

A Journey Towards Scientific Mithun Rearing: The Success Story of Tenning Village Farmers

**Dr. Narendra V. N., Dr. Yallappa M. Somagond, Dr. Kobu Khate
and Dr. Girish Patil S.**

ICAR–National Research Centre on Mithun, Medziphema, Nagaland, India

Corresponding Author

Dr. Narendra V. N.

Email: narendravnga@gmail.com



OPEN ACCESS

Keywords

Mithun; *Bos Frontalis*; Semi-Intensive Rearing; Tribal Farmers; Scientific Management

How to cite this article:

Narendra, V. N., Somagond, Y. M., Khate, K. and Patil, G. S. 2026. A Journey Towards Scientific Mithun Rearing: The Success Story of Tenning Village Farmers. *Vigyan Varta* 7 (08): 165-169.

ABSTRACT

Mithun (*Bos frontalis*) is an important livestock resource closely associated with the socio-cultural and economic life of tribal communities in Northeast India. Traditional free-range rearing is increasingly challenged by shrinking grazing resources, animal health risks and limited herd monitoring. Scientific management, including semi-intensive rearing, improved feeding, preventive healthcare and systematic herd management, can help address these constraints (Khan & Mitra, 2021; Vikram *et al.*, 2021). Tenning village of Peren district, Nagaland, provides an encouraging example of this transition. With technical guidance and continued field-level support from ICAR–National Research Centre on Mithun (ICAR–NRC on Mithun), farmers gradually adopted semi-intensive Mithun rearing, strengthened animal health management and revived collective action through a farmers’ society. The community Mithun herd increased from 12 animals before the intervention to 128 animals by 2025. The experience demonstrates the potential of combining scientific knowledge, traditional community institutions and sustained extension support for strengthening Mithun-based livelihoods.

INTRODUCTION:

Mithun is a unique bovine species of the Northeastern Hilly Region and forms an important component of

the livelihood and cultural systems of tribal communities. It has traditionally been maintained under free-range conditions, where

animals depend largely on natural forest vegetation. However, changes in land use and availability of natural resources have created a need for more systematic management. Scientific management practices such as improved feeding, health care, breeding management, housing and record keeping are increasingly important for sustainable Mithun production (Vikram *et al.*, 2021).

Tenning is a small village in Tenning Circle of Peren district, Nagaland, located approximately 26 km from the district headquarters and about 150 km from ICAR–NRC on Mithun, Medziphema. Mithun rearing is traditionally integrated with agriculture and community life. In 2014, farmers established a Mithun Rearing Society to promote collective management, with animals managed by a herdsman in a grazing area allotted by the village council.

Despite its advantages as a low-input system, traditional free-range management posed challenges related to crop damage, predator attacks, injuries, nutritional deficiencies and inadequate monitoring of calves and pregnant animals. Animal health is particularly important because parasitic infections can reduce Mithun productivity, emphasizing the need for preventive health care, appropriate management and feeding (Chamuah *et al.*, 2020).

Challenges Before the Intervention

Frequent grazing-related damage to agricultural crops and uncontrolled animal movement.

Risk of attacks by wild animals, predators and accidental injuries.

Limited supplementary nutrition and mineral management.

Inadequate monitoring of pregnant animals and calves.

Limited disease surveillance and preventive healthcare.

Poor access to regular technical guidance and veterinary services.

ICAR–NRC on Mithun Intervention

Responding to farmers' concerns, ICAR–NRC on Mithun initiated field-level technical guidance and promoted a semi-intensive Mithun rearing model suited to local conditions. Input support was provided under the Tribal Sub Plan (TSP), while scientists maintained regular interaction with the community. The approach was consistent with recommended scientific Mithun husbandry practices emphasizing improved feeding, health care, calf management, breeding and systematic herd management (Devi *et al.*, 2024).

The intervention focused on practical, farmer-friendly measures rather than one-time input distribution. Major activities included awareness programmes, field visits, farmer–scientist interactions, animal health camps, FMD vaccination, ectoparasite control, health monitoring, nutritional and mineral supplementation, and guidance on calf and pregnant-animal management. Such preventive health measures are particularly relevant under the agro-climatic conditions of Northeast India, where parasitic challenges are common in Mithun (Chamuah *et al.*, 2020).

Adoption of Semi-Intensive Mithun Rearing

Farmers gradually shifted from largely uncontrolled free-range rearing towards a more systematic semi-intensive and monitored system. Controlled animal movement helped reduce crop damage, while closer supervision improved care of calves, pregnant animals and the overall herd. Supplementary nutrition and mineral feeding supported better management, while vaccination, health camps and

ectoparasite control strengthened preventive healthcare.

The intervention also increased farmer confidence. Rather than replacing traditional community practices, the semi-intensive approach integrated scientific management with the existing collective system, making Mithun rearing more manageable and responsive to emerging production and health challenges.

Revival of the Mithun Farmers' Society

The positive experience encouraged collective action. Farmers revived their organization and formed a Mithun Society comprising 32 farmers, which was subsequently registered under the Nagaland Cooperative Societies Act. The society strengthened collective decision-making and created a platform for accessing technical information, veterinary services, government programmes and institutional support. It also strengthened the farmer–scientist linkage and facilitated coordinated management of the community herd.

Transformation in Mithun Herd Strength

The most visible outcome has been the increase in the community Mithun herd from 12 animals before the intervention to 128 animals by 2025—more than a ten-fold increase. The change is associated with improved herd management, better animal health care, strengthened community organization and renewed farmer interest in Mithun rearing.

Indicator	Before Intervention	After Intervention
Mithun herd strength	12	128 (2025)
Rearing system	Predominantly free-range	Semi-intensive and monitored
Farmer organization	Society became inactive	Registered 32-member Mithun Society
Health management	Limited monitoring	Health camps, vaccination and

		parasite control
Feeding	Mainly natural grazing	Supplementary nutritional and mineral feeding
Calf management	Inadequate monitoring	Improved monitoring and care
Crop damage	Frequent	Reduced through controlled rearing
Farmer confidence	Declining	Renewed interest in Mithun farming

Table 1. Changes in Mithun management and community organization in Tenning village.

Impact and Outcomes

Adoption of scientific Mithun management through semi-intensive rearing.

Increase in community Mithun herd strength from 12 to 128 animals by 2025.

Revival and strengthening of collective Mithun farming through a 32-member farmers' society.

Reduction in crop damage through controlled animal movement and improved herd management.

Improved monitoring and care of calves and pregnant animals.

Improved preventive animal health management through vaccination, health camps and ectoparasite control.

Better nutritional management through supplementary feeding and mineral supplementation.

Reduced vulnerability to predator attacks and injuries through improved management.

Renewed farmer confidence and interest in Mithun rearing as a livelihood activity.

Strengthened farmer–institution linkages through continued technical guidance.

A Model of Community-Based Scientific Mithun Farming

The experience of Tenning village demonstrates that scientific interventions are most effective when integrated with local knowledge, community institutions and continuous extension support. The semi-intensive model offered a practical way to address limitations of free-range management while retaining the community-oriented character of Mithun production. The package of practices developed by ICAR–NRC on Mithun provides a scientific basis for improved housing, feeding, health, breeding, pregnant-animal and calf management (Devi *et al.*, 2024).

The transformation from a village with 12 Mithun and an inactive farmers' society to a community with 128 Mithun and a registered 32-member Mithun Society is a notable example of participatory technology adoption and sustained institutional support. The Tenning experience can provide a useful model for other Mithun-rearing communities seeking to improve herd management and livelihood resilience.

CONCLUSION

The Tenning village experience shows that sustainable improvement in Mithun farming requires more than the provision of inputs. Scientific management, preventive healthcare, improved nutrition, community organization, farmer–scientist interaction and continued institutional support together contributed to the positive transformation. The substantial increase in herd strength and revival of collective action indicate the potential of participatory extension approaches in strengthening Mithun-based tribal livelihoods. Scaling such locally adapted semi-intensive models can contribute to sustainable Mithun production while retaining the traditional

community-based character of this important livestock resource.

Key Message

“From 12 Mithun to 128: Scientific Management, Community Participation and Institutional Support Revive Mithun Farming in Tenning Village.”

Figures

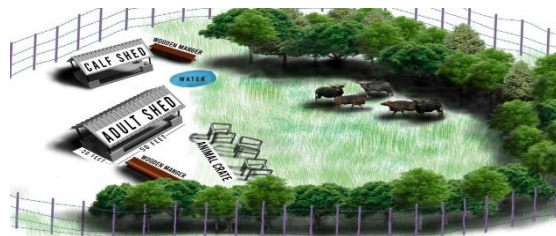


Figure 1. Semi-intensive Mithun rearing model introduced by ICAR–NRC on Mithun.



Figure 2. Animal health camp conducted at Tenning village.



Figure 3. Vaccination and preventive healthcare programme at Tenning village.



Figure 4. Mithun herd maintained under the semi-intensive rearing system.

REFERENCES

- Chamuah, J. K., Raina, O. K., & Ament. (2020). Parasites of mithun (*Bos frontalis*) in North Eastern hilly region of India—A review. *Indian Journal of Animal Research*, 54(2), 133–137. <https://doi.org/10.18805/ijar.B-3761>
- Devi, L. S., Kumar, H., Hanah, S. S., Khate, K., Jyoti, Haque, N., & Patil, S. G. (2024). Package of practices for scientific Mithun (*Bos frontalis*) husbandry. ICAR–National Research Centre on Mithun, Nagaland.
- Khan, M. H., & Mitra, A. (2021). Mithun (*Bos frontalis*) farming: Potential, threats and conservation strategies. *Indian Farming*, 70(7).
- Vikram, R., Khan, M. H., Joshi, V., & Mukherjee, S. (2021). Scientific management practices of Mithun. *Biotica Research Today*, 3(12), 1099–1102.