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Caught in the Crosshairs of Change

A project report focusing on the
Changthang Plateau, Ladakh

Tenzing Palmo
Chamba Tsetan



**Centre for
Pastoralism**

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**Caught in the Crosshairs of Change: A project report
focusing on the Changthang Plateau, Ladakh**

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Introduction

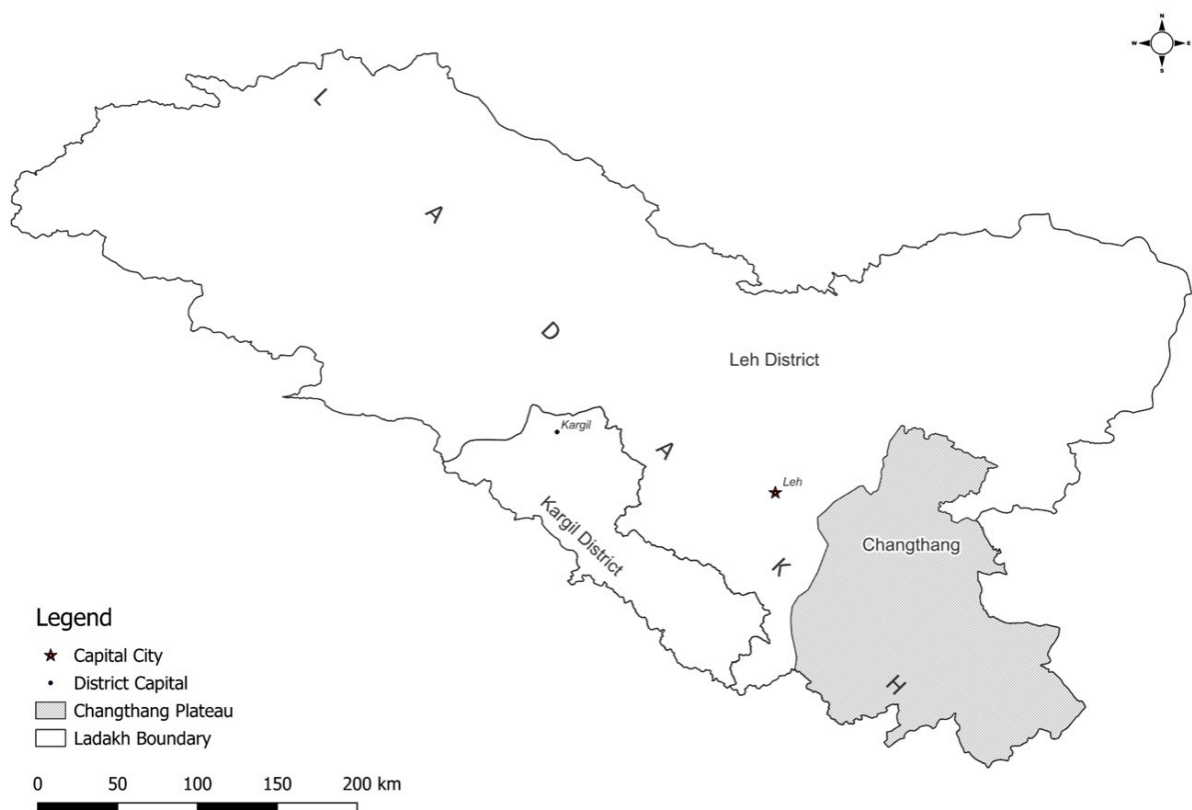
At over 13000 feet, the Chanthang landscape is both shelter and storm for the Changpa nomads. As development makes inroads, can pastoralism survive as an economically viable activity?

To answer this, the Centre for Pastoralism began work in Ladakh in 2023, with a baseline socio-economic survey to understand the socio-economic status of the high altitude Chanthang landscape in the Tibetan plateau and the factors driving urban migration. The survey of 400 households across 17 villages revealed that pastoralism continues to be viable for herders with herd sizes above 250–300 animals, and where 80% of household income primarily comes from pashmina wool and meat sales. Marching along with pastoralism is migration influenced largely by access to better education, army employment, and tourism-related work, which provide stable, monthly incomes. This trend is resulting in villages in the landscape to adopt semi-nomadic lifestyles. Through our research we have tried to map the migration routes across the Chanthang landscapes indicating the duration and the activity that takes place at each location at the migration halt points. These maps will now be converted into a digital format and its interactive interface will help users to understand Changthang and its migration patterns. With our partner WWF India, we conducted community consultations in the villages to understand the vision and aspirations of the inhabitants of this landscape. The inputs from these community consultations across Changthang are now being consolidated into a Vision Document for the landscape, to be adopted by the LAHDC Leh, outlining the roadmap for regional development.

Nestled amidst the Trans-Himalayan ranges, Ladakh is a cold desert, bordered by the imposing Karakoram range to the north and the Ladakh and Zaskar ranges to the south. The word 'La-dags' means the land of passes. Ladakh is bordered by Tibet in the east, Lahaul-Spiti valley in the south, and the valley of Kashmir, Jammu and Baltistan in the west. The valleys are formed by the Shyok, Indus and Zaskar rivers. Due to its location in the rain shadow region of the Himalayas, Ladakh receives minimal precipitation, amplifying the arid and rugged topography of the region. Ladakh's terrain is punctuated with imposing high-altitude steep mountains, deep rivers, and winding valleys restricting agricultural activity to the lower plains located along the rivers in the valley. In the higher altitude areas like Changthang in the eastern part of Ladakh, animal husbandry and pastoral nomadism is the main occupation and source of livelihood. The Changthang region is home to the Changpas who produce the world-famous Pashmina.

Changthang

The Changthang plateau lies in south-eastern Ladakh. Interestingly, the term 'Changthang', means the 'Northern Plains', even though the plateau lies in the south-east. This is because historically, the Ladakhi Changthang is part of a much larger landscape extending from Ladakh in the west to north and central regions of Tibet and on to the province of Qinghai in south-eastern Tibet. The region of Changthang extends from Durbuk with the Chang Chenmo range in the north and the villages of Demchok, Koyul and Chumur lining its south-eastern borders and the region of Rupshu, Kharnak and Gya as the western limits. Changthang can be reached via the Taglang La pass in the south via the Leh-Manali highway or via the Changla Pass in the north. The part of Changthang which is discussed in this Atlas is the north-western region of the broader Changthang; this region now lies within the territory of India.



Map 1: The region of Changthang (in grey) as part of the larger Union territory of Ladakh

Pashmina Trade

Changthang's importance historically stemmed from pashm—the fine undercoat of the Changthangi goat that develops in winters, known as pashmina. In their travelogue of the 1820s, Moorcroft and Trebeck mention that “Chan-than is the chief resort of the shawl wool goat, and is also the pasturage of numerous flocks of sheep, whose wool is an article of trade” (363-4). Presently, in the international market, India contributes less than 1% of the global pashmina production. The Changthang produces a remarkably fine pashmina, with a diameter of 10-12 microns, lower than, and therefore better, than pashmina produced in parts of China, Mongolia and elsewhere. And while pashmina has become central to the socio-ecology of Changthang and the Changpa community, the pashmina produced in the Changthang is consumed locally, and is yet to find wider appreciation outside India.

Historically, one of the primary reasons why the ruler of Jammu, Maharaja Gulab Singh wanted to capture Ladakh in 1834 was for this particular fibre—pashmina. Ladakh, as stipulated in the Treaty of Tingmosgang (1684), had been enjoying a monopoly over the pashmina and wool trade between Western Tibet and Kashmir. Only Ladakhi traders, and that too some specific traders called the mkhar-tsongpa (palace traders) were allowed to enter the western region of Tibet to take the fibre. Pashm wool from western regions of Tibet were picked up by the palace traders who would then drop it at Spituk in Leh. From there, another set of merchants from Kashmir, the Tibet Baqals, would carry the pashm into Srinagar via the Zoji-la pass. Srinagar had an extensive industry which processed this raw fibre into shawls and other textiles which were part of a larger trade network that spread across Central Asia and through to European and Russian markets. Woven Pashmina is internationally known as ‘cashmere’ since much of the finished products were produced in Srinagar. There was a huge demand for these shawls by the nobility and elites of the Mughal empire and also of other countries. Shawls made with pashm-wool were often presented

as gifts to guests, officials and authorities as a ‘mark of esteem’ (Warikoo 1996: 115). The shawls produced in Kashmir reached Central Asia from the Leh-Yarkand route or via the Punjab-Afghanistan-Bukhara route. From there, the shawls were further sold to Russian and European markets (Warikoo 1996: 115). Following the 1950s closure of the Tibet trade routes, the Kashmir shawl industry began relying on pashmina from the Indian side, leading to a sharp rise in prices and a shift in herding patterns toward more goats than sheep. Today, Changthang produces 75–80% of India's pashmina, considered among the world's finest.



Before the closure of the Tibet trade routes in 1950s, pashmina was transported from Western region of Tibet to Leh and was carried into Srinagar via the Zoji-la pass, where it was processed into shawls and other textiles to be sold in Central Asia, Russia and Europe.



Today, Changthang produces 75–80% of India's pashmina, considered among the world's finest.

Changpa Pastoralism

Nomadic pastoralism, the seasonal movement of herders with their livestock in search of pasture and water, is the backbone of life in Changthang. The Changpa trace their ancestry to Tibetan nomads and have practiced this sustainable livelihood for centuries, adapting to Ladakh's harsh, high-altitude environment. An important thing to note here is that while the term 'Changpa' refers to anyone from Changthang, within the region itself, the term holds an additional connotative meaning. 'Changpa' specifically refers to the people who herd animals and move with them to various locations in a year. The term used for those who do not engage in herding is 'Rongpa' and is mostly used for the areas closer to Leh where agriculture is practised.

Historical records on Changthang are limited, but early travel accounts describe black yak-hair tents, large herds of goats, sheep, and yaks, and a vibrant pastoral economy. Agriculture and animal husbandry were the traditional occupation of the families of Ladakh. In the lower, fertile valleys of Ladakh, agriculture was predominant and the families

relied on it for their sustenance. They also reared domestic animals like yak, dzo, donkeys, horses, sheep and goats. The harvest from agriculture was used for self-sustenance and the surplus, if any, was exchanged for other household products like salt or wool from the Changpas of Changthang. In most parts of Changthang, since agriculture is limited to some small areas, most families engage in pastoralism. In the times of inter-regional trade happening through Ladakh, the animals that the locals owned played a central role. They were the carriers of goods across the mountains and valleys. Animal husbandry allowed for trade in such terrain to exist. Pastoralism and animal husbandry is still practised in parts of Ladakh. Traditionally, the Changpa were entirely self-reliant—using livestock for food, clothing, shelter, and transport. Yak hair provided material for rebo tents, dung served as fuel, and dairy products sustained them through the long winters. Even today, the Changpa continue their cyclical migration—10–12 times a year—guided by traditional rules (tsa-thrim) and local leaders (Goba), maintaining one of the most resilient and sustainable pastoral systems in the

Himalayas. With changes in the socio-political fabric of Ladakh as a region, pastoralism too is undergoing a change.

When Ladakh was opened to the outside world in 1974, much of Changthang was restricted and could only be accessed with permits. Gradually in 1994-95, parts of Changthang were opened. Prior to the early 1990s, most families in Changthang were engaged in pastoralism. The Changpas raised a variety of livestock comprising sheep, goat, yak, horses, cattle and mules. The Changpas would move with their animals to different locations in a year within their

regions. With the opening of Changthang to the outside world, new alternate means of livelihood were also introduced. In addition to pastoralism, people in Changthang are engaged in agriculture, labour (GREF, BRO), tourism (home-stays, trekking, taxi drivers) and other public or private jobs. Majority of the households usually generate income from a mix of all these livelihoods. Out of the 428 families surveyed, around 80 per cent of families earned income from both pastoral and non-pastoral sources.

Patterns of Migration

Changthang is characterised by extremely cold climatic conditions (with temperatures dipping down to -30°C) with sparse vegetation. Being a plateau with stretches of arid land with low rolling hills, there is not much difference in altitude and the whole region of Changthang experiences a similar climate. Owing to this, there is only one short growing season. Therefore, the herders have to strategically plan their movement to effectively avail the limited grazing resources. Migration in the Changthang plateau allows for sustainable resource utilisation which makes life possible for Changpas in the harsh and dry climatic condition. The Changpas make seasonal migrations with their herds in order to access faraway rangelands and resources.

Most of the pastures in Changthang are owned by the community. The Changpas can be differentiated from the village they come from and each village would have a separate migration route and distinct pastures they access. They migrate within specific regions which are traditionally allocated and demarcated. Most pastoralists follow the same route and access the same pastures every year determined and decided collectively through the local governance system. The goba (village head) calls the yulpa (village assembly) for a collective meeting to deliberate and reach decisions on pastoral routes and changes in



Herders plan their movement strategically in order to utilise the limited resources available during the short growing season.

the seasonal movement. There are alternate routes as well which are taken by the pastoralists in case of sudden and unprecedented changes like natural causes such as drought or snowstorm. The seasonal

migration within one's own region requires careful planning and consideration of various factors like the availability of pastures, distance from the home village, access to water, the altitude, climate and others. The Changpas also practice an older system of rotational grazing, which protects the pastures from the risk of being overgrazed. Just as the community takes decisions on pastoral routes, the allocation of pastures for rotational grazing is also a collective decision.

The Changpas do not enjoy differences in seasons like their counterparts in Himachal Pradesh, as the whole region has the same season at any point. Changpas make horizontal migrations across large stretches of land in their region to access rangelands in their various phases of growth. In the summer months, pastoralists take their herds to higher altitudes to make the most of the vegetation available there which becomes inaccessible in the

cold winters. Most of the time, the summer pastures are the farthest from their permanent dwellings. During autumn, they make their descent towards lower elevations and in the winter months, they graze their animals in the vicinity of their home villages. Such cyclical migration within different pastures prevents overgrazing of any particular area and ensures availability of vegetation in the coming year.

Unlike the goats and sheep, bigger animals like Yak and horses are left in the high altitude pasture area and only brought down when needed. Horses and Yak would normally be the carrier during the migration in the past and have been replaced by cars. Horses are brought down in some communities during the sowing and threshing season, and were often used in farming until very recently.

Migration and Herding

Historically, Changpa pastoralists have always been on the move, and the concept of a 'home village' is a recent one; this is evident from the non-existence of well-built housing structures from the past along the Changthang plateau except monasteries. Migration is a community act, where the entire village would move as a caravan helping each other, where old people and young kids, those who are not able to walk in the family were often seen using Yak and Horse to carry them, similarly the small, weak and injured goats and sheep were also transported on Yaks. All their rations and heavy tents made of yak hair called *Rebo* were also transported on animals while all the containers used for packing rations would mainly be made from goat and yak hair. In the 70s, when formal education made its foray into Changthang, the school— represented by a teacher, a blackboard and a carpet— moved along with the herd. Life was nomadic as everybody moved together in a herd. Young herders currently herding are mostly from the time where they

had the opportunity to be in touch with pastoralism and its practices, and opportunities were lacking.

Out of the almost 3000 households in Changthang, there are around 500 pastoral households who actively migrate with their herds. The households can be divided into four categories: pastoralists, sedentary pastoralist, sedentarized pastoralist and contract herders. Pastoralists are those who own and herd their own animals; sedentary pastoralists own animals but do not move with their herds; sedentarized pastoralists are those who no longer own any animals; and contract herders are those who do not have animals of their own but manage herds for other families with animals. These pastoral households are concentrated in the villages of the Nyoma and Durbuk block. There are households in the Rong-Chumathang block who rear animals but the numbers are so small that these families do not migrate with their herds. For the present study,

around 428 families from the Nyoma and Durbuk block were consulted and surveyed. Out of the 428 families, 221 families are pastoralists who actively move with their herds; 178 families who own some number of animals but do not herd, 2 contract herders and the rest of 27 families neither own any animals nor herds.

During the 1960s, it is said that the wealthier households would have herds of up to 1000 sheep and goats, around 100 yaks, and 15 horses. These days, the average herd size is around 155.99 animals with almost no yaks or horses. There can be herds of 50-60 animals and can go up to a herd of 750-800 animals too. A major portion of their herd consists of the Changthangi goat which gives the highly economic fibre, pashmina. There are at least two

Changthangi goats for every Chang-lug (Changthangi sheep) in a herd. The number of yaks has declined dramatically due to their reduced use in transport, the diminished relevance of draught power, and the severing of the trade and migratory relationship with Tibet. Earlier, yaks were herded alongside other livestock. But these days, because of the decreasing numbers, the yaks are either left on their own or the yaks of the village are pooled together and herded by one or two people. Therefore, shearing of yak wool is difficult and inconvenient. Moreover, most of the families have opted for the modern, easier and more convenient tent instead of the traditional tent (rebo) which is made with yak hair. Unlike pashmina, whose market is regulated by the Cooperative Society, other fibres do not have such a market or a body to regulate.



Nomads migrating to a new campsite. The yak in front carrying heavier belongings including the tent; they are followed by horses.



The winter months pass in caring for lambs and goat kids which are at a risk of high mortality due to both by cold and malnutrition. After keeping them with their mothers for several months in the winter, these animals are ready to be taken separately for herding.

Winter in Changthang

Pastoralism is both a way of living, and is also a way of making a living. The nomadic lifestyle is integrated into the migration that pastoralists are engaged in. Their pastoral movements coincide with and are accompanied by various activities. As autumn sets in, the mating season for the animals begins around September to October. One or two bucks are brought to impregnate the fertile female animals. There is a saying amongst the Changpas, 'lug lnga ra drug' which refers to the gestation time for sheep and goats. The sheep take about five months and the goats take around six months. The lambs are born in the months of January and February and the goat kids are born a month or two later. The winter months pass in caring for the baby animals, these oftentimes lead to high mortality caused both by cold and malnutrition. The families also get to engage in other activities during winter months as the workload is relatively lighter than summer months. Some women take out their backstrap looms outside their tents to weave. In earlier times, it used to be a common scene in the landscape, however, nowadays the weaving culture is also on decline. Much of their diet during the winter is meat-

based. At the start of the winter or towards the end of autumn, pastoralists kill some of their animals. Their meat is then dried up to be used for the whole winter. One of the major sources of income for the pastoralists is the sale of livestock which happens during the autumn and winter months. During the summer months, the animals are fed well and they attain considerable growth in both height and weight. These animals at their peak weights are then sold-off in the winter.

Yak meat is considered as celebratory meat and mostly consumed during Losar (Tibetan New Year). Generally two or more families kill a yak together and divide up the meat of the animal with the person who owns the yak getting the best parts.

After keeping the lambs and goat kids with their mothers for several months in the winter, these animals are ready to be taken separately for herding. The families exchange their lambs and goat kids. It is done to make the animals get used to not being around their mothers and its milk. In the summer

months, the female animals are milked twice a day, once before they are taken out for grazing and once after they return. In Changthang, the pastoralists mostly use goat milk for household consumption. The milk is heated, churned into butter and dried cheese which is used in the winter.

As the months of June and July approach, the wool of the animals is ready to be sheared. The two main fibres of the Changpas are sheep wool and pashmina from the goats. The families take rounds to shear the sheep wool or hire labour to do it. It can take a day or two for a big herd of sheep to be sheared. Usually, family members chip in and at times when the herd is large the *phaspun* lends a hand. As for the pashmina, it is a gradual process wherein the herder first collects

the pashmina which naturally falls off and then they comb the rest of the pashmina. Once light, the animals are given a medicinal-bath to prevent skin-related diseases. Handy tools which in the past were made of horns, and later by wood have given way to stainless steel made combs which are more efficient. The traditional horns had the tendency to leave some fine inner coat behind which is now taken care of by the steel combs.

In the close-knit phaspun, prayer sessions and religious activities act as glue and serve as an anchor that keeps them rooted in a landscape that is extremely harsh. It is also their shelter.



Present-day herds have no yaks or horses, and twice the number of Changthangi goats than sheep.

Pastoral Economy

In Changthang, pastoralism accounts for at least 50% of the economy, if not more and is the major contributing factor towards the Changthang economy. As the area of arable land is less, agriculture is minimal and mostly for subsistence. A greater share of the Changthang plateau with its vast expanse of rangeland is used as grazing pastures for livestock. Livestock rearing is, therefore, one of the main economic occupations of the Changpa community. However, the number of pastoralists is on the decline as people leave this profession and sedentarise or migrate to Leh. A herder in Changthang earns an average income of INR 1,91,462.09 from pastoralism. Majority of their income comes from pashmina and sale of livestock. Other sources of pastoral income include the sale of milk, wool, skin and leather of the animals and the sale of manure.



Wool from their goats are the wealth of the shepherds in Ladakh.

Pashmina is one of the finest luxury fibres found in the world. It is also called 'cashmere' as it was through Kashmir that the processed fiber was sold to the international market. Changthang produces one of the finest qualities of this fiber, with a diameter of approximately 10-12 microns. Pashmina is the only fiber which brings a considerable amount of income for the pastoralists. Income from other fibers like sheep wool, yak wool, yak hair and goat hair is almost negligible. A kilogram of sheep wool is sold at a stagnant average price of INR 182.54/kg. Much of the sheep wool is used by the pastoralists themselves for weaving carpets, sweaters, socks and blankets.

An average adult Changthangi goat can produce up to 300-350 grams of pashmina. The average price of raw pashmina is around INR 3,543/kg and it can go up to INR 4,500 in some cases. Out of 401 families with animals, 334 families produced a total of around 7,825 kilograms of pashmina. Most of the pashmina produced in Changthang is sold to the Cooperative Society which de-hairs the fiber at their center in Leh and supplies it to other outside buyers. However, there are families in Changthang who sell their produce of pashmina to other private buyers mostly from Leh. Out of 7,825 kilograms of pashmina produced last year, around 7,546 kilograms were sold, almost all of them to the Cooperative. Amongst those who did not sell their entire production of pashmina, some said that the price quoted by the Cooperative Society was less whereas others said that they would sell their produce to private buyers. Some of the herders also expressed their disappointment in the functioning of the Cooperative Society in terms of delay in payments or advances, difference in rates, opacity of the institution itself amongst others.

Second to pashmina, sale of livestock for meat is another major source of income for the herders. On average a family would sell at least some portion of their herd to control the herd size. The animals

can be sold for meat, but they can also be sold to other pastoralists. Out of 401 families, 224 families

generated an average income of INR 163816.21 which is 55% of the total pastoral income.



The majority of income for herders in Changthang comes from pashmina and sale of livestock.

Herd size	% of HH income from pastoralism	% of HH income from non-pastoral sources
1-100	11.3	88.7
101-200	68.5	31.5
201-350	73.1	26.9
351-500	96.8	3.2
500+	98.1	1.9
Grand Total	48.1	51.9

Table 1. Percentage of household income from pastoral and non-pastoral sources in Changthang.

An adult sheep can fetch an average amount of INR 8,040.59 but the prices can differ depending on its weight. A one-year or older goat is sold at an average price of INR 5544.46. The male animals and the aging animals are sold mostly for meat whereas lambs and goat kids are sold to other herders. A lamb or a goat kid is sold for around INR 2799.78. Sale of livestock happens during the winter months only. Earlier the Changpas enjoyed a monopoly in meat supply in Ladakh as other sources of meat, like in Srinagar, would be closed off during the winter. However, these days, meat from Changthang is facing competition

from that of Srinagar as the roads remain open during the winter months too.

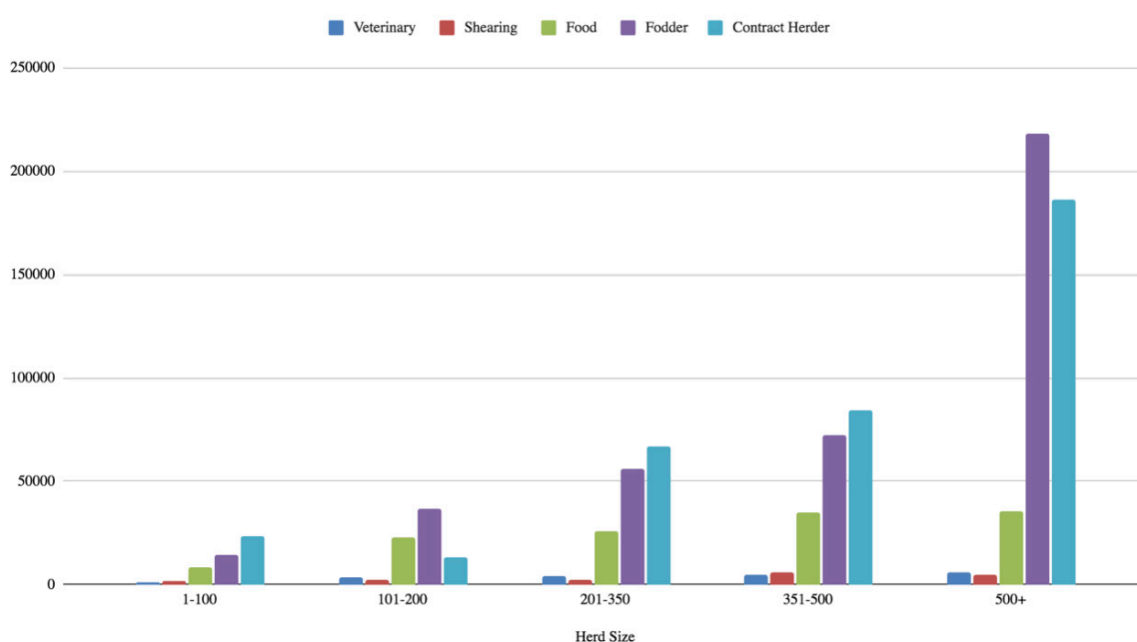
The pastoral families earn very little from animal hides and skin. They sell it when there are buyers. It is mostly sheep, goat and lamb skin which is sold. A sheep skin can be sold for an average price of INR 275 and goat skin at INR 357.85 and lamb skin at INR 582.35. Lamb skin fetches a higher price compared to other skins due to its portability and heat. Lamb skins are made into back-warmers. Out of the 401 families, not one family sold any piece of yak leather.

Herding Expenses

For a herder, a major part of whatever income they earn in a year is invested back into the herd. A herder incurs expenses on new purchase of animals, accessing different pastures and for the maintenance of the present herd. Not all of the families purchase new animals every year since a herd would naturally increase its number with newborns. However, there

are some families who purchase animals to increase their herd size out of various reasons and some new entrant families who wish to engage in pastoralism. Much of the pastures in Changthang are owned by the community itself. Therefore, expenses on pastures are relatively lower. There are a few instances where herders pay some amount to access certain pastures

Breakdown of Herding Expenses



Graph 1. Variation in herding expenses on herd size

either during migration or for the winter months. A significant part of the income of a herder family is invested back on herding activities like fodder expenses, animals' health, ration for the herder, camping equipment and labour if one has employed a contract herder. Herding expenses increase as the herd size increases. Out of these herding expenses, a larger share is spent on fodder and labour for every

herd bucket except the 101-200 bucket. This could be due to several reasons. Most of the families with 101-200 animals would be pastoral families who actively move with their herds and a herd of such numbers is quite manageable by just one herder. In the case of a smaller herd bucket (1-100), most of these families have kept their herds with their relatives or kins, therefore, they incur a higher labour cost.

The Economy of Goat Hair and Manure

Our research and community consultations also highlighted two underutilized pastoral resources, namely goat hair and manure. The goat hair was used to make ropes, carpets and bags historically, but introduction of polyester and nylon has led to this tradition's decline, which has resulted in goat hair being discarded as waste. However, it has renewed potential as a natural insulation material, blending traditional craft with modern innovation as experimented by our regional research partner HIAL (Himalayan Institute of Alternatives, Ladakh). They have long been championing passive solar building construction in the cold desert area of Ladakh. We were able to peg goat and sheep manure to generate Rs 19 crore annually (as per the 2024 livestock census), given the high demand in Ladakh's agricultural belt alongside local government vision of Organic Ladakh 2025, which so far remained an unfulfilled dream.

The Centre for Pastoralism (CfP), is currently supporting two entrepreneurs to commercialize manure for use in organic farming. Manure in the form of rikpa (bricks of manure) and rilma (wastes of goats and sheeps) are used as fuels for fire in the winter. A herder family can earn an average income of INR 25800 from selling manure. A sack of rikpa or rilma can fetch up to INR 100-200. Sering Stobdan and Urgen Damdul, residents of Kharnak are currently earning an income from selling manure. Tsering



The traditional use of goat hair in making ropes, carpets and bags has declined after the introduction of polyester and nylon. However, it has found renewed potential as a natural insulation material.

Stobdan owns approximately 600-750 livestock while Damdul has around 700-800 livestock. The two households are able to load half a truck – equivalent to 500 sacks. Each sack contains 27-30 kg manure fetching them anywhere between Rs 180-Rs 200 per sack. These are usually sold in Leh and other surrounding areas.

Through integrated efforts spanning research, entrepreneurship, waste management, and traditional craft revival, CfP envisions a resilient

pastoral economy in Ladakh, driven by community participation, ecological sustainability, and renewed cultural pride.



HIAL (Himalayan Institute of Alternatives, Ladakh), our regional research partner, has been experimenting with goat hair for its natural insulation, blending traditional craft with modern innovation.

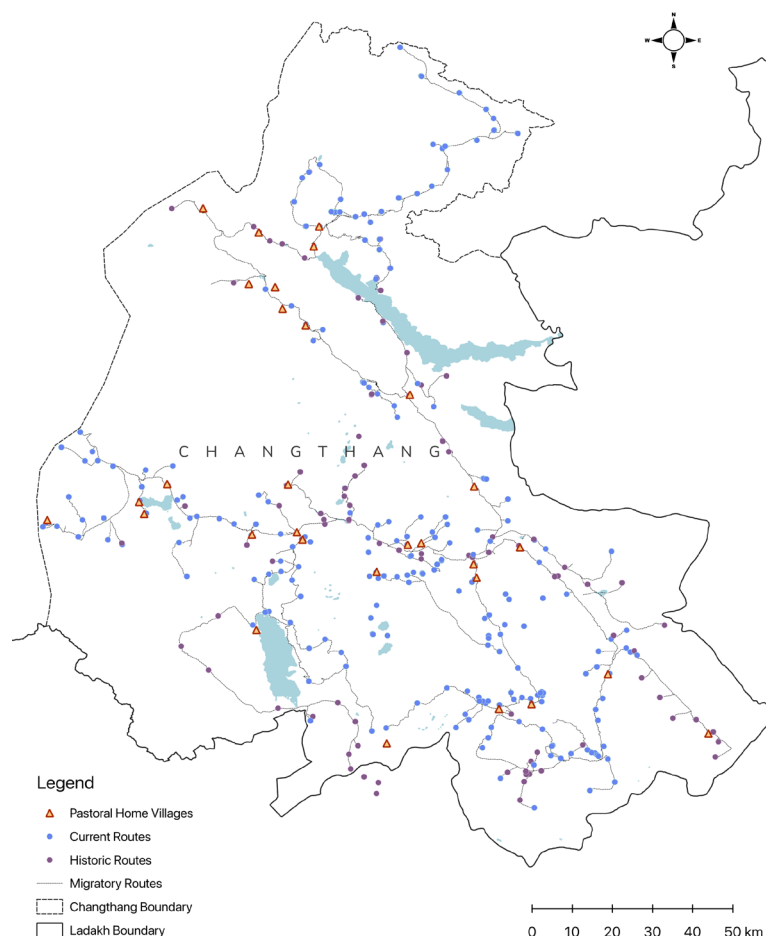


Goat and sheep manure has high demand in Ladakh's agricultural belt and is used as a fuel for fire in winters.

Migration and Modernisation

Over a period of time, drastic changes occurred in the pastoral routes in terms of duration, modes and routes taken. Changthang shares a part of the international border with occupied Tibet. As early as the 1960s, road infrastructure in Changthang was a priority from the military standpoint, and thus road networks in Changthang developed prior to other parts of Ladakh. Some of the roads overlapped with historical pastoral routes taken by the pastoralists, whereas other roadways were carved anew. The development of infrastructure enabled the use of vehicles as part of everyday life. Transport vehicles replaced yaks and horses, and paved new migration routes on concrete roads.

Due to the closure of the Tibet border, tensions have persisted between pastoralists on the Indian and Chinese sides over access to grazing land. Historically, the Changpas maintained trade relations across the frontier. However, the India–China border in this region has long lacked clear demarcation, with extensive buffer zones where pastoralists from both sides would encounter one another during seasonal migrations. In recent years, Changpa herders have also faced restrictions from the Indian Army, which no longer permits grazing in certain rangelands they previously used. Community members further contend that significant portions of their traditional pastureland are now inaccessible due to Chinese control.



Map 2. Current Alternate Routes

An Emerging Tourist Destination

In the 1990s, nearly two decades after Ladakh was opened to the outside world, parts of Changthang became accessible through a permit system. Pangong Lake and Tsomoriri Lake were among the first destinations opened to visitors. As tourist numbers increased, supporting infrastructure gradually developed, including travel agencies, tour operators, taxi services, restaurants, homestays, and small shops. A community that had previously depended almost entirely on livestock began diversifying into more settled occupations, marking a gradual shift toward sedentarization and forms of sedentary pastoralism.

Today, Changthang's high-altitude plateau is a major component of Ladakh's tourism circuit. Initially centered on Pangong and Tsomoriri, tourism in the region has expanded to include wildlife viewing, wetlands, night-sky observation, and experiences associated with nomadic culture and border landscapes. The area is home to species such as the lynx, Pallas's cat, and the black-necked crane. Changthang has played a significant role in Ladakh's broader tourism growth, particularly after the 2000s. The release of the film *3 Idiots*, which featured Pangong Lake, further amplified the lake's visibility and contributed to its popularity as a travel

destination. Meanwhile, Leh, the region's main urban hub, has seen a steady increase in hotels, guesthouses, and tour operators.

Tourism has substantially altered pastoral livelihoods. In areas such as the Pangong belt, many households have reduced or abandoned herding in favor of operating homestays, guesthouses, restaurants, or campsites. Over the past three decades, tourism has become a primary source of income for many families, reshaping both economic practices and settlement patterns.

The rapid growth of tourism has also led to significant construction across the landscape, reinforcing Changthang's status as a key destination within Ladakh. Locations such as Pangong, Tsomoriri, Hanle, and Tso Kar have emerged as prominent tourist hubs. The construction of Umling La, widely reported as the world's highest motorable road, has further stimulated adventure tourism. Recent policy decisions promoting border tourism, including the opening of areas such as Galwan Valley and Daulat Beg Oldie, are likely to increase visitor numbers while diversifying tourist destinations within the region.





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