

Ladakh Pashmina

towards prosperity and sustainability



PASHMINA POLICY

Leh, Ladakh

Ladakh Autonomous Hill
Development Council (LAHDC)

Foreword

It is a matter of great pride that *Pashmina*, one of the finest fabrics of the world, originates from the Changthang region of Eastern Ladakh. The story of pashmina is the story of this region. Grown by nomadic and semi-nomadic herders braving the harshest weather conditions, Ladakh pashmina is known for its fine micron size. The fabric has shaped the geo-politics of this region since the 17th century. In more recent times, Ladakh pashmina has largely been traded into parts of Kashmir where it has been spun and woven into products and hence acquired the name *cashmere*¹ a term more widely used to represent wool produced from regions along the Tibetan plateau, Mongolia and Central Asia.

Despite the rich history and tradition of this fabric, herding communities of Changthang who have kept the tradition of Ladakh pashmina alive, face tremendous challenges to sustain this vocation. There are questions of whether coming generation of Changpa youth will continue in this tradition or choose to move into other vocations centered in Leh. It would be unfortunate if we allowed Ladakh to lose this tradition to the forces of change. We must, therefore, address this challenge with the herders of Changthang at the center of our thinking.

Ladakh pashmina accounts for no more than 1% of the global cashmere market, with a majority of the cashmere being produced in China (75%) and Mongolia (19%) which have much larger grazing lands compared to Ladakh. Despite Ladakh pashmina's superior quality, our low market share and general market fluctuations render it difficult and less profitable for us to compete in the bulk international cashmere market. We must instead take a different approach that sets apart Ladakh pashmina as a premium product that is recognized as being of the finest quality, originating in a rich culture, and produced through highly sustainable, and conservation friendly practices. Ladakh being known globally as a haven for snow leopard conservation and tourism, there is great opportunity for creating a unique, globally recognizable brand for Ladakh pashmina as being 'Snow leopard friendly'. In 2017, working with the Nature Conservation Foundation and the Snow Leopard Trust, we piloted on an effort for Snow Leopard Friendly Ladakh Pashmina, which worked with a few Changpa herder communities to get them greater economic value for adopting conservation-friendly practices in pashmina production.

Such an approach needs to be scaled, and from a producer of raw material, Ladakh must progress to become a supplier of fine pashmina products. This will require partnerships with multiple stakeholders at local, regional, and global levels.



In December 2019, we brought together stakeholders from various groups in Ladakh, including pashmina goat herders, their political representatives, relevant government departments, youth groups, national and international partner organizations, and market experts. Through this visioning exercise conducted with support from Nature Conservation Foundation, Snow Leopard Trust, and the Whitley Fund for Nature, we worked with stakeholders representing the herders, youth and elected representatives from the four blocks of Changthang: Durbuk, Nyoma, Rong and Rupshu. Likewise we had a group representing the All Changthang Pashmina Grower's Cooperative Marketing Society (ACPGCMS), a critical stakeholder in the local pashmina sector. We also had local entrepreneurs including the Looms of Ladakh Cooperative and Lena Ladakh, who brought in a perspective of the market for pashmina products. Each of these groups undertook detailed exercises and discussed the current challenges, future aspirations and possible solutions that could help boost a locally sustainable Ladakh pashmina economy. They eventually also shared what they saw as a vision for sustainable Ladakh pashmina in the coming decade. The outputs this exercise is what has been articulated in this vision document.

I would like to take this opportunity to thank all the participants for the active contribution in this process. Going forward, we aspire to work on these suggestions to build a brand for Ladakh pashmina and connecting it to the right markets that may bring value to not just all stakeholders in the value chain, but primarily benefit the Changpa herders on whom the future of this sector lies.

Hon. Konchok Stanzin

Executive Councilor (Education, Wildlife, Sheep Husbandry)

Ladakh Autonomous Hill Development Council, Leh

¹Garrone, R. (2015). The Cashmere Journey and the Nomad Shepherds of Ladakh. A report about pashmina. RAM, Avegno (Genova). Italy. pp. 78.

Executive Summary

- **RECOGNIZING** the cultural and economic importance of pashmina to the lifestyle, livelihood and economy of Ladakh
- **TAKING NOTE** of the challenges and hardships faced by the herders, particularly the difficult living conditions while herding Changra goats and leading to a dwindling interest in this profession among the younger generation
- **ACKNOWLEDGING** the fragility of the high altitude rangeland ecosystem of Changthang and its vulnerability to climate change
- **ADOPTING** grazing practices that are sensitive to the ecological integrity of the high altitude rangeland ecosystems in Changthang and form the basis of a unique environmentally sustainable Pashmina production system
- **UNDERSTANDING** the difficulties faced by the ACPGCMS and the entrepreneurs in processing raw wool in to high quality finished products for national and international markets;
- **IDENTIFYING** the potential of Ladakh Pashmina to become one of the most valued environmentally sustainable fibres globally, by building a brand linked to the iconic inhabitant of the Changthang Rangelands - The Snow Leopard
- **PRIORITIZING** the steps to improve the inherent quality of Ladakhi raw pashmina across all stages of production - from raw wool to finished product - to support a Pashmina economy that is focused not on high volume but high value
- **DEVELOPING** an innovative vision for a socially equitable and environmentally sustainable Pashmina industry in Ladakh which is sensitive to the uniqueness of the local culture, the needs of the local communities and the fragility of the region's ecology
- **COMMITTING** to work toward the vision and objectives as a collective with representation from herders, ACPGCMS, civil society organizations, LAHDC, entrepreneurs, youth groups and government departments

Ladakh Pashmina

Pashmina is deeply interwoven with the history and culture of Ladakh. The raw fibre comes largely from the Changthang region of Eastern Ladakh, which represents the western extension of the Tibetan plateau, an important high altitude grazing ecosystem (Goldstein and Beall, 1990). The rangelands are used by Changpa pastoralists for livestock grazing. The Changpa rear a diversity of livestock including horse, yak, sheep and goat, that provide a range of products and services. Domestic goats of Changtang are the main source of Ladakh pashmina, which is believed to be the finest cashmere in the world (Rizvi and Ahmed, 2002). Ladakh pashmina is largely supplied as raw, dehaired wool in bulk to the cashmere industry, that Kashmiri artisans, traders and merchants have brought to the attention of the world with their exquisite finished products like shawls and other apparel. The extraordinarily fine quality of the low micron size fibres produced by the goats reared in the extremely cold weather conditions of the Changthang plateau are one of the key reasons behind the high market value of these Cashmere products from Kashmir.

Pashmina finds historical mention in a treaty signed in 1684 by the Mughals which stated that all pashmina from Western Tibet would find its way through Ladakh, while Kashmiri traders would have exclusive rights to purchase pashmina from Ladakh (Rizvi, 1999). The trade of pashmina appears to have prospered from this point on. Circumstances changed in 1834, when the legendary Dogra general, Zorawar Singh, launched military campaigns in the region driven by the desire to control the pashmina trade. The Treaty of Leh signed between the Tibetan kingdom and the

Dogras in 1842 recognised Dogra dominion over the region, while reaffirming previous trade arrangements. The subsequent Treaty of Amritsar, signed in 1846, provided for the British to get a war indemnity of Rs 7.5 million and an annual payment of one horse, twelve perfect shawl goats of approved breed (six males and six females) and three pairs of Cashmere shawls. With this treaty, the Dogra kings could rule over all the hilly or mountainous regions situated eastward of the river Indus and westward of river Ravi. In addition to the control of pashmina trade, the Dogra kings imposed a series of economic measures that had a debilitating effect on the Ladakhi economy. These treaties and the ensuing circumstances led to the development of a world renowned Cashmere industry built on a "partnership" between highly skilled Kashmiri artisans and the industrious Changpa pastoralists that continues to this day. The tragedy of course has been that this asymmetric arrangement has relegated Ladakh to the role of a raw material provider with extremely limited economic and cultural share of the high value generated by the Cashmere products in regional and global markets.

Despite this harsh reality, the pastoral activities involved in the rearing of the Changra goats constitute a significant proportion of the culture and economy of the Changpa community to this day. The current pashmina production in the Indian Changthang is estimated to be between 37,000 to 50,000 kg annually. This accounts for less than 1% of the global cashmere production, which is largely supplied by production in China (75%) and Mongolia (19%). There is constant pressure to increase production of pashmina in Changthang. The Government has been facilitating

pashmina production by providing incentives to the Changpas, in the form of supplementary cattle feed during severe winters, subsidized food provisions, vaccination of livestock, improving pasture quality, increasing livestock numbers, market support for processing raw pashmina, etc. Pashmina is the primary source of livelihood in the Changthang region with at least 55% of the households depending on income generated from the sale of the raw fibre.

Increased demands of the multibillion dollar global cashmere industry are being felt across Central Asia. Increased livestock numbers and grazing pressure has created a skew where wild herbivores now contribute <5% of the herbivore biomass across the mountain ranges of Changthang and other Central Asian mountain ranges (Berger et al 2013). Intense grazing by a livestock can threaten the ecology of fragile high altitude pastures. Intense grazing pressure in Tibet has led to large scale desertification. (Dong et al. 2010) Unfortunately, the global demand for pashmina has not benefitted the herders proportionately. The Pashmina industry in Ladakh remains a raw material trade. Currently, the ACPGCMS and middlemen procure the pashmina. All the pashmina procured by the middlemen leaves Ladakh without any value addition. ACPGCMS procures between 40 and 70% of the produce each year. The ACPGCMS cleans and de-hairs the produce before selling it to finished product maker which are largely based outside of Ladakh. Currently less than 1,200 kg of raw pashmina is made into finished products within Ladakh. Hence the pashmina industry remains a raw material economy in the region and there is great potential here for inclusive economic development of the region.

Despite the difficult conditions in which livestock are reared by Changpa herders, their skills and interest have survived over several generations. Traditional herding practices have ensured sustainable use of rangelands, allowing sustainable livestock rearing over generations. These herding communities have also allowed for coexistence of rare high altitude wildlife that are found in the region, including the charismatic snow leopard, the wolf, and their prey such as the blue sheep, urial, ibex and argali. There is also a precariously surviving small population of the Tibetan gazelle in Indian Changtang, a species on the brink of local extinction in Ladakh (Bhatnagar et al., 2006). However, the future of pashmina in Ladakh is at crossroads today.



²Cashmere as defined by the 1939 regulation for The Wool Products Labelling Act where: the fibre is obtained from the goat's (*Capra Hircus Laniger*) undercoat, the average fibre's hair diameter does not exceed a 19 micron thickness, and the product is pure i.e. not containing more than 3% (in weight) of cashmere fibres with a diameter exceeding 30 micron per hair (Garrone, 2015).

Challenges

As has been observed, the fine quality of Ladakh pashmina is a well-established fact in the cashmere industry but with little awareness amongst consumers of the origins of the fibre and its uniqueness. Historically, it has been consigned to the raw material sector of the industry and has had to compete in bulk fibre market. Only a limited part of the cashmere produced in Ladakh is used to produce pure cashmere products. This is largely made by the handicraft industry of Kashmir. The rest of the pashmina is sold to bulk producers outside the former state of Jammu and Kashmir where it is mixed with other fibres. In consequence, most of the economic value created in this industry is realised downstream after it is processed and spun into yarn and woven products, mostly outside Ladakh. Herding communities realise only a fraction of the potential economic benefit in the value chain. Being a part of a bulk commodity market, the economic returns to the herding communities is further endangered by the annual price fluctuations in the price of raw fibre. Plagued by such uncertain and limited economic returns, the herder centered pashmina sector in Ladakh is experiencing an exodus of the younger generations from this traditional livelihood to other more attractive sectors of the economy. Currently, the herders receive between INR 2600 and 3000 for a kg of raw pashmina. At this rate, the 50 tonne produce is valued at INR 15 Cr. However, after cleaning and de-hairing, this volume reduces to about 20 tonnes but the value increases to INR 10,000 per kg leading to a total economy of INR 20 Cr. Finished products such as stoles and shawls weighing up to 200 gm then sell for about INR 5,000-10,000 INR with a total economy size of INR 75 Cr.

Until the full economic value of Ladakh pashmina is realised locally with a significant part of this benefit getting transferred back to the herders, the sector faces a serious fear of shrinkage in coming years.

Some of the challenges enumerated so far are local and specific to Ladakh. However there are global threats looming large over the cashmere sector, that Ladakh too must be conscious of. The biggest of these threats is one of environmental degradation posed by overgrazing. While the focus of the global cashmere sector has been on increasing production by continuously increasing livestock numbers, it is exposing itself to the risk of loss of pasture and desertification of high altitude rangelands in many areas (Berger et al 2013). Some of these harmful effects have already been witnessed in large pashmina producing areas on the Tibetan plateau and China's Inner Mongolia, which was amongst the world's largest pashmina producing area. These areas are now highly degraded and desertified from excessive goat grazing (Dong et al 2010). Such intensification in production hasn't benefited herders as they are reduced to competing in a commodity market, which allows them little control to command a fair price for their produce.

The high-altitude mountain habitat is also considered the water tower of Asia. Eight of the biggest Rivers of Asia originate in this landscape. Degradation of this habitat is thus linked to downstream impacts through these river systems. Increasing livestock numbers can lead to additional problems such as increased conflict from livestock depredation by wild carnivores, further disrupting the ecological integrity of these landscapes. The environmental impacts of the intensification in production

practices are further complicated by the impending effect of climate change on these fragile high altitude rangeland ecosystems. Recent unpublished data from Spiti shows that global warming; together with intense livestock grazing can lead to reduction in vegetation cover by up to 30% (Kohli et al Unpublished data).

While Ladakh itself has not witnessed intensification of production practices on the same scale it must strive to recognize the perils inherent in pursuing such a path to economic growth. Any disruption of the "equilibrium"

between rangeland health and livelihood requirements that has been so carefully managed by generations of Changpas could prove disastrous for the entire pashmina sector in Ladakh.

The time is now ripe to creatively address the twin challenges of economic growth and environmental sustainability and develop a pioneering, socially equitable and ecologically sensitive model for Ladakh Pashmina that can invigorate the economy of Ladakh.



Potential of Pashmina

How can it be realised?

There is interest at the highest levels of political leadership in the Ladakh Autonomous Hill Development Council (LAHDC) to work towards the improvement of the lives of Changpa herders and the development of a vibrant pashmina sector that can become a backbone of the economy of Ladakh. The implementation of these plans has been led by the Sheep Husbandry Department, Leh through their teams spread across the region, including Eastern Changthang, working to safeguard the concerns of the herding community. The leadership shown by the LAHDC and the Sheep Husbandry Department led to the formation of the All Changthang Pashmina Grower's Cooperative Marketing Society (ACPGCMS). The ACPGCMS focused its efforts on the twin goals of improving the quality of the raw wool that was being supplied to the bulk fibre market and ensuring a fair and consistent price for the wool in the market. The scouring and dehairing plant in Leh by the cooperative has been an integral component of these efforts. Recognizing the limitations of being a participant in a pure raw material economy, the Sheep Husbandry Department has also facilitated the formation of the Looms of Ladakh Cooperative to create pashmina wool based finished products that could help enhance the economic value realized by Ladakh in the Pashmina / Cashmere economy. These efforts have collectively created a strong infrastructure and foundation on which a vibrant pashmina can be built. Lastly, there is now an emergent class of Ladakhi youth with an entrepreneurial spirit keen to create and take high-quality pashmina products made locally to the global markets. In doing so, not only are they bringing back financial gains to the local economy but are also creating a unique brand of Ladakh pashmina.

However, these efforts have had to confront significant challenges ranging from insufficiency of resources and skills to ensuring effective implementation in very demanding environmental, social and market conditions.

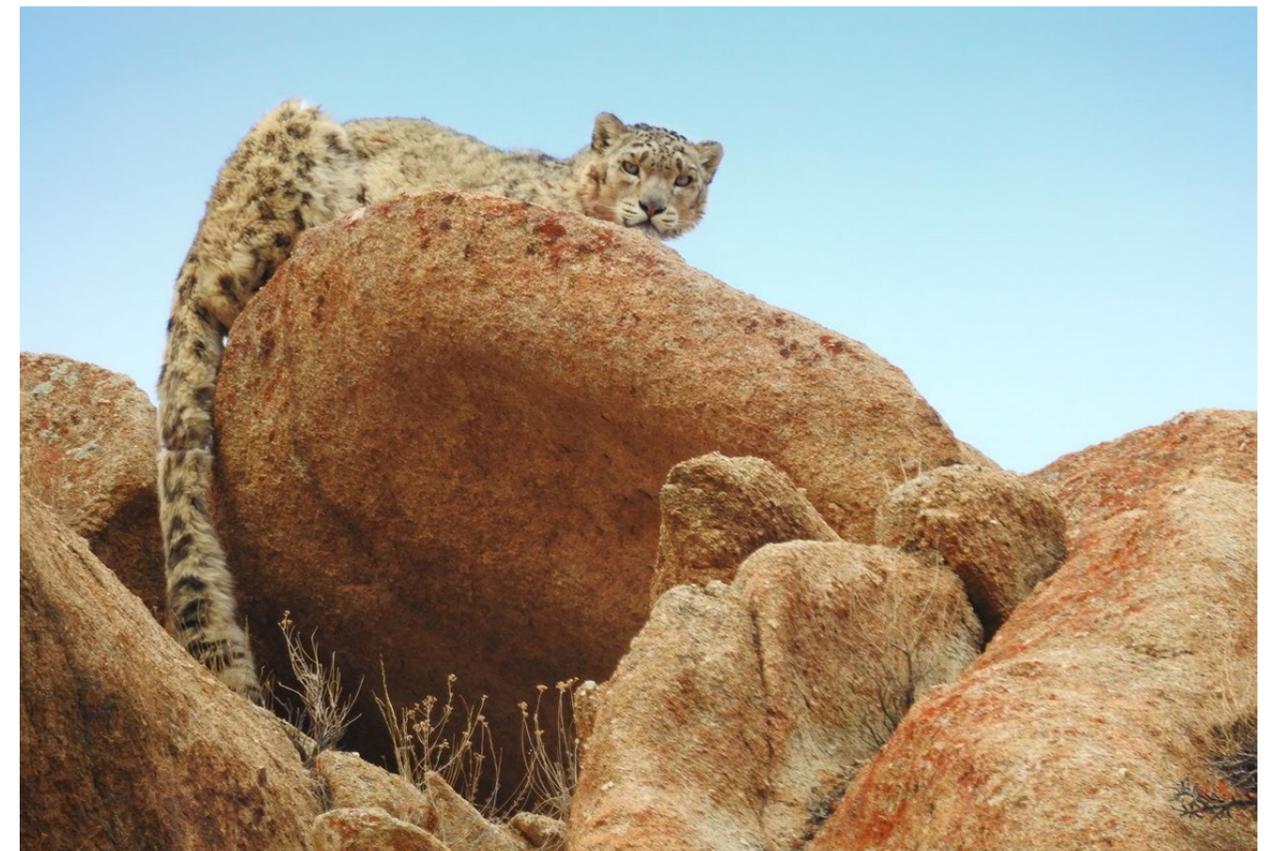
Ladakh pashmina accounts for just 1% of the global cashmere production, and is therefore highly vulnerable to competition in the bulk market, exposed to the uncertainties of global demand and price variations. The brunt of this uncertainty will continue to be borne by the herders. However, there is tremendous opportunity to position locally grown pashmina in a niche market rather than the bulk one. There is a steady rise of a niche market consisting of a class of conscientious Indian and global fashion labels, and their consumers who are willing to pay premium prices for value-differentiated products that are sustainably produced, adhere to basic principles of ecological sustainability and the equitable sharing of economic benefits. The development of this market segment presents a wonderful opportunity to the Ladakh pashmina sector to create a brand and a portfolio of high value products that represents not just a commodity, but also a set of values that are unique to the regions culture and ecology.

The basic elements of the institutional infrastructure that can help catalyse such a niche market strategy are already in place through the multiple initiatives taken by various government departments and Ladakhi entrepreneurs alluded to earlier. In addition, successful long term partnerships between reputed NGO's in the nature conservation sector and local governmental institutions and cooperatives have already been established. This combi-

nation of factors have set the stage for the transformation of Ladakh's pashmina industry from a hitherto low value raw material focused one to a globally recognized high value sector. We believe that engineering such a transformation will require an enlightened policy initiative that focuses on the following thrust areas:

- Developing and establishing a robust set of sustainable rangeland ecosystem friendly grazing practices that can be certified as "Snow Leopard Friendly"
- Providing infrastructure to support herders withstand the harsh conditions encountered while grazing
- Consolidating and improving the facilities for the production of high quality wool through investment in equipment and training

- Consolidating and improving the quality, design and range of finished pashmina products being made in Ladakh through targeted financial support and enhanced skills training of local entrepreneurs and cooperatives
- Creating a powerful global brand around "Snow Leopard Friendly Ladakh Pashmina" from Ladakh and establishing strategic partnerships with prominent regional and global niche market players
- Creating a trustworthy system for monitoring and certifying Snow Leopard friendly Ladakh pashmina and implementing an equitable revenue sharing model between the entrepreneurs, cooperative, and the herders



Vision

for Ladakh Pashmina

Vision

Ladakh pashmina becomes an exclusive global brand of ecologically and culturally sustainable fibre, bringing significant economic benefits to the herders and becoming the pride of Ladakh.

Objectives

To improve the life of the herder through welfare measures, equitable profit sharing, institutional infrastructure to improve herding practices, better equipment and skills

To improve the practice of wool gathering by the ACPGCMS by building financial stability and world class machinery to process pashmina

To help produce world class finished products by helping entrepreneurs and other groups through access to high

Mission

To transform pashmina production in Changthang through sustainable grazing practices

Set practices to produce high quality pashmina and finished products within Ladakh

Create a globally recognizable brand of sustainable pashmina

To create a supply chain where profits are equitably shared between every stakeholder from the herder to the finish product maker

quality pashmina and access to markets
To build a globally recognizable brand for 'Snow Leopard Friendly Ladakh Pashmina'

To create a board comprising of representatives of all the stakeholders to work toward the above defined vision of 'Snow Leopard Friendly Ladakh Pashmina'.

Process



Process Facilitation

- Engage local youth groups of Changthang
- Implement conservation-friendly interventions in herding communities
- Certify the pashmina as snow leopard friendly
- Procure certified pashmina from partner communities
- De-hairing certified pashmina at the plant in Leh
- Develop a yarn spinning centre
- Building capacity for producing hand-spun yarn
- Set up partnerships with fashion houses and buyers of snow leopard friendly pashmina
- Set up a snow leopard friendly pashmina label

Figure 1: Steps for creating a sustainable Ladakh pashmina sector

A New Model

Snow Leopard Friendly Ladakh pashmina

The new model for Snow Leopard Friendly Ladakh Pashmina makes two promises. The first promise is to the local herding communities for equitable and fair sharing of profits, sustainable long-term incomes and better living and working conditions. This is also a promise to the environment to manage pashmina production in an environmentally sustainable manner. The second promise is to the environmentally and culturally sensitive customer of providing high quality finished products made from environmentally and culturally sustainable 'Snow Leopard Friendly Ladakh Pashmina'. Ladakh is known world over for its population of the endangered snow leopard. Linking Ladakh pashmina with snow leopard conservation will create a highly unique and recognizable global brand. Today, the conservation of snow leopards and high mountain ecosystems has become a priority for the Indian Government, which has ratified the Global Snow Leopard and Ecosystem Protection Program, with the Prime Minister recently speaking about its importance. Similarly, it has also become a priority for the United Nations and the Global Environment Facility, with the UN Secretary General issuing a statement on the importance of conserving snow leopards and high mountain ecosystems of Asia, of which Ladakh is an integral part.

The Ladakh Pashmina industry is primarily dependent on the sustainability of pastures and the welfare of the herding community. The new model will support the herder community through better models of revenue sharing and premium pricing for Ladakh Pashmina which will be produced while ensuring that the pastures and the mountain landscapes are thriving. The local knowledge of the herder will be incorporated in the management of the pastures while providing support for the herder in the field to improve

their lifestyle while herding pashmina goats (table 1).

The current Pashmina production in Ladakh is estimated to be around 50 tons of raw wool which is valued around 10 crores. Only a fraction of this is washed and de-haired within Ladakh by the ACPGCMS. While this is an important step in the value addition to Pashmina, the current capacity of the plant in Ladakh is limited. The new model of Ladakh Pashmina will assist in improving the capacity of the ACPGCMS in dehairing larger volumes of Pashmina while also building capacity in spinning and making finished products. The implementation plan of this policy outlines the steps that need to be taken to improve opportunities for value addition.

The new model will use the global recall value of the 'snow leopard' and 'Ladakh' and make it synonymous with 'sustainability' and 'quality'. Sustainably produced Ladakh Pashmina will also improve the resilience of the herding systems to climate change. Pashmina produced by herders in adopting sustainable practices under the branding of Snow Leopard Friendly Ladakh Pashmina (SLFLP) will also help the farmer to get premium prices for their produce. Pashmina products produced from this pashmina will also command premium price in the international markets and help build local skill levels and support local entrepreneurial spirit through revenue sharing mechanism between the entrepreneur, the ACPGCMS and the herder. Certification of snow leopard friendly Ladakh pashmina, as being produced in an ecologically and culturally sustainable manner requires, the adoption of certain measures by herding communities.

Sectoral focus:

1. HERDERS AND HERDING

- Herders will be provided financial security through equitable and fair profit sharing
- Herders will be provided with institutional infrastructural support to make herding an easier way of life
- Herders will be supported with equipment that make herding of livestock during the harsh winters easier
- Herders will be provided with skills and training to improve the ecological sustainability of grazing (see appendix)
- Herding as a way of life will be made more lucrative for the younger generation through the above mentioned measures

3. FINISHED PRODUCTS MAKING

- The number of stakeholders in the finished product making will be diversified by supporting entrepreneurs, women's collectives and other groups
- Finished product makers will be encouraged by creating funding opportunities to scale operations
- Trainings will be provided to hone and nurture entrepreneurial spirit
- Direct access to global niche markets of sustainably produced pashmina products will be created

2. WOOL GATHERING AND PROCESSING

- Wool gathering by the ACPGCMS will be made more efficient by creating financial stability in the revolving funds of the cooperative
- The cooperative will be supported with world class equipment to clean and de-hair pashmina. The cooperative will also be supported to build capacity in making yarn.
- The cooperative will be supported to procure improved equipment to process all the pashmina produced by the herder in Changthang
- The cooperative will be strengthened through skills and training to conduct smooth operations

4. BRANDING FOR 'SNOW LEOPARD FRIENDLY LADAKH PASHMINA'

- A dedicated effort will be launched to create a globally recallable brand of sustainably produced 'Snow Leopard Friendly Ladakh Pashmina'.
- A dedicated website and information portal will be created to engage sensitive buyer

Way Forward

Some of the proposed measures are under planned implementation by the Sheep Husbandry Department and the All Changthang Pashmina Growers Cooperative Marketing Society. Few of the proposed measures are new, or may require further strengthening of ongoing efforts. Listing this plan, we hope, will provide a consolidated view of the phases to realising our vision for Ladakh Pashmina.

Herders and herding

1. Set up a minimum income support scheme for pastoral herders of Eastern Changthang on the lines of the Pradhan Mantri Kisan Samman Nidhi. Herders have limited access to cash at the end of winter, before the combing season, in the months of April-June. An income support offered through a centrally sponsored scheme could boost their morale and revive traditional pastoral practices. Assuming c. 2,500 livestock rearing households, which are an estimate by considering all the households in the Nyoma and Durbuk blocks of Eastern Ladakh based on District Census Handbook for Leh (2011), the annual budget required would be Rs 1.5 Crore.
2. Strengthen ongoing schemes focussed on livestock health, fodder stocks for emergency support in winter, promotion of local breeds, and supporting safer herding of livestock. Many programs that are being run by Sheep Husbandry Department under the Pashmina Promotion Programme supported under Pradhan Mantri Development Programme is now being further strengthened with support of the UT Ladakh administration.

3. Encourage community-wise adoption of sustainable herding and conservation-friendly practices that can improve the status of conservation and help herders and the habitat become more resilient to effects of climate change. A budget of Rs 60 lacs spread over 3 years.
4. Build a cadre of local youth who can work as frontline extension teams to facilitate uptake of sustainable herding and conservation-friendly practices. A budget of up to Rs 50 lac, which is distributed over at least 3 years, to begin with.
5. Set up collaborations between the Sheep Husbandry Department and recognised scientific research organisations to study and monitor rangeland health and the impacts of climate change. The budgets can be fixed based on the details of the type of scientific work pursued.
6. Led by the LAHDC, initiate the creation of a geographical indication (GI) for Ladakh Pashmina under the Geographical Indications Registry of the Government of India. Kashmir Pashmina is currently registered as a GI since 2008 and is registered upto 2025. This process has been initiated by the Sheep Husbandry Department.

Wool gathering and processing

7. Strengthen the All Changthang Pashmina Growers Cooperative Marketing Society (ACPGCMS) by

ensuring a stable revolving fund that can assure procurement of raw pashmina from herding communities at a competitive price. Currently the ACPGCMS is able to procure 40-70% of the raw pashmina produced across Eastern Ladakh. A one-time support of up to Rs 5 Crore can allow the ACPGCMS pick the locally produced pashmina from herders of Eastern Ladakh. The ACPGCMS is currently being supported by the administration of UT Ladakh.

8. Boost processing capacity at the scouring and dehairing plant in Leh. These plans have been in the works since last few years through support of the Ministry of Textiles that has processed a proposal for funding of Rs. 20 crore for a new dehairing plant.
9. Build capacity to revive spinning and traditional Ladakhi weaves through training, providing adequate equipment and employing local artisans, with a focus on restoring and enhancing local knowledge of the craft. Such an initiative has already been initiated through Project Laksal that led to setting up of Looms of Ladakh women's cooperative as a skill development initiative. A budget of up to Rs 60 lacs spread over 3 years can be considered at the outset. This could be strengthened by the Office of Development Commissioner (Handicrafts) under the Ministry of Textiles.
10. Train people in organisational and human resource skills to enable smooth operations among members who will be involved along the pashmina value chain. A budget of up to Rs 12 lacs spread over 3 years can be considered at the outset.

Finished products making

11. Expand support to existing and upcoming local entrepreneurs through various centrally sponsored schemes like the Raw Material Assistance scheme as well as other incubation schemes that offer seed funding. Plans to set up a Raw Material bank are in the works.
 12. Link locally manufactured products to domestic and global markets of sustainably produced Ladakh pashmina through central craft development programmes as well as collaborations with responsible fashion labels.
- ## Build a globally recallable brand of 'Snow Leopard Friendly Ladakh Pashmina'
13. Launch an effort to create a globally recallable brand for sustainably produced Ladakh pashmina. The brand will symbolise the relationship of the Changpa herder and the rangelands on which they live. Through sustainable livestock rearing practices the herder and these rangelands support each other. This effort calls for collaboration between important government bodies, responsible fashion labels and conservation agencies. A budget in the range of Rs 50 lacs that is spread over a few years, to set up and drive such a brand.

Budget to revive Ladakh pashmina

Based on the way forward suggested, we present an indicative budget to support efforts to boost Ladakh pashmina and traditional herding in Eastern Ladakh. Some of these vital funds can be allotted under ongoing centrally sponsored schemes. The possibility of raising support through donors and grants marked under corporate social responsibility can also be explored as these are focused on supplementing local livelihoods, skill building and climate adaptation.

Suggested Intervention	Budget (INR)	Frequency
Set up a minimum income support scheme for pastoral herders of Eastern Changthang	Upto 1.5 Cr.	Annual
Strengthen ongoing schemes of the Sheep Husbandry Department	Allocations made under PMDP	Annual
Encourage community-wise adoption of sustainable herding and conservation-friendly practices	60 Lacs	Spread over 3 years
Build a cadre of local youth who can work as frontline extension teams	50 Lacs	Spread over 3 years
Set up collaborations between the Sheep Husbandry Department and recognised scientific research organisations	-	Case-based
Initiate the creation of a geographical indication (GI) for Ladakh Pashmina	-	Case-based
Strengthen the All Changthang Pashmina Growers Cooperative Marketing Society (ACPGCMS) by ensuring a stable revolving fund	Upto 5 Cr.	One-time
Boost processing capacity at the scouring and dehairing plant in Leh	20 Cr.	One-time
Build capacity to revive spinning and traditional Ladakhi weaves through training, providing adequate equipment and employing local artisans	60 Lacs.	Spread over 3 years
Train people in organisational and human resource skills	12 Lacs.	Spread over 3 years
Expand support to existing and upcoming local entrepreneurs through various centrally sponsored schemes	-	Case-based
Link locally manufactured products to domestic and global markets of sustainably produced Ladakh pashmina	-	Case-based
Launch an effort to create a globally recallable brand for sustainably produced Ladakh pashmina	50 Lacs	Spread over 3 years



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Appendix

The following 15 measures have been identified as part of a pilot Snow Leopard Friendly Ladakh Pashmina effort piloted by the LAHDC, the ACPGCMS, the Nature Conservation Foundation and Snow Leopard Trust.

Table 1: Environment and conservation friendly measures against which Ladakh pashmina can be certified as Snow Leopard Friendly Ladakh Pashmina

Indicators	Activity	Description
Administration	Setting up Snow Leopard Friendly Ladakh Pashmina committee	Form SLFP committee with representation of all sections of the producer community/village; document committee members, respective roles and committee activities (meetings, minutes of meetings and register of activities implemented). This process can be facilitated by local youth groups who can lead adoption of the conservation friendly measures suggested and also have access to some resources to ensure execution of the measures identified.
Pasture management	Protected pastures for wild herbivore conservation and pasture rejuvenation	Protected pastures are socially-fenced pastures that are left free of grazing to facilitate the revival of local wildlife populations and allow the vegetation to recover. The partner community identify and establish village reserve, prepare resource map of the reserve through survey of resources (wildlife and vegetation); data register to record sightings and signs of wildlife, livestock, and people. In cases where communities have very limited pasture lands, they may consider 'floating protected pastures' that whose location is shifted seasonally based on movements of wild herbivores.
	Rotational grazing	Herding communities have practiced rotational grazing over generations, which has made pashmina rearing sustainable in Ladakh. The partner community help to document seasonal livestock movement, pastures and livestock numbers and composition.

Indicators	Activity	Description
Feral dog management	Sterilization of feral dog	Feral dogs are a growing concern across the landscape and are negatively affecting both livestock and wildlife. Work with the concerned government agencies and help assess feral dog population; number and proportion of dogs sterilized; incidences of dog depredation on livestock; approximate economic value of loss due to dog depredation; create a long-term plan to tackle the problem.
	Dog-proof garbage disposal	Improper management of garbage is one of the key reasons for the rise in the numbers of feral dogs. Work with the concerned government departments and ensure implementation of a garbage disposal site mainly for livestock carcasses under the pertinent government scheme; monitor garbage (& carcass) disposal and maintenance; extent of unmanaged garbage.
Disease management	Feral dog vaccination	Ensure that village dogs and guard dogs vaccinated against common diseases, e.g. rabies, canine distemper.
	Livestock vaccination	All livestock goes through dipping against ecto parasites and vaccinated against common diseases (e.g. FMD) as planned and prescribed by the Sheep Husbandry Department.
Preventing disturbance to wildlife	No chasing/hunting of wildlife by people/dogs; no removal of carcass from wilderness	Local communities have coexisted peacefully alongside local wildlife. Herding communities commit to extend this commitment to coexistence by pledging to not hunt/chase/disturb wildlife. Local people will not allow/support such activities by outsiders
	Converting wolf-traps (shang-dong) to stupa. Deactivation of wolf traps, conversion into stupa	Herding communities work to neutralise all existing wolf-traps in region.

Indicators	Activity	Description
Mitigating livelihood risks from carnivores	Livestock insurance program	If depredation of large-bodied livestock is a major problem, livestock insurance program may be implemented and run by the community. In the process of setting up the program, the community document number and proportion of households involved and livestock insured, insurance register recording premiums and compensation claims, system of verification, corpus status and trend. While the insurance is against carnivore-caused mortality, a modest amount of compensation may be claimed against natural death, death due to disease, and mortality caused by feral carnivores, e.g. dogs. The community will receive a matching contribution as the premium contributed by the community for upto 5 years. Total annual compensation amount should not exceed 50% of corpus balance. The program is run jointly by community and NCF, no external company is involved.
	Predator-proof corrals	If depredation of sheep-goat is a major problem, predator-proof corrals may be built at individual and/or community level. Document depredation-prone households/ areas, number of corrals, number of livestock protected, approximate economic value of protected livestock
	Enhancing alternate income	Assess potential for handicraft-based enterprise, status of handicraft skill; set up self-help group; training of group; number and proportion of women involved, production of handicrafts; monitor economic returns, women's conservation activity register. Women group will proactively prevent hunting/ chasing/disturbance to wildlife.
Festival calendar observed	Traditional festival celebration	Document traditional festivals and assess celebration of the festivals; revive discontinued festivals/rituals/ceremonies related to grazing, environmental and social practices.
Humane treatment & feeding of domestic animals	Feeding of guard/working dogs & livestock	Assess feeding and treatment of guard dogs and livestock; frequency and amount of feed given to dogs, incidences of diseases in livestock and treatment.
Nature education	Nature education workshops in schools and outdoor nature camp	Evaluate the number of schools in the village/area, number and engage these children and schools in nature education activities.

The multi-stakeholder visioning exercise that led to this policy document was conducted on 03.12.2019 at Stok in Ladakh in the presence of representatives from the following departments and institutions:

- Ladakh Autonomous Hill Development Council
- Sheep Husbandry Department
- All Changthang Pashmina Grower's Cooperative and Marketing Society
- Entrepreneurs like Looms of Ladakh, Lena Ladakh, etc.
- Herders from the Changpa community
- Nature Conservation Foundation
- Snow Leopard Trust
- Youth groups of Changthang

The list of participants:

- | | |
|--|---|
| 1. Chamba Tsetan: Youth Association, Kargyam | 19. Tashi Namgail: Councillor Tangste |
| 2. Dorjay Stanzin: ACPGCMS member from Durbuk | 20. Tashi Phunshog: Herder Gya-Miru |
| 3. Gurmet Dorjey: Councillor Korzok | 21. Thinley Norbu: S.A.V.E. president |
| 4. Konchok Phunchok: BDC member, Durbuk | 22. Thupstan Wangchuk: Councillor Hanle, Nyoma Block |
| 5. Konchok Stanzin: Executive Councillor at LAHDC | 23. Tsering Palden: Councillor Igoo |
| 6. Kunzes Dolma: Looms of Ladakh (Stok) | 24. Tsewang Dorjay: Sheep Husbandry Department |
| 7. Lamo: Herder Gya-Miru | 25. Tsewang Zangskit: S.A.V.E. |
| 8. Lobzang Dolma: S.A.V.E. (Korzok) | 26. Dr Tundup Namgail: District Sheep Husbandry Officer |
| 9. Lundup: Sarpanch Rupshu | 27. Urgain Nurbu: Youth Association Gya-Miru |
| 10. Nawang Stobdan: Member of ACPGCMS member(Tukla) | 28. Urjain Choldon: Sarpanch Kuyul and BDC member |
| 11. Norbu Tsering: Tsokar Culture Welfare Society (Rupshu) | 29. Ajay Bijoor: NCF |
| 12. Padma Chuskit: S.A.V.E | 30. Charudutt Mishra: NCF |
| 13. Padma Dolker: Student at JNU working on a project with LAHMO in Changthang | 31. Karma Sonam: NCF |
| 14. Rigzen Yangdol: Looms of Ladakh (Phyang) | 32. Kulbhushansingh Suryawanshi: NCF |
| 15. Sonam Angmo: Lena Ladakh | 33. Munib Khanyari: NCF |
| 16. Sonam Tsering : General Secretary at ACPGCMS | 34. Rigzen Dorjay: NCF |
| 17. Stanzin Minglak: Lena Ladakh | 35. Srijan Dangwal: NCF intern |
| 18. Sultan Tak: DRC Leh | 36. Suri Venkatachalam: NCF |
| | 37. Tanzin Thuktan: NCF |



Inputs from participant groups:

Groups	Aspiration	Challenges	Solutions	Targets	Headline	Information
Durbuk	<ol style="list-style-type: none"> 1. "Changra" pashmina identity 2. Entire chain from raw material to product in house 3. Local-based entrepreneurship 	<ol style="list-style-type: none"> 1. Livestock losses to feral dogs and wildlife 2. Low quality and quantity of pasture 3. Global market competition 4. Lack of herders 	<ol style="list-style-type: none"> 1. Dog sterilization 2. Funding for pasture improvement strategies (i.e. drip irrigation) 3. Education about conscious capitalism 	<ol style="list-style-type: none"> 1. Village-based small enterprises 2. Education for the herders 3. Strengthen the cooperative 	Changra pashmina beats all fibres in the world and becomes the finest fibre	Changra pashmina the fibre that changed the fate of the Chang-pa and Chang-mo in the last five years
Rong	Sustainable pashmina in Rural Ladakh. Aligning business with sustainable development	<ol style="list-style-type: none"> 1. Lack of herders 2. Lack of facilities for herders 3. Harsh climatic conditions 4. Low income for herders 	<ol style="list-style-type: none"> 1. Govt. subsidies for herder facilities 2. Salaries for herders 3. Incentives for local herding system 4. Set-up village level cooperative units 	Village based small enterprises	Unsung pashmina from the mountains region of Ladakh becomes the most expensive product in the world	<ol style="list-style-type: none"> 1. Rarzi become highest prestigious job in the world 2. Life expectancy crossed 82 years now 3. Standard of living of rural people is higher than city people. 4. Now people start migrating to rural areas
Nyoma	<ol style="list-style-type: none"> 1. Income for herders 2. Set up a local dehairing plant 3. Provisions for herders 	<ol style="list-style-type: none"> 1. Harsh climatic condition 2. Disease 3. Livestock losses to feral dogs and wildlife 4. Lack of facilities for herders 	<ol style="list-style-type: none"> 1. Training for processing pashmina from raw to finished product(including value addition) 2. Govt. subsidies for herder facilities 		After 10 years of hard work Changthang pashmina is known at international level	
Rupshu	<ol style="list-style-type: none"> 1. Maintain traditional yarn 2. Improve pasture quality and fodder availability 3. Increase women involvement in the pashmina process 	<ol style="list-style-type: none"> 1. Winter fodder scarcity 2. Livestock losses to feral dogs and wildlife 3. Women health issues 4. Lack of education for herder children 5. Impact of climate change on pasture 	<ol style="list-style-type: none"> 1. Govt. subsidies for herder facilities 2. Reinforce livestock corrals 3. Compensation for livestock losses 	<ol style="list-style-type: none"> 1. Increased government subsidies and provisioning of fodder 2. Herder friendly technology for shearing wool 	Nomadic entrepreneur of Changthang Ladakh	<ol style="list-style-type: none"> 1. Changpa women are playing the role of herders along with weavers and entrepreneurs 2. Improved standard of living of Changpas 3. Along with this there is conservation of traditional herding practices
Cooperative	<ol style="list-style-type: none"> 1. Setting up a formal procedure by the cooperative for pashmina acquisition and processing. 2. All pashmina be sold in Changthang through cooperative 3. Have sustained buyers of Changra pashmina 4. Production of final product by the society 	<ol style="list-style-type: none"> 1. Middlemen 2. Legalities (i.e. Indian pashmina has import duties while China and Mongolia pashmina doesn't) 3. Insufficient revolving funds 4. Storing of clean and good quality pashmina at the level of the herder 5. Lack of herders 	<ol style="list-style-type: none"> 1. Society be equipped with sufficient revolving funds to procure pashmina (45-50 tons) 2. Installation of spinning, weaving, and knitting machines 3. Co-operations from all stakeholders 4. Incentives for local herding system 	<ol style="list-style-type: none"> 1. Raw material to gain the price of its quantity 2. The final product is sourced by the society 3. New de-hairing machine at local level 4. G.I. certification for raw materials 5. B.I.S.(bureau of Indian Standard) tag 	Changthang pashmina gets success in supporting rural economy	
Entrepreneurs	<ol style="list-style-type: none"> 1. Give Ladakhi products a global identity 2. Sustainability (production, social aspect, environmental aspects, ethnic aspects) 	<ol style="list-style-type: none"> 1. Raw materials (lesser herders, material available only during certain times of year, quality is variable as de-hairing plant isn't the best) 2. Marketing 3. Low finances 4. Inbreeding of Changra goats with other breeds 	<ol style="list-style-type: none"> 1. Raw material banks 2. Increased financial support by the government 3. Distribution at national and international levels 4. Training for processing pashmina from raw to finished product(including value addition) 	Marketing to make the pashmina have a global identity	Ladakh-based social enterprise wins the prestigious International Woolmark prize for creating premium pashmina products without negative community + social impact	<ol style="list-style-type: none"> 1. Creates handmade pashmina which is socially and environmentally ethical 2. Women empowerment- job opportunity for 500 local women artisans 3. Revival of dying indigenous technique
Conservation	Aligning pashmina production with wildlife conservation (No negative impact, at least neutral and strive for positive)	<ol style="list-style-type: none"> 1. Wildlife related losses 2. Pasture conflict 3. Time pressure 4. Spatial extent/Remoteness 5. Sustainability of pashmina/ market pressure 	<ol style="list-style-type: none"> 1. Scaling up multi-pronged mitigation strategies (i.e. corral reinforcement, livestock insurance, etc.) 2. Empowering local stakeholders 3. Providing unique SLFP identity 	<ol style="list-style-type: none"> 1. Stability (or increase) of wildlife population in pashmina production areas 2. Eliminate wildlife killings (e.g. shangdong to stupa) 3. Vaccination of livestock 4. Rotating grazing 	Chandi Chowk to Changthang	<ol style="list-style-type: none"> 1. Wildlife friendly pashmina finally bridges the gap between conservation and development 2. Changthang records highest number of snow leopards alongside being the no. 1 producer of the finest pashmina in the world.

