
- It is also used in settling disputes, compensating for wrongs or reaffirming peace between clans.

4. Doctrine

- Local communities believe mithun has a sacred link with nature and spirits.
- It is seen as a gift from the divine, symbolizing harmony between humans and forests.
- Killing a mithun outside of ritual context is often considered a taboo.

5. Cultural Identity

- Festivals, folk songs and dances in the district often revolve around mithun.
- For the Mishmi tribe, the animal represents identity and continuity of tradition.

A. Mithun as a Boon for Anjaw

1. Cultural and Socio-Economic Importance

- Mithun (Gayal) serves as a potent symbol of wealth, prestige, and social status among tribal communities in Arunachal Pradesh including the Mishmi, Adi, Galo, Apatanis peoples.
- Traditionally, it plays a role in ceremonial exchanges, bride price, fines and community festivities.
- Architecturally, carvings of mithun heads adorn homes to reflect the owner's prestige.
- The mithun is also the state animal of Arunachal Pradesh, featuring in its official emblem underlining its cultural significance.
- Acts as "living bank": exchanged or sold during financial needs.
- They are primarily raised for meat often sacrificed during ceremonies and sold during emergencies, but milk and leather are also significant by-products. Hides and horns also fetch high market values.

2. Marker of Tribal Uniqueness

- Different tribes have unique traditions, songs, dances and oral histories associated with mithun.
- Mithun motifs are reflected in folk art, carvings, tattoos and traditional attire.

- Even today, despite modernization, mithun remains central to tribal identity and heritage.

3. Spiritual and Religious Symbolism

- Mithun is seen as a sacred animal, often linked to fertility, prosperity and blessings from the divine.
- Many tribal myths and folklore portray mithun as a divine gift to humankind.
- In some communities, mithun are never harnessed for labour, they are kept purely for ritual and cultural purposes.

4. Farming Practices

- Mithun is typically reared through free-range forest grazing systems, often with communal herds supervised during the day and brought home at night. Requires little investment in housing or concentrate feed (mostly forest-grazing).
- In some cases, mithun grazing helps control excessive undergrowth in jhum fields or forest areas.
- These animals are special salt-lovers and may travel extensively in search of forage, up to 30 kg of intake per day.
- Mithun can complement crop-based livelihoods by providing manure and diversifying farm income.

B. Mithun as a Bane for Anjaw

1. Fodder Scarcity

- Increasing population of mithun and overgrazing leads towards fodder shortage in village forests.
- Competition with cattle, goats and other livestock for limited resources.

2. Agriculture

- Mithun are usually left to graze freely in forests and near villages. They often enter cultivated fields, feeding on crops such as paddy, maize, millet, vegetables and pulses.
- Their large body size and weight lead to trampling of plants in addition to eating them.
- Fruit orchards (orange, banana, pineapple, etc.) and kitchen gardens are highly vulnerable.
- Time, labour and resources spent on fencing increase the burden on farmers.
- Fear of crop damage leads to fallow land left uncultivated near mithun-grazing zones.
- Constant movement of Mithun on farmland and forest compacts the soil, reducing aeration and water infiltration. This

decreases soil fertility and lowers crop productivity.

3. Forest Degradation

- Uncontrolled grazing in jhum fallows and community forests leads to soil erosion, loss of undergrowth and reduced regeneration of forests.
- Mithun often break young plants and saplings while browsing or rubbing against them due to their heavy body size and weight.
- Dependence on forest fodder creates pressure on natural resources. In lean seasons (winter/dry months), scarcity of fodder affects both mithun health and farmers' income.
- Mithun often compete with wild animals (gaur, deer) for grazing areas, leading to ecological imbalance.

4. Productivity Concerns

- Slow growth, late maturity and low milk yield, not as productive as other livestock.
- Primarily meat animal, so returns are limited compared to other livestock.
- Challenges include inbreeding, genetic dilution from crossbreeding, habitat loss and disease.
- Farmers invest years in rearing but get less economic benefit compared to cattle, pigs or poultry.

5. Disease Transmission

- Free-ranging mithun often mix with cattle, increasing risk of diseases like FMD, HS and parasitic infestations.
- Limited access to healthcare, vaccination and breeding facilities causes frequent disease outbreaks.

6. Conflict with others

- Free grazing practices causes dispute between mithun owners and crop growers.
- Farmers bear heavy losses as crops are destroyed just before harvest.
- In some cases, heavy losses discourage people from investing in agriculture.
- Mithun grazing grounds overlap with elephant, wild animal habitats and leads to crop raiding and conflicts.

- Crop damage often leads to disputes among households and villages, creating social tension.

7. Threats

- Specifically in Anjaw, road accidents are also the serious issues, numerous mithuns have been killed due to reckless driving along highways, significantly impacting local communities economically and emotionally.

C. Capacity building initiatives:

• Semi-Intensive Mithun Rearing:

1. Encourage controlled grazing with stall feeding during lean seasons.
2. Mithun dung enriches soil fertility and improves crop productivity.
3. Farmers use mithun in integrated farming (crop with livestock), which supports sustainable agriculture.

• Fodder Development:

1. Promote Napier grass, maize fodder and tree fodder plantations on community lands.
2. Community-level grazing zones and restrictions near crop fields.

• Community warning and night herding:

1. Encourage owners to keep mithun in known, secure night corrals.
2. Rotation of corrals to avoid overgrazing. Use community shifts so no single household bears all effort.
3. Simple phone/WhatsApp alert group or bell/whistle system to warn farmers when herds move nearby.

• Breed Improvement & Veterinary Care:

1. Vaccination, disease surveillance and selective breeding for better productivity.
2. Awareness programs to balance mithun-rearing with agricultural security.
3. Build reinforced community corrals and calf houses to reduce roaming and improve animal welfare.

• Community-Based Management:

1. Strengthen traditional grazing rules and community forest institutions.
2. Government-supported schemes for mithun rearing in controlled enclosures.
3. Build reinforced community corrals and calf houses to reduce roaming and improve animal welfare.

• **Value Addition:**

1. Promote mithun meat processing, hide-based handicrafts and branding as organic tribal products.

D. Conservation and Policy Pushes

- There is a growing appeal from scientists and tribal farmers to include mithun under India's National Livestock Mission (NLM) to ensure focused support for breeding, feeding, health and market value-chain development.
- The ICAR–National Research Centre on Mithun (NRCM) in Nagaland is a key institution spearheading conservation, scientific breeding and germplasm preservation.
- Local policymakers have also called for specialized schemes to support Mithun (and Yak) under central livestock initiatives to bolster rural livelihoods in hilly terrains.

Culmination

In short, Mithun is a boon for Anjaw's culture and economy, but a potential bane for its fragile ecology and fodder base if left unmanaged. Sustainable practices can turn it into a long-term asset. Anjaw district's identity and tribal culture are deeply tied with mithun, which is not just livestock but a social, cultural and economic pillar of the community. Strengthening mithun rearing can help improve livelihood security in this remote district. Mithun in Anjaw is a cultural asset and wealth marker, though modern challenges like fodder scarcity, diseases and isolation threaten traditional rearing practices. There's active advocacy to include Mithun in India's National Livestock Mission to boost scientific husbandry, breeding and market viability. Events like the Mithun Mela 2025 in Siang district promote farmer scientist

collaboration on husbandry practices, disease control and genetic conservation. While mithun supports farming indirectly (manure, economy, tradition) but also hampers agriculture through crop damage and overgrazing, especially in shifting cultivation (jhum) and terrace farming areas. They also create agriculture loss, fodder scarcity, low income generation and social conflicts, making them a problematic factor in sustainable livelihoods. In one word 'Where there are Mishmis, there is Mithun'- *Symbol of Mishmi Identity*. While Mithun are considered a 'prestige animal' and part of the Mishmi cultural identity, their free-grazing habit often results in significant agricultural damage in Anjaw and other districts, creating a challenge between tradition and livelihood, which should be addressed and resolved out very fast.

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