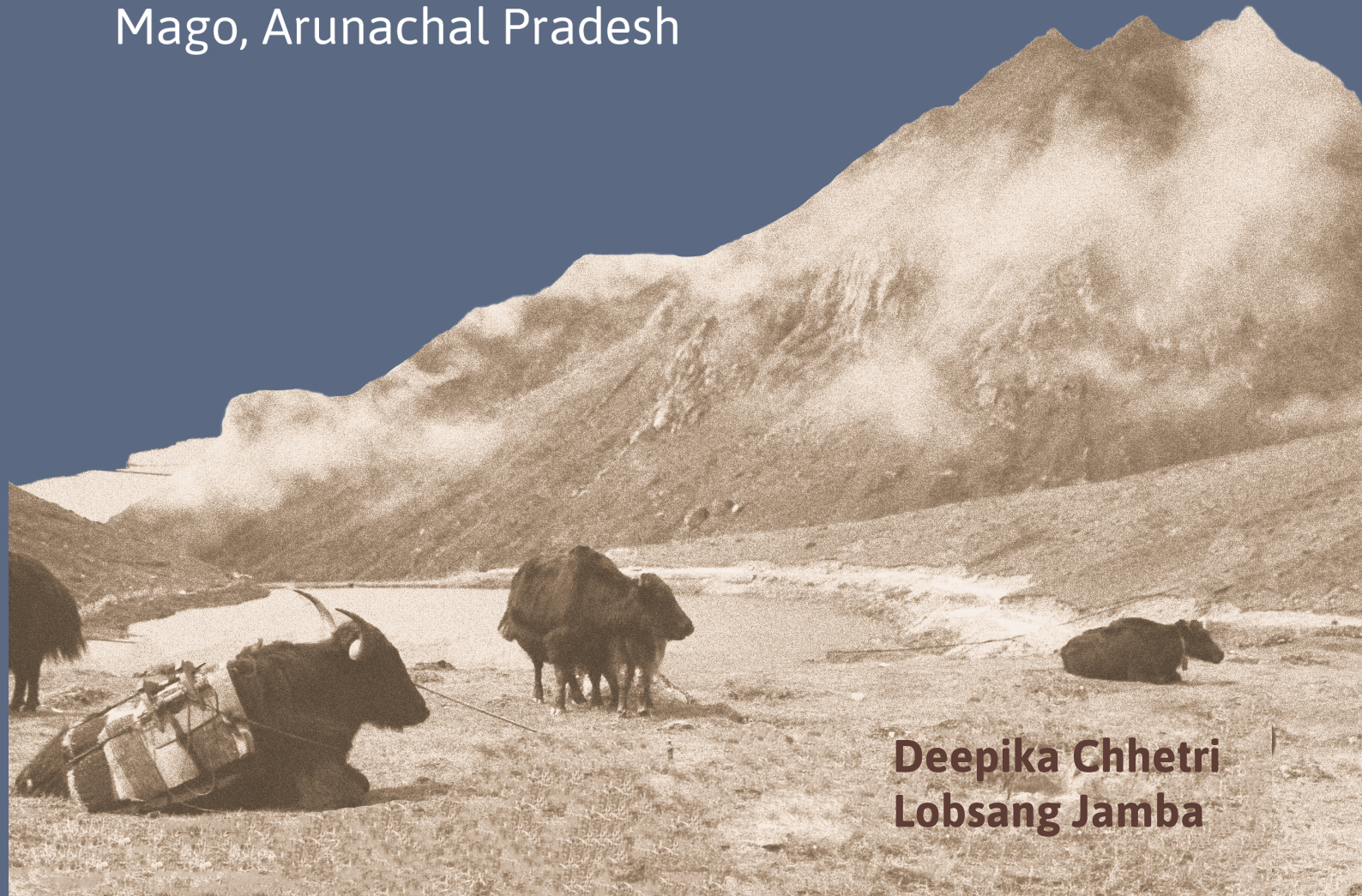


RESEARCH REPORT
2026

The Yakherds of the Far East

A project report focusing on
Mago, Arunachal Pradesh



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Lobsang Jamba**



**Centre for
Pastoralism**

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**The Yakherds of the Far East: A project report focusing on
Mago, Arunachal Pradesh**

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The Yakherds of the Far East

A project report focusing on Mago, Arunachal Pradesh

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Pastoralism**



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Introduction

The Brokpas of Arunachal Pradesh have adapted to the dynamics of an evolving economic landscape, maintaining the cultural significance of yaks while diversifying their herds to meet new challenges.



Arunachal Pradesh, is a state in North Eastern India with exceptional ecological and cultural significance.

The Lush landscape of Arunachal Pradesh

Land of the dawn-lit mountains, Arunachal Pradesh, located in the easternmost part of India, is a region of exceptional ecological and cultural significance. Bordered by Bhutan to the west, Tibet (China) to the north, and the Indian states of Assam and Nagaland to the south and east, it spans an area of 83,743 sq. km, making it the largest state in Northeast India. According to the India State of Forest Report (2019), 79.63% of Arunachal Pradesh's geographical area is under forest cover and is home to an estimated 40% of India's floral and faunal species - the second highest in India after Madhya Pradesh. This positions the state as a critical stronghold for biodiversity conservation in South Asia.

Arunachal Pradesh is also home to 26 major tribes and over 110 documented sub-tribes, distributed across 28 districts (Office of the Registrar General & Census Commissioner 2011). With a population density of just 17 persons per sq. km (Census 2011), the state retains large tracts of relatively undisturbed landscapes. The majority of its population depends directly on natural ecosystems, with 66% engaged in agriculture, horticulture and livestock rearing.

Arunachal, in post-colonial India, remained largely peaceful, with no comparative history of insurgencies. The state was known as the North East Frontier Agency (NEFA) until 1972, when it became a union territory. In 1987, it became a full-fledged state.

Monpas of Western Arunachal Pradesh

The Monpas are an indigenous community primarily residing in the West Kameng and Tawang districts of Arunachal Pradesh. Historically, their cultural and kinship ties extended across present-day borders into Bhutan and Tibet, reflecting a long-standing trans-Himalayan identity rooted in shared language, religion, and trade. Extensive trade prior to the 1960s, employed a significant number of Brokpas, who managed the transport of goods & commodities flowing between Assam plains & the Tibetan plateau. F.M Bailey, a colonial officer toured the region extensively in 1917-18 and described numerous herds of Brokpa Yaks in the neighbouring Tsona Dzong.

Monpa regions were traditionally referred to as Monyul, from the Tibetan 'Mon' meaning "lowlander" and 'yul' meaning "region". Before the formation of modern states, southern Tibet—including parts of present-day Sikkim and Bhutan—was known as Monyul or Lho Mon, highlighting the region's integrated cultural landscape.

The Monpas are ethnically Tibetan and followers of Tibetan Buddhism. The 5th Dalai Lama consolidated Tibetan authority in this region in 1690, establishing Tawang Monastery as the "spiritual and political powerhouse of the Mon area." It functioned as both a religious and administrative hub, empowered to collect taxes and governed directly from Lhasa. The selection of the 6th Dalai Lama from Tawang further underscores the area's importance. His biography remains a key historical record of Tibet–Monyul (West Kameng and Tawang) relations. Tibetan governance in Monyul areas operated through a layered system, appointing 'Tsorgan' (village heads) and 'Dzongpons' (administrative leaders) to oversee local administration and taxation.

Today's West Kameng and Tawang districts lie in the extreme west of Arunachal Pradesh, bordered by Assam to the south, Bhutan to the west, and Tibet to the north. While the majority of Monpas follow Tibetan Buddhism and share close socio-cultural similarities,



Monpas of Arunachal Pradesh.

significant differences exist in language and customs. Within Tawang district, at least four different languages are spoken, while West Kameng exhibits even greater linguistic diversity. These differences are reflected in social structures, particularly in the realms of kinship and land ownership.

In West Kameng, clan-based hierarchies continue to influence social life, with land ownership often determined by clan affiliation. In contrast, in Tawang, clan identity is mainly invoked during marriage

ceremonies, primarily to prevent endogamy. Land ownership in Tawang is generally recognized at the village level, governed by customary systems that trace the rights of the earliest male land tax payers under the Tibetan system of 'Khrey' (tax). Khrey-ma in Tawang villages are therefore, land owners. Other groups described below have to pay land tax to 'Khrey-ma' to reside in the village. However, this system is not water tight, and allows for some access to resources by these groups.

Brokpa Pastoralism

Yak herding is the predominant form of pastoralism in Arunachal Pradesh, practiced almost exclusively by the Monpa community in the high-altitude regions of Tawang and West Kameng. Yak herding involves seasonal migrations and is deeply embedded in the socio-cultural fabric of Monpa society. The centrality of yaks to the Monpa culture is evident, as yak-based dairy products remain a key part of their culinary practices. The Arunachali yak, uniquely adapted to the alpine climate, remains central to this system, providing milk, meat, and fibre, sustaining traditional exchange networks and livelihoods.

Today, traditional Brokpa herders, who are the pastoralists in the Monpa community, have diversified their herds in response to changing economic and climatic conditions. While hybrid yaks and indigenous hill cattle have long been part of the pastoral system, many herders now include Mithun (Drung Ox) and hybrid Mithun, reflecting a shift towards greater herd flexibility and income stability. Despite infrastructure development, market shifts, and environmental challenges, pastoralism continues to remain economically viable. For many Brokpas, it is a profitable livelihood, enabling them to adapt and sustain their herding traditions even amid modern pressures and dwindling interest among Brokpa youths.

The 'Brokpas' or 'Drokpas' typically reside in lower-altitude settlements, migrating with their herd to

higher pastures during the summer. They set up makeshift tents made of yak hair or, in recent times, more durable shelters constructed from wood and stone. In Tawang district, this shift towards comfortable and sustainable shelters is supported by the Department of Animal Husbandry.

The cold, alpine environment of Tawang, where agricultural productivity is limited due to unfavorable climatic conditions, relies heavily on yak pastoralism for food and nutritional security. Brokpas in most cases do not engage in agriculture, and in turn, exchange their yak based produce with food grains with unpas (agriculturists). This reciprocal relationship, known locally as Nechang, fosters mutual interdependence. As described by a Brokpa from Mago village in Tawang, every year, they would travel through thick forests to Dirang Basti, to exchange their produce with essential supplies for both their households and the animals. However, with the introduction of market-based feed and fodder, and improved infrastructure such as roads, the Nechang system has declined in recent years. Continuing to exist in some form, Dirang villagers visit their Nechang in Mago, bringing maize and other market-based goods. In exchange, the Brokpas of Mago would give their Nechang dairy products like ghee and chhurpi (cheese made from yak milk) in exchange. While some form of barter still occurs in villages like Lubrang and Nyukmadung where maize is exchanged for dairy products, the overall system is on the decline.

Despite the deep cultural importance of yaks, the number of pure yak herders is dwindling. The effects of climate change and a rise in average temperatures across the region has led the Brokpas to adapt and increase the number of hybrid yaks in the herd, as opposed to pure yaks. Pure yaks thrive in colder alpine regions and migrate earlier to higher pastures compared to yak hybrids, which are better suited to warmer mid-altitudes. This means pure yak herders must travel longer distances for grazing, often further

away from their settlements. This shift is reflected in the unit cost of a pure-bred yak which is half the price of a hybrid yak and hill cattle. Additionally, the production cycle of pure yaks is shorter—about six months—while the final product is priced similarly to that of milk from other animals, such as hill cattle, hybrid yaks, and Mithun. This makes yak rearing more demanding without sufficient economic incentives to continue. Yak hybrids, on the other hand, produce more milk and for a longer period, which has increased their



A Brokpa herdsman making butter and chhurpi (traditional cheese) in his winter settlement in Lagam. Both items bring in some income for Brokpa families.

value. This, in turn, has contributed to the decline in the popularity of pure yak rearing. However, pure yaks (female) continue to be important to re-produce hybrid yaks with Indigenous cattle.

A breakdown of approximate costs for different animals within the Brokpa herds reveals a stark contrast between pure yaks and hybrids in terms of profitability.

Pure bred Yak (Female, Adult)	Hybrid Yak (Adult, Female)	Indigenous Cattle (Adult, Male)	Hybrid Mithun
~30,000	60,000 - 70,000	~60,000	60,000 (Min cost)

The Monpas' relation to land

Monpa communities regulate land use—encompassing both settlement and forest areas—through evolving customary governance systems designed to prevent resource over-exploitation and unchecked settlement expansion, while promoting sustainable management and equitable access. The image below is an illustration of different categories of forest management systems practiced in Dirang. Similar arrangements are present in Tawang district. For example, in Jang, Monpas have a dedicated area of the village community land that is used to collect firewood. Another area is allocated for timber extraction for personal use. Commercial timber extraction is strictly banned, and the village has a land governing body, with nine members, whose responsibility it is to ensure that no such activities are carried out.

These customary laws and regulations also extend to the Brokpa pastoralists; however, their livelihoods and cultural identity are intimately tied and responsive to

the forest and rangeland ecosystems that surround them. They have extensive knowledge about the forests, edibles, rangelands, wildlife as well as village and national boundaries. Unlike sedentary agricultural communities, a Brokpa's connection to land is mobile and adaptive. Through a traditional system of grazing tax institutionalised under the Tibetan administration of the region, Brokpas have a hereditary right over their traditional routes and grazing sites. For the Brokpas, the forest is both a source of sustenance and a site of risk. It is revered as sacred, with ritual practices such as pujas and prayers offered to forest deities for good pastures and the protection of livestock. At the same time, the threat of predation by wild animals remains a significant concern, occasionally prompting retaliatory responses. In one of the consultations with pastoralists in Thingbu, Tawang, Brokpas shared their strategy to prevent wildlife attacks on livestock. They make sheds, guard their livestock and attack if the need arises.

Migration Pattern

Brokpa's cyclical migration, between summer and winter grazing sites, is meticulously planned on traditionally fixed routes. Individual herders cannot randomly access or use pastures for their benefit, nor can a new herder access these sites, without permission from Brokpas grazing on those sites or routes. Brokpas rely on environmental indicators before they decide to move, during summer and winter. The melting of snow, behaviour of pure bred yaks as summer approaches, and availability of fodder

in their current site are some of these indicators. Traditional rights based access and strong adherence to the system, allows Brokpas to successfully manage positive feedback loop, where in, their rotation between pastures allows sufficient time for the grasslands to regenerate. Conscious of the carrying capacity of each patch of grazing land, Brokpas manage access and use of pastures by other or new Brokpas to avoid pressures.

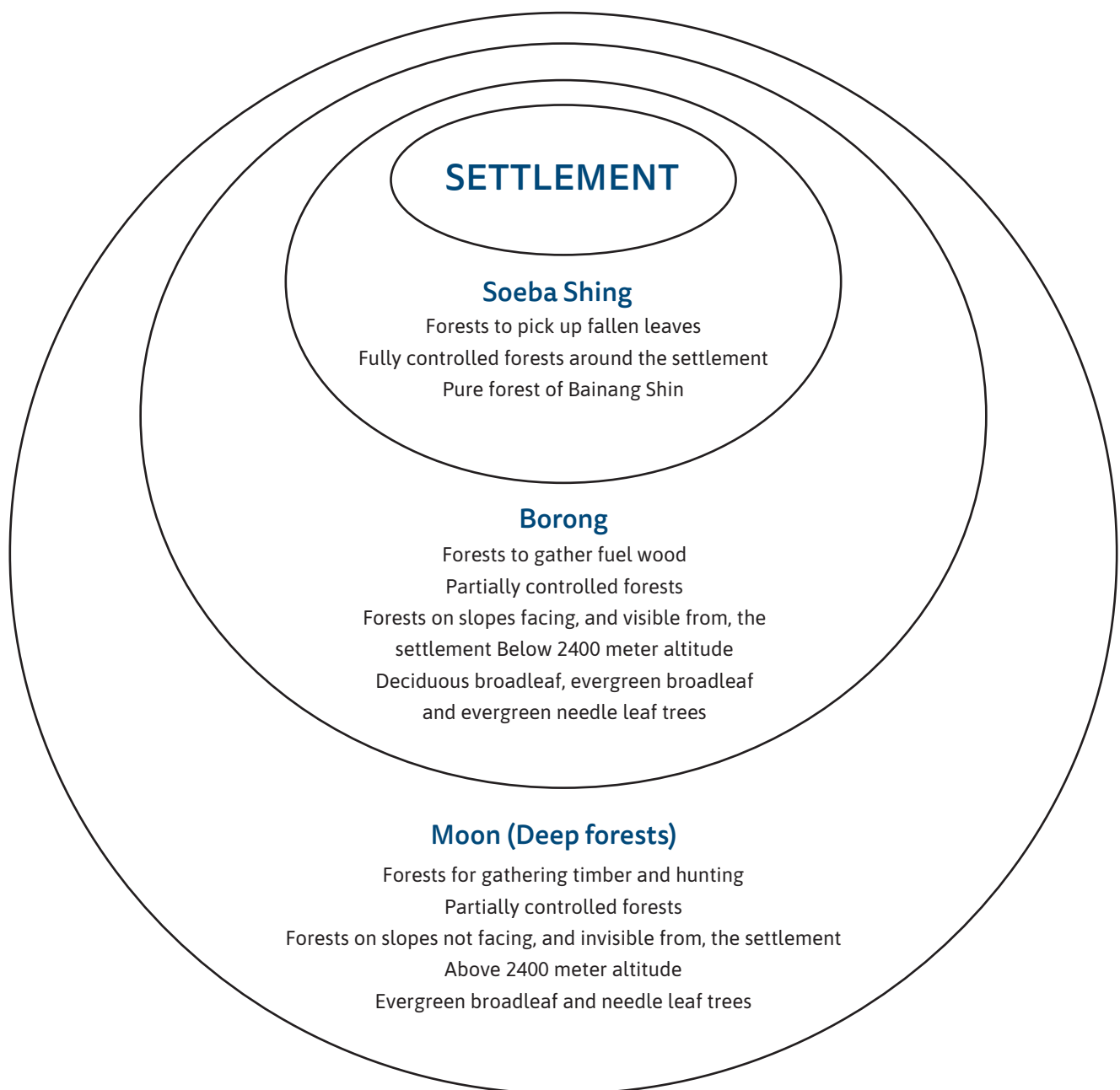


Fig 1. Classification of three forests in the Dirang [rdi rang] area. Produced from field observations and locally conducted interviews.

The 18 crore pastoral economy

There are 359 Brokpas in the pastoral landscape of West Kameng and Tawang district. Most herders continue to herd yak and hybrid yaks. Yaks remain important to produce hybrid yaks (Dzomo) offsprings, but special care is taken to ensure the safety and nutrition of hybrid yaks. These hybrids produce more milk than yaks, and are therefore invaluable to the pastoral economy. There is a visible shift towards herd diversity - many herders have begun to rear hybrid mithun for their longer lactation cycle. A few have also shifted to sedentary and pastoral herding of jersey cattle, either alone or with hybrid mithun. Many in the landscape have left pastoralism and have

moved to other forms of livelihood. There are a few pressing challenges that Brokpas face – foremost is the perception of pastoralists as illiterate, and pastoralism as archaic. Fragmentation of grazing lands and dependence on market based feed and fodder, and growing distance between pastoral youth and pastoralism due to their admissions in distant residential schools have added to the challenge. However, in spite of these push factors, pastoralism continues to be economically viable in this low input based business model. The Brokpa economy can be modelled at more than 18 crore annually.

			Total Production of Ghee/Chhurpi (kg) in Arunachal Pradesh			Revenue (in Rs.)				
Total no. of Brokpas	Ghee Avg. Annual Production (kg)	Chhurpi Avg Annual Production (kg)	Production Ghee	Production Chhurpi	Total Annual Production (Ghee + Chhurpi)	Ghee Avg Unit Price	Chhurpi Avg Unit Price	Total Revenue from Ghee Production	Total Revenue Chhurpi Production	Total Revenue (Annual in Rs.)
335	361.48	784.00	129771.32	281456	411227	430.00	451	55,801,667.60	127,015,463.68	182,817,13.28

Model Brokpa (Annual Average)							
Age	Gender	Herd Size	Milch size	Income from Herding (in Rs.)	Expenditure (in Rs.)	Herding Profit (in Rs.)	Mortality
50	Male	83	15.5	565,420.00	190,739.00	374,680.00	5

Organisation of labour

In pastoral communities of Arunachal Pradesh, household labour and resource distribution are structured by customary norms rooted in patrilineal inheritance. Among the Monpas, for instance, when a son marries and establishes a separate household, he typically receives a portion of his father's herd, an extension of a broader system in which property, including land and livestock, is transmitted through the male lineage. Under prevailing customary law, women are excluded from rights to land and property, reinforcing a gendered division of inheritance.

Among the Brokpa pastoralists, however, labour—rather than land or livestock—emerges as a critical household resource, given the physically intensive nature of high-altitude yak herding. Historical documentation of labour arrangements within Brokpa households remains limited, though some accounts suggest that in the past, entire families participated in seasonal migrations. This practice has largely diminished in recent decades due to livelihood diversification and the rising emphasis on formal education, which increasingly draws younger generations away from pastoral life. Despite the continued economic viability of yak pastoralism, a visible decline in youth participation has contributed to a loss of traditional skills and reduced labour availability within households.

This trend was particularly evident in the border village of Mago, where many young people were either employed as labourers with the General Reserve Engineer Force (GREF) or had left for educational opportunities. As a result, older household members, often parents, were solely responsible for livestock care and seasonal migration. The shortage of voluntary family labour is most acutely felt during migration, which requires coordinated effort to move herds—typically comprising 40 animals—across rugged terrain

while ensuring their safety. In such contexts, extended kin and community members often assist, either voluntarily or in exchange for compensation in cash or kind.

A case in point is that of Sangey Lhamu and her husband, Brokpa pastoralists from Jang, who were compelled to begin their winter migration earlier than usual due to the non-availability of labour. Their migration route, which lacks paved roads and passes through dense forest, posed additional challenges. With their sons residing outside the village and no other relatives able to assist, they undertook the journey with minimal support, an experience echoed by several other households. While familial and social networks often help mitigate these labour gaps, the introduction of road connectivity has also played a role in easing the logistical burdens of migration. Many Brokpas now use vehicles to transport essential supplies—bedding, food grains, and fodder—either to the migration destination or to a midpoint, after which the final leg is completed on foot with the animals.

Although some continue to rely on social support, others now hire assistance, compensating workers and/or hired labourers with monetary payments or in-kind contributions.

Despite this general shift, some households continue to follow more traditional, collective arrangements. In the village of Lubrang, for example, one family has divided responsibilities among three brothers: one manages yak hybrids and migrates to mid-altitude pastures, another oversees the main yak herd and travels to alpine grazing grounds, while the youngest remains in the village with their elderly father and assists his brothers during migration periods. All the children of the household are enrolled in residential schools, reflecting a dual commitment to sustaining pastoral livelihoods and pursuing formal education.

The unaccounted labour of women

Gender plays a significant role in shaping the organisation of labour and decision-making in pastoral households. Within Arunachal Pradesh, the role of women in pastoral economies remains poorly documented. However, existing evidence from other Northeastern states suggests that women often perform a wide range of tasks, including those traditionally considered male-dominated. Among the Monpas, for instance, women are acknowledged as equal contributors to the household and village economy, despite being excluded from inheritance and ownership of land and livestock under customary patrilineal norms. These patterns provide a basis for understanding the likely, but insufficiently recognised role of Brokpa women as key actors in the pastoral economy.

Historically, entire Brokpa families participated in seasonal migration with their herds. However,

with growing livelihood diversification and educational aspirations, these patterns have changed. Women now often remain in villages to manage domestic responsibilities, care for children, and engage in local economic and social life. At the same time, they continue to support migrating household members through logistical help and emotional labour.

For example, Khandu Chozom, the wife of a Brokpa herder in Jang, Tawang, no longer migrates with her husband, who manages a herd of 30 yaks on his own. She stays in the village to care for their school-going children and contributes to community responsibilities. In another instance, Sangey Lhamu, a Brokpa woman from Jang who had returned to the village due to ill health, procured fodder and transported it to her husband's winter pasture, demonstrating the crucial support role women continue to play



In Thembang village of West Kameng district of Arunachal Pradesh, Jangmu lhopa, a Monpa, is drying baby corn seeds. This crop is a major source of income for the tribe.



Although Brokpa women contribute equally or more than men to pastoral and household work, their labour often goes unnoticed due to the Monpa's system of patrilineal inheritance.

In many households, especially Mago, Thingbu and Lubrang village, both spouses remain actively involved in herding. Of the 92 Brokpa households interviewed, 47 (51%) had both husband and wife engaged in pastoralism. During a consultation with women from Shibjunala Brok (a winter pasture in

Mago), participants categorised daily tasks based on gender roles. These accounts illustrate that women are not only integral to the pastoral economy but often carry equal or greater responsibility within the household system.

Work Description	Gender
Summoning/Checking the herd	Men (both, as observed)
Milking	Mostly women, sometimes both
Preparation of Ghee and Chhurpi	Mostly women, sometimes both
Searching for lost animals	Either or both
Cooking related activities	Women
Firewood	Both
Winter fodder procurement from the forest	Either or both, help from Brokpas
Trip to Dirang in the past	Men
Market visit or dropping children	Either

Despite this, a notable perception emerged during the study: many women did not identify themselves as Brokpas unless their husbands had died or were not Brokpa themselves. Even in households where both partners contributed equally to pastoral work, women often refrained from claiming the identity of a Brokpa. This appears closely linked to the Monpa's patrilineal inheritance structure, in which ownership of livestock

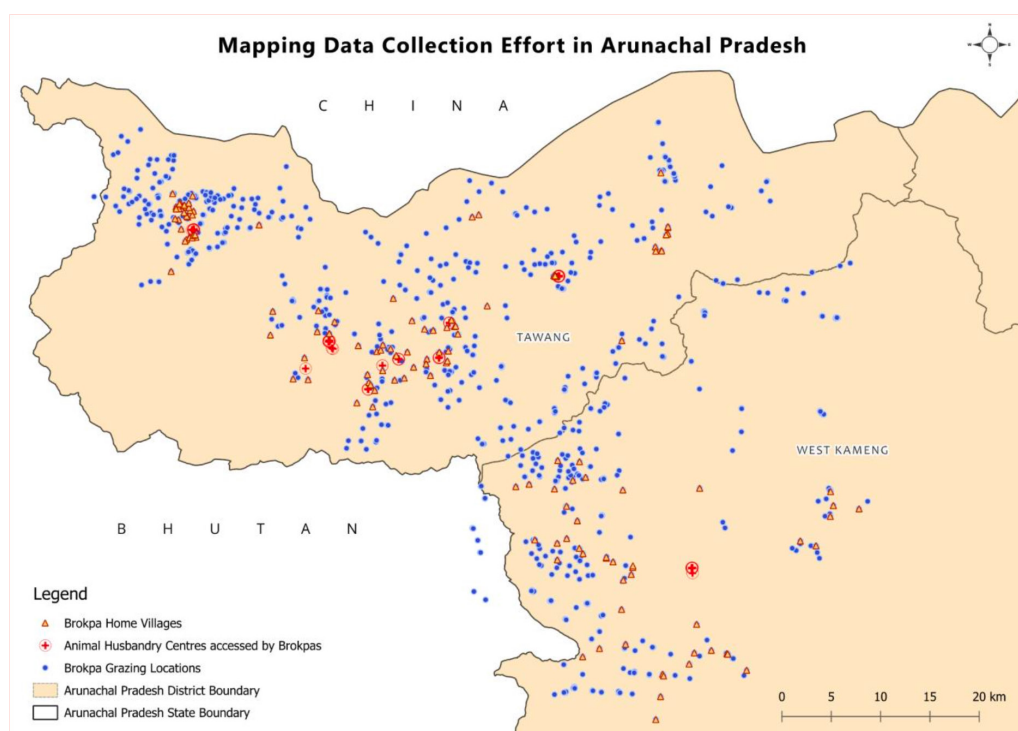
and land is formally vested in men, typically the husband or son. As a result, women's contributions, while vital, are framed within a system that does not formally recognise their economic agency or entitlement. This disconnect underscores the need for further research into gender dynamics within Arunachal's pastoralist communities.

Pastures and Migration

The Brokpas follow a system of fixed transhumant routes between designated winter and summer pastures. These migratory patterns are deeply embedded in customary practices and ecological knowledge. While grazing lands and routes are relatively fixed, in some villages, such as those in Jang and Thingbu in Tawang district, some summer pasture routes are allocated through a traditional lot-drawing method (chit system). In Jang, this allocation occurs annually, while in Thingbu, it is conducted every five years. This rotational system

is designed to ensure equitable access to grazing resources, as some routes offer more abundant pastures or are less physically demanding, while others involve longer travel or more challenging terrain. The voluntary and participatory nature of this system promotes fairness and helps distribute both benefits and burdens across pastoral groups over time.

The Brokpas follow a system of fixed transhumant routes between designated winter and summer pastures. These migratory patterns are deeply



Map 1: Scale and spread of Pastoralism in Arunachal Pradesh.

embedded in customary practices and ecological knowledge. While grazing lands and routes are relatively fixed, in some villages, such as those in Jang and Thingbu in Tawang district, some summer pasture routes are allocated through a traditional lot-drawing method (chit system). In Jang, this allocation occurs annually, while in Thingbu, it is conducted every five years. This rotational system is designed to ensure equitable access to grazing resources, as some routes offer more abundant pastures or are less physically demanding, while others involve longer travel or more challenging terrain. The voluntary and participatory nature of this system promotes fairness and helps distribute both benefits and burdens across pastoral groups over time.

Brokpa herders typically occupy their winter encampments between November and May, at

altitudes below 3,000 metres. During this period, they rely on lowland grazing areas, stored forage and market based feeds to sustain their herds. Transitional pastures, located at mid-altitudes between 3,500 and 4,500 metres—often referred to as centre hills—serve as important intermediate zones. These areas are commonly used during migration phases and for grazing hybrid yak populations that are better adapted to lower elevations.

By May or June, Brokpa families and their herds arrive at high-altitude summer pastures, which are situated above 4,000 metres. These alpine meadows provide rich grazing opportunities during the warmer months and are critical to the seasonal and low input based productivity of the pastoral system.

Modernisation, transportation and its impact on migration

Western Arunachal Pradesh, due to its strategic geopolitical location bordering China and Bhutan, has seen significant infrastructural development, particularly road construction and expansion of army camps. Road connectivity has had a profound impact on the Brokpa pastoralist community, bringing both opportunities and challenges.

Improved road access has transformed patterns of mobility and settlement. Traditionally, Brokpas lived in portable yak-hair tents during seasonal migrations. However, the proximity of roads to grazing areas has enabled a shift toward semi-permanent and permanent structures, such as stone and wooden shelters. This transformation has been further encouraged by government schemes, such as those promoted by the Department of Animal Husbandry and Veterinary Services in Tawang, which support Brokpas in constructing durable housing in their summer encampments.

Transportation methods have also evolved. Many Brokpa households now use hired or privately owned vehicles to transport supplies ahead of migration. For instance, Netan Norbu, a Brokpa from Syroh village, migrates annually to the alpine pastures of Bomla. Prior to moving with his herd, his family transports essential supplies—bedding, food, and fodder—by vehicle to their summer shelter. This significantly reduces the burden on both herders and livestock during the actual migration. In a group discussion with women from Wole and Chuna grazing areas in Mago, one younger participant noted that road access has alleviated physical hardship, allowing quicker and more efficient movement between sites. In some areas, Brokpas even use paved roads to travel alongside their animals.

Despite these conveniences, road development poses serious challenges. In many parts of Tawang and West Kameng, roads cut through traditional grazing areas, fragmenting the landscape and reducing the overall availability of pasture. Brokpas are neither consulted nor do they raise issues when permissions are sought and granted at the village level. Brokpas in Mago, Rho, and other villages reported that such developments hinder grass regeneration and promote the spread of invasive weeds (Lobo and Ervin 2019). This is especially concerning since traditional practices such as the controlled burning of pastures—which played a role in grassland management—have been restricted at

the village level. Many Brokpas voluntarily refrain from such practices, aligning with Buddhist principles of Ahimsa (non-violence), despite visible invasion of rangelands by other plants. Additionally, road-related accidents involving livestock are an increasing concern. Herders in areas such as Tawang, Bomla Pass, and Jang have reported the loss of animals due to vehicles using routes that intersect grazing lands.

Together, these developments highlight the dual nature of modernisation: while infrastructural improvements have enhanced mobility and living conditions, they have also introduced new risks to pastoral sustainability and cultural practices.



Improved access to roads has led to a shift in patterns of mobility and settlement. Brokpas have moved away from building temporary traditional structures made of yak hair towards semi permanent and permanent structures made of stone and wood.



A Brokpa pastoralist sharpening his knife outside a temporary shelter.

The Pastoral Cycle

The annual movement of Brokpa pastoralists follows a cyclical yet flexible pattern, governed by both ecological factors and cultural frameworks. While mobility is generally divided into summer and winter phases, the timing and duration of stay in each pasture depend on a variety of conditions, including vegetation availability and religious calendars.

For example, Brokpa households in Mago typically remain in their winter settlements (Yuri or Duri) from November to April. Between April and May, they move to transitional grazing areas such as Chuna or Wole. From there, they gradually ascend to higher altitudes, often staying for days or weeks at intermediate sites before reaching their primary summer pastures. This upward movement continues through the warmer months, and by late October, they return to their winter grazing areas, retracing their original route. This seasonal migration spans roughly six months of continuous movement between a series of known grazing locations.

Although these movements are seasonally structured, the precise timing is influenced by environmental indicators and cultural practices. As one Brokpa noted, “The duration of stay at each location depends on the condition of the grass”. Decisions on when to move are often based on perceived and observed grass availability and are guided by the Tibetan Buddhist calendar, which designates auspicious dates for departure and arrival.

There are also regional variations in migration patterns. Brokpas in Tawang typically begin their movement between late May and June and return to their winter encampments by late October. In West Kameng district, the general timeline is similar, but there are nuanced differences. For instance, Brokpas who keep both pure-bred yaks and hybrid yaks stagger their migration. Purebred yaks, less tolerant of rising temperatures, are taken to high-altitude pastures earlier. One family in Lubrang village exemplifies this: the elder brother and his wife migrate

with the yaks in May, while the younger brother and his wife follow with the hybrid yaks in June.

Furthermore, Brokpas of West Kameng often migrate across greater distances compared to their Tawang counterparts. Some households from Lubrang and Nyukmadung travel as far as Luguthang, one of the highest and remotest grazing sites in Tawang, located between Thingbu and Mago and accessible only on foot. These long-established migratory routes are considered hereditary and are protected by customary

norms. Changing a route is not a unilateral decision; if a Brokpa wishes to graze in a new area, they must seek permission from those who hold rights to that land. In cases where the desired grazing site lies outside their own village jurisdiction, approval may also be required from the headman of the concerned village. This structured but adaptive pastoral system underscores the Brokpas' deep ecological knowledge and long-standing social governance over rangeland access, shaped by both tradition and environmental realities.

Access to Pasture

Brokpas traditionally have access to expansive pasture areas, historically maintained through specific ecological practices. One such method included the application of aconite root extract to tree trunks after ring-barking, a practice intended to expand or maintain pasturelands.

However, the creation of new pastures has largely ceased. This is mostly due to administrative and spiritual practices restricting felling of trees. Contemporary challenges such as infrastructure development, including road construction and land fragmentation, have significantly reduced the size



Brokpa families that have pure bred and hybrid yaks stagger their migration to higher altitude summer pastures. Pure bred yaks, less tolerant of rising temperatures, are taken to high altitude pastures earlier and are followed by hybrid yaks.

and quality of grazing areas. Additionally, the decline in traditional burning practices has led to an increase in invasive species and weeds. These shifts have compelled many Brokpas to rely increasingly on market-based feed and fodder to support their herds. This decreases profit margin and increases input costs.

Despite these pressures, pasture management continues to be governed through customary systems. Each Brokpa follows a designated migratory route and is expected to confine their livestock within defined boundaries. Shared use of pasture is common, but deviations from agreed routes or unauthorized grazing can result in penalties, typically enforced by pasture owners and, in case of dispute, village heads. These fines are imposed in cash or kind and serve to maintain order and sustainability within the pastoral system.

The omnipresent Indian Army

The presence of the Indian Army is widespread across Arunachal Pradesh, including its most remote and sensitive border regions such as Tawang, which lies adjacent to the Line of Actual Control (LAC) with China. As one resident of Mago noted, “Five years ago we could go in and out of Tibet and vice versa, but today the Indian army is everywhere”. This sentiment is commonly echoed by those living in villages close to the international border.

Following the 1962 Sino-Indian War, the Indian state shifted away from its earlier policy of “non-interference,” as articulated in Verrier Elwin’s *A Philosophy for NEFA* (1957), and significantly expanded its military presence in the region. As historical accounts suggest, “As the Government realised the strategic importance of NEFA, particular emphasis was laid on the development of infrastructure in the hitherto neglected region.” This expansion brought with it roads, employment, and access to markets. Today, Tawang boasts some of the best road infrastructure in Arunachal Pradesh,

Entry into pastoralism is also regulated. New aspirants must approach established Brokpas or pastoral unions to request access to a grazing route. If existing herders determine that the pastures can sustain an additional herd, they may grant access; otherwise, the applicant is directed to alternative routes. In Tawang, such decisions are often formalized through village level Brokpa meetings, where the allocation of routes to new pastoralists is collectively determined.

This system of communal negotiation and enforcement reflects the Brokpas’ continued reliance on customary institutions to govern pasture access, ensure ecological balance, and manage intra-community relations in the face of modern transformations.

largely due to its strategic geopolitical location. The Indian Army is generally held in high regard by the local population, viewed as both peacekeepers and protectors.

In more remote locations, the army’s presence brings them into regular interaction with the Brokpas. These interactions are typically cordial and mutually beneficial. For example, the army in high-altitude regions has traditionally relied on pastoralists for essential supplies such as ghee, while pastoralists, in turn, have benefited from free rations or exchanged services for goods. However, as the army expands into increasingly remote areas, the demand for land—both temporary and permanent—has intensified.

While local Monpas, including Brokpa, are generally accommodating of the army’s land requirements, often because compensation is provided at the village level where land is governed under customary systems, tensions do arise. These

include the fragmentation of traditional rangelands, the introduction of permit systems to access army-controlled areas, and occasional conflicts involving army personnel. For example, routes between Tawang and the Bomla Pass, previously used freely by Brokpa herders, are now subject to permits and surveillance. Additionally, in some cases, Brokpas grazing animals on land now under defence jurisdiction are prohibited from constructing permanent shelters or are abruptly asked to vacate, depending on the discretion of individual officers.

The practise of contract herding

Unlike other parts of India where contract herding has emerged as a significant economic component within pastoralism, the practice remains limited in scale in Arunachal Pradesh. This is despite changing livelihoods and decline in the number of family members actively engaged in herding. Nonetheless, instances of contract herding were observed in both Tawang and West Kameng districts, with a greater frequency noted in the latter.

In Tawang district, where 92 pastoralists from 17 villages were interviewed, only one individual had employed a full-time contract herder, a Nepali worker earning Rs.8,000 per month, with food and other basic needs provided by the employer.

Additionally, two institutions had engaged contract herders as sole caretakers of their livestock. Notably, the Chief Minister of Arunachal Pradesh employed three Monpa herders from various areas in Tawang to manage a herd of 70 pure-bred yaks. Each herder received a salary of Rs.15,000 per month, along with in-kind support. One of these herders had 15 years of experience in pastoralism, while the other two had been trained on the job over the preceding five years.

In another instance, Manjushree School in Tawang purchased 200 pure yaks for Tsethar, a Buddhist ritual in which “certain domesticated animals are granted life until death” had been performed. The school hired

One of the more serious concerns raised by Brokpas in Tawang is the frequent death of livestock due to attacks by army dogs, alongside a shrinking availability of accessible pastureland. Despite these issues, Brokpa communities continue to express loyalty and deference to the Indian Army. They remain appreciative of the infrastructure and surplus supplies that the army provides and continue to navigate these changing dynamics with a combination of pragmatism and resilience.

six contract herders, divided into two groups, while each group was responsible for 100 yaks. Each group was led by a Monpa, receiving Rs.10,000 per month, while the remaining members were young recruits from Assam and Meghalaya.

In places such as Mago, the outmigration of younger populations for education or wage labour, in light of increasing restrictions near border areas and scarcity of opportunities has led to a deepening generation divide. The youth display a lack of interest in traditional pastoral practices. As a result, aging pastoralists increasingly care for herds owned by their children or relatives.

Additionally, informal arrangements between pastoral and non-pastoral households are becoming more prevalent. In these cases, households that have exited pastoralism entrust their animals to active pastoralists during the summer months. In return, the dairy produce—primarily butter and chhurpi (cheese)—is shared, and the owners contribute to the cost of feed. In Thingbu, according to the ‘Tsorgan’ (village head), there were 30 Brokpas, but practicing Brokpas confirmed that there were only 19 active Brokpas. The remaining households had delegated herding responsibilities through such informal contracts.

These internal arrangements are based on mutual trust within a tightly knit community and serve dual purposes: they supplement the income of active pastoralists while allowing sedentarized households to maintain eligibility for pastoralist-focused government schemes—such as the NRC’s feed subsidies and the Veterinary Department’s livestock shelter assistance—by remaining on official records.

Contract herding as a means of augmenting or substituting family labour was more commonly observed in West Kameng, particularly in Dirang circle. In most cases, the herd owners are engaged in non-pastoral livelihoods. For example, a Tsorgan from Lubrang village, residing in Rama Camp (25 km from Dirang), operated a sand and stone mining business while hiring a contract herder to manage his livestock.

Outmigration

Pastoral youths are increasingly migrating to bigger towns and cities, in search of better education and jobs. For example, a young Brokpa youth from Jang moved to Itanagar to join coaching classes to prepare for government jobs. This trend threatens the labour crisis, in the absence of contract labourers

and an aging workforce within the system. In spite of challenges, Brokpa parents insist on the importance of educating their children. Given the often remote locations and mobile nature of their lives, most children in pastoral households are sent to residential schools.



The school in Lagam village has closed due to a lack of resources. So the kids go to Thembang village for preliminary studies in a residential school; reaching there requires walking through forests for around 11 kilometres.

Declining numbers of yak

According to the 2021 Livestock Census, the yak population in Arunachal Pradesh increased from 14,061 in 2017 to 24,075 in 2021, reflecting a 71% rise (Department of Animal Husbandry and Dairying 2021). This upward trend contrasts with patterns observed in other yak-rearing regions such as Ladakh and Sikkim, where declines in yak populations have been recorded. However, among the Brokpa pastoralist communities in Arunachal Pradesh, there is a widespread perception that both the number of yaks and active herders has declined over the past two decades, with more pronounced reductions in the last five years.

In Jang, for example, Brokpa herders recall a time when the village was entirely pastoral. As several informants noted, “Jang was a complete Brokpa village,” referring to a period when over 40 individuals were engaged in full-time yak herding. Today, however, only 29 herders remain. This decline, despite an increase in the number of households in the village, suggests a broader process of sedentarisation underway among the Brokpas.

Similar dynamics were observed in villages such as Mago and Lubrang, located in the Tawang and West Kameng districts respectively. In these communities, the increasing availability of alternative livelihood opportunities has encouraged younger members of Brokpa households to pursue employment in other sectors. This shift contributes to income diversification and, in some instances, to sedentarisation. Nevertheless, pastoralism is not entirely abandoned; rather, it is reconfigured through practices such as part-time herding or contract herding. As discussed in greater detail in the case of contract herding, some households now maintain their association with pastoralism through informal arrangements in which livestock are managed by a smaller number of full-time herders.

This transition is further evident in discrepancies between official village records and actual numbers of practicing pastoralists. In the Thingbu circle of Tawang district, for instance, the village head reported the presence of 30 Brokpas, while Brokpas



Pem Tsering milking a yak in a high altitude forest in West Kameng district. These animals are actually a hybrid of yaks and other species of cattle, and are called dzo. The Brokpa milk them twice a day.

claimed that only 19 individuals actively practiced pastoralism. A similar case was documented in Mago, where the village head stated there were 48 Brokpas, whereas residents asserted the actual number was closer to 35. The remaining households, it was explained, had made informal agreements with practicing herders: “Our animals go with them during the migration season, but in winter, we take care of them ourselves.”

Across these communities, Brokpas consistently report a decline in their numbers and in active pastoralism. In Mago and Lubrang, which are among the last remaining Brokpa-majority villages, a story of transition is unfolding. Some families continue to maintain herds, but increasingly find themselves unable to rear them independently. In other cases, aging members of the household are the primary caretakers of livestock, while younger generations pursue education or employment elsewhere. These changes point toward an ongoing and uneven process of transformation, shaped by sedentarisation, economic diversification, and intergenerational shifts in livelihood strategies.

Among the Monpa communities, sheep hold significant cultural and utilitarian value. Traditionally, sheep wool was used to produce both men’s and women’s clothing. Shepherds, referred to as Yeng-pa (yeng meaning sheep and pa denoting person) were integral to the agro-pastoral economy. Historical accounts also reference the practice of mixed herding, involving both sheep and yaks, particularly in the Tibetan foothills. However, the practice of sheep herding has nearly disappeared from the region today, replaced by the widespread availability of cheaper, industrially produced wool from regions such as Manali and Punjab.

Currently, there is only one known household in Tawang that continues to practice full-time sheep herding. This family, consisting of a shepherd, his wife, and son, manages a flock of over 300 Tibetan sheep. In Chandar, six shepherds collectively rear approximately 300 sheep. Beyond these few practitioners, the only other formal presence of sheep in the region exists

at a government-run sheep breeding farm in Sangti. According to farm workers, the sheep at this facility are hybrids of Merino and Tibetan breeds.

Interviews with both shepherds and Brokpas reveal several interrelated factors contributing to the rapid decline of yeng-pas in the Monpa landscape:

- Decline in traditional agriculture, leading to reduced availability of fodder during winter;
- Enclosure and conversion of agricultural lands for cash crops and horticulture, particularly in West Kameng district;
- Imposition of grazing taxes across village and districts;
- Increased availability and affordability of industrial wool from Manali and Punjab;
- Ongoing fragmentation of grazing lands owing to infrastructure development;
- Absence of targeted governmental support and policy interventions for sustaining sheep herding.

Rinchin Tsering, a shepherd from the Jang circle in Tawang, currently manages a flock of 300 Tibetan sheep. He shears the sheep three times annually, which yields approximately 150 kilograms of wool per year which he sells at a rate of Rs.500 per kilogram, generating an annual income of Rs.75,000. This sum sustains a household of three, all of whom are engaged full-time in sheep herding. Notably, this figure does not account for personal expenditures or the cost of fodder, which further raises questions about the economic viability of this livelihood.

The practice of sheep herding, once widespread and culturally embedded, is on the wane and the current trajectory suggests an ongoing decline shaped by intersecting economic, environmental, and policy-related pressures. Economically, sheep herding has become increasingly unsustainable in comparison to yak pastoralism. The influx of mass-produced wool exerts downward pressure on the prices that local shepherds can command, rendering the traditional practice financially marginal. And if these are to be preserved, then government intervention without destabilising the cultural tradition of the Monpa can offer a roadmap.



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