

**TO WHAT EXTENT DO ECO-TOURISM AND CULTURAL TOURISM  
CONTRIBUTE TO LADAKH'S ECONOMY AND MAKE IT MORE  
SUSTAINABLE?**

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**ABSTRACT**

Ladakh is a mystical land. I feel fortunate to have had the opportunity to visit this beautiful region of India and participate in a summer internship with The Snow Leopard Conservancy Trust of India. I would like to thank Dr Tsewang Namgial and the entire team of The Snow Leopard Conservancy Trust of India (SLCTI) for their time and support, which not only enabled me to complete my internship in Ladakh, but also get an experience that I will cherish forever.

SLCTI has been doing amazing work for the conservation of snow leopards and their habitat across Ladakh. They have been engaging the local community in their conservation efforts by demonstrating the importance of protecting the snow leopard and how conservation can generate local livelihoods.

While working for SLCTI on their ongoing projects, I have also had the opportunity to understand how increasing tourism is impacting the socio-economic and environmental fabric of Ladakh. My research paper aims to highlight the key issues challenging Ladakh in light of the negative impact of tourism on the region's wildlife and culture. The paper also focuses on why environmentally friendly tourism is essential and how it can positively contribute towards making Ladakh's economy sustainable.



**A performance organised by the Snow Leopard Conservancy Trust to prevent littering and to encourage more sustainability amongst locals and tourists in Leh market on World Environment Day on 5<sup>th</sup> June 2022.**

### **Introduction**

After spending multiple days in Leh and visiting some of its most remote locations, I have come to understand that tourism plays an important role in shaping Ladakh's economy. After paying close attention to the environmental and cultural aspects of tourism in Leh, this paper aims to analyze the environmental and cultural aspects of tourism in Ladakh and argues that it will not be sustainable until growing concerns about increased transportation, shortage of water, and improper waste management are addressed through regulatory measures.

### **Ladakh – Environment & Culture**

Ladakh, situated primarily in the trans-Himalayan region of India, is a high-altitude cold desert that is considered one of the highest and driest inhabited places on Earth. Despite its extremely harsh environment, it enjoys a rich and thriving biodiversity and culture. While this cold desert region appears barren with a low number of wild animals, more than 700 species of plants, predominantly herbs and shrubs, have been reported in this region. Additionally, 37 species of mammals and over 276 species of birds, most of which are migratory and vary seasonally, have been spotted in this region. Ladakh has the richest wild sheep and goat community represented by eight species and subspecies including the Blue Sheep, Ibex, Ladakh Urial and Tibetan Argali, which are the main food source for predators like the snow leopard, Phallas cat, Tibetan wolf and the lynx.

Forming a part of the upper Indus River valley basin, several tributaries like the Zaskar, Shyok, Shigar, Gilgit and Drass join the Indus river in Ladakh and create numerous river valleys. These rivers play a critical role in the lives of Ladakh's residents and its fauna and flora. Further,

Ladakh is also known as “the Land of Passes” and has some of the highest passes in the world. Umling La Pass, located in eastern Ladakh at an altitude of 19,300 feet is considered as the highest motorable road in the world. Due to these mountain passes, Ladakh was a key region in the cross-national trade routes (Silk Route) which connected Central Asia to China via Tibet. This historic trade and intermingling of cultures has played a strong role in influencing the cultural, social and economic fabric of the region. For instance, many people in Ladakh are influenced by Buddhism and the Tibetan lifestyle.

The local population of Ladakh consist of mostly of Dards, an ancient Aryan race that practice Buddhism. The local communities are known to be humble and share a close bond. During the harvest season, they cultivate the land together in an eco-friendly way.

Leh is the main city in Ladakh and lies between the mountain ranges of the Zaskar and Karakoram in the Himalayas, along the banks of the Indus river. Leh is one of the two districts of Ladakh, the other being Kargil. While within the Leh district, 77% of the population stays in rural areas, it is a predominantly Buddhist area that bleeds culture and tradition. One of the most important aspects to Ladakh’s culture is that of the pashmina wool, which is a significant contributor to Ladakh’s economy due to several residents being involved in its production and sale. The second important aspect would be Ladakh’s wildlife, which is important for the economy of the local regions due to increasing tourist demand for wildlife expeditions to encounter animals such as the snow leopard.



**View of Leh City**

### **Tourism in Ladakh- Is it sustainable or not?**

Ladakh is one of India’s prime mountain tourism destinations known for its scenic mountains, stark landscapes, scenic high-altitude lakes, scattered monasteries, culture and traditions. Tourism in Ladakh is an important industry for the development of the region’s economy due to the employment opportunities it creates in transportation, hotels and catering businesses. Tourism also promotes economic activities in even the most remote locations of Ladakh. Even

those without paid jobs benefit from tourism as a large percentage of funds earned through tourism generally goes into a community fund dedicated towards the development of their villages. As a result, a growth in tourism in remote areas or villages leads to an improvement in the quality of life for residents. The tourist season, which was earlier confined to a few months in the summer, has also expanded into the winters due to wildlife activity such as snow leopard safaris and the Chadar trek on the frozen Zaskar River.

Tourism has been steadily increasing in Ladakh over the last few decades and this growth, while bringing economic benefits, has also added pressure on its scarce natural resources. The people of Ladakh, traditionally, were sustenance farmers dependent on seasonal crops and livestock. However, with the increasing impact of tourism, locals are gradually shifting away from their traditional source of livelihood- farming. In lieu of these changes, while people want more tourists to visit the region, environmental experts are wary of the negative impact it will have on the local environment.

It is important for us to understand the history of tourism in Ladakh to assess the impact of tourism on the region and how it can be improved and made sustainable. Being a border territory, no tourists were allowed into Ladakh until 1974, when it was opened for domestic and foreign tourists.

In the early years, most of the 300-400 tourists who would visit Ladakh were foreigners. The only domestic tourists who would come to Ladakh would be the ones who were relatives of army officials. During this time, while most Indian travellers lacked awareness about the region, tourists from the alpine areas of Europe travelled to Ladakh to experience the mountains, spirituality, peace and culture that the region offered. However, travelling to Ladakh was filled with hardships. With only one flight coming into Ladakh every two weeks, most of the tourists would drive in from places like Srinagar.

At the time, there were two main types of tourism, trekking tourism and cultural tourism. Trekking tourism was the type of tourism where foreign tourists would come into Ladakh for almost 20 days and go on long treks with only a break of two days. This type of tourism was sustainable since it did not involve the use of taxis or fancy hotels as these foreigners craved simplicity and enjoyed visiting places on foot. This did not exert any additional pressure on the natural resources of the region. Cultural tourism, on the other hand, involved visits to some of the biggest monasteries in the area to experience the culture of Ladakh.

However, due to external factors like the awareness created by the popular Bollywood movie *Three Idiots* which was shot in Ladakh and the impact of COVID-19, Ladakh has seen a substantial increase in the number of domestic tourists. Now, instead of staying in Leh for a day,

tourists stay in the region for 3-4 days. “There is an increase in tourism, but we are facing an increase in problems with rental cars and taxis and the booking of rooms is close to impossible” said travel agent Zulfiqar Ali. “Before, when there were foreign tourists, they would look after the land but with domestic tourists it has become a lot harder.” Thus, tourism is not as sustainable as it used to be. Additionally, as booking travel tours via the internet has become relatively easier, many tourists opt for this route. However, this has further decreased responsible travel due to the ineffective planning by online sites which in turn ruin the experience for the tourists.

### **What is sustainability and what does it mean to Ladakh?**

The word 'sustainable' comes from a French word which means 'to support'. If we can support the local community in our efforts to make the world a better place, we will be able to be more sustainable, thus benefiting the economy as well. Additionally, if the tourists can positively support the local community, the local community will benefit from tourism. However, if the tourists destroy the qualities which have attracted them to a region in the first place, the local economy will be worse off. Sustainable tourism implies that the human and natural ecosystem of an area will be able to adapt to the stresses of tourism in a way that does not affect their continued functioning. It consists of starting a project, collectively working with the local community and stopping as soon as it becomes disruptive towards the community and the environment.

Additionally, tourism should also be responsibly conducted. Apart from finding the most effective alternatives for the local economy and the best locations for the tourists, infrastructural development needs to occur for the local community to benefit from these changes. Simultaneously, one needs to ensure that the development is incremental and sensible. It should take into consideration the local community and their spiritual and political beliefs, instead of being hasty or haughty (taken place without consulting the local community, engineers etc.).

Many rural areas of Ladakh have experienced a decline in subsistence living and reported a few changes in local culture in remote communities. As one of the most important livelihood activities in Ladakh is agriculture, without subsistence farming, households would not even be able to support a small family. Yet, in the recent years, there has been a fair amount of rural depopulation due to young people leaving rural farms to obtain higher paying jobs available in bigger cities. Consequently, many young children of villages are left uneducated due to schools being ineffective for small groups of four to five children. The younger children, who are still in schools in more rural areas, are thus gravely impacted because as their elders migrate, there are fewer teachers. Furthermore, due to only a very small number of children staying behind as many families move out, these children fail to often receive an education as schools are not required in localities with such a small number of students. For those who still reside in rural

areas, it is important to economically diversify their livelihood to receive a higher income and increase their resistance to shocks. With the economy of these local regions suffering, tourism needs to be promoted in such areas to improve the economic conditions of the local communities.

To further enquire about sustainable and responsible tourism in Ladakh and its prevalence and potential solutions, I conducted interviews with four travel agencies. Lobzang Visuddha from Ancient Trackers said that “the way we are going about things is extremely wrong. No one understands the meaning of these terms. Statements are made, but no action is being taken. Every individual needs to be sustainable. Regulation is the best solution to the problem. People need to change the way they look at these problems and should be educated before entering a region like Ladakh. They should be more aware of the cultures and the traditions, that is the only way they will not destroy the land whose beauty attracted them here in the first place.”

Thinlan Choral from the Ladakhi Women’s Travel Company stated that “the land is fragile and there is so much garbage and litter. Everyone is aware of the problem, they have meetings and conferences, but no one puts it into practice. Plastic bottles were banned in Ladakh a while back, but the government body did not provide the citizens with any alternatives so after a week, they came back into practice and the enforcement was not a success. If the government thinks of a good policy and alternatives, it is a solution. Right now, the problem is not being looked at.”

Tsering Dadul from Nomadic Way Travel mentioned that “sustainable and responsible tourism should be promoted in Ladakh. Travel agencies need to educate their tourists about litter and give them adequate instructions to improve the environment. Tourism needs to increase but it should not ruin cultures or the environment. We should put more dustbins around and we should not use plastic at all. There should be a good recycling system.” Tsering Dadul arranges trekking tours and tries to ensure that any material disposed by tourists is brought back with their guides to protect the environment. He also mentioned that organising workshops for the local population is important since it is equally important for them to be more educated about sustainability.



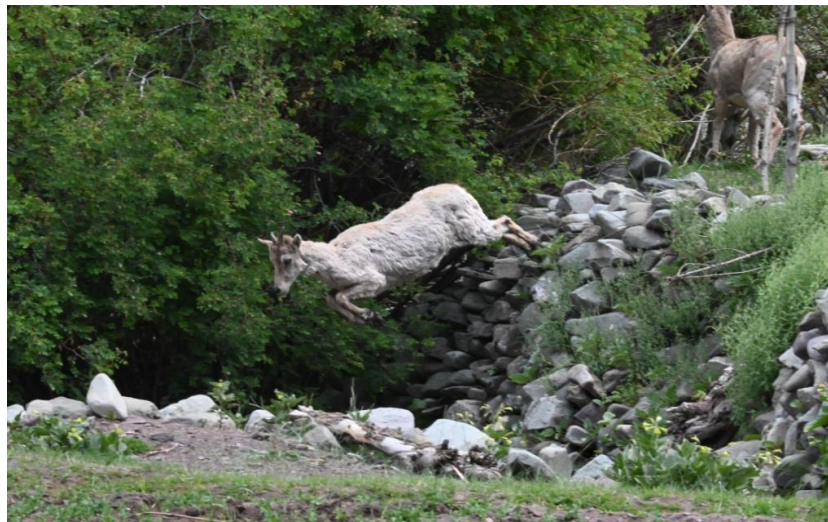
**A clean-up drive organised by the Snow Leopard Conservancy Trust to encourage more sustainable tourism on World Environment Day, 5<sup>th</sup> June 2022**

### **How does Ecotourism Contribute to the Economy of Ladakh?**

Ecotourism is a broad term and a wide field of study that refers to a specific branch of nature tourism with a focus on natural environments, conservation and culture. Ecotourism is the integration of wildlife conservation and human well-being which seeks to make conservation a continuous form of income for locals to support their lives and promote sustainability as a long-term incentive to people of rural villages to be more aware of the surrounding landscapes and wildlife. Most tours in Ladakh involve travel to relatively undisturbed natural areas to enjoy and appreciate nature. Thus, eco-tourism is a necessity in Ladakh, especially since several ill-planned development projects have taken place and uncontrolled tourism has had negative impacts on both the economic and socio-cultural aspects in urban and rural areas.

### **Wildlife Based Tourism**

Ladakh is home to a wide range of wildlife species that are adapted to its harsh environment and climate. This includes many endangered species such as the snow leopard and wild herbivores like the blue sheep and ibex. To protect and conserve its ecosystem, Ladakh has declared some reserved areas for its ecological sphere. One of them is Hemis National Park, a high altitude protected area created in 1981 in the eastern part of the region for the conservation and protection of its unique flora and fauna. Ladakh's land is also filled with dry forests of juniper, birch and fir and are home to the snow leopard, Tibetan wild horse (Kiang), ibex, Tibetan antelope and many more species. There are approximately 500 snow leopards residing in India that are protected under the Indian Wildlife Protection Act of 1972.



**Photograph of the Blue Sheep**

### **Snow Leopard Conservancy Trust of India**

The Snow Leopard Conservancy Trust of India (SLCTI) is dedicated to promoting measures to increase awareness in the local populations about the endangered snow leopard, its prey and habitats. They have been instrumental in developing a conservation-linked homestay program in Ladakh with the objective to create revenue for villagers from tourism and educate and promote environmental issues related to the habitat of the snow leopard. This wildlife-based home-stays initiative, known as the Himalayan Home stays Program. is aimed to help the village communities in snow leopard habitat areas to understand the importance of protecting the snow leopard and giving them an opportunity to generate additional income from tourism. These activities involve tourists staying in remote villages and helps provide additional income to those involved.

SLCTI's initiatives have focused on three broad objectives:

- Enabling local communities to generate additional income that can help offset livestock losses to snow leopards
- Enabling tourists to learn about the region's culture by staying with local families and experiencing a unique lifestyle
- Transforming the negative attitude of local communities towards snow leopard and other wild predators.

The success of this conservation model can be inferred from its adoption by several governments and non-government agencies not only in India, but also overseas.

Since the inception of the local tourism industry, most revenue generated from tourism was going to hoteliers and travel agents especially in Leh. SLCTI attempted to leverage this economic opportunity and incentivise villagers. As a result of this, the locals decided to host tourists in their homes where they pay a minimum amount to truly experience the local culture and allow a small percentage to go towards snow leopard conservation. The locals were given extensive training in cooking and behaviour etiquettes as well as identifying wildlife of the region such that they could accompany trekkers on snow leopard trails as nature guides. This was a win-win situation in several ways as it not only encouraged tourists to experience wildlife and the Ladakhi culture, but also gave local homeowners a secondary income and benefited the wildlife of the region.

Additionally, the SLCTI also constructed wire mesh pens in villages across Ladakh to protect the local community's livestock from snow leopards and wolves. While home stays and wire mesh



pens were introduced to offset livestock losses, more initiatives need to be introduced to reduce the dependency on livestock rearing as an occupation. By reducing their dependency on livestock, they will not be as affected financially by any damage done to their livestock by snow leopards and wolves. Since animal herders in Ladakh rely greatly on their livestock for a living, any harm done to their livestock at the hands of wild animals leads to retaliation killings. Reducing their dependency on livestock will lead to fewer of these retaliation killings, thus protecting the wildlife of the region.

### **Homestays**

Many tourist and wildlife areas across Ladakh have developed a network of homestays for tourists. Homestays offer local residents the opportunity to engage in tourism at low capital costs and also require limited time commitment, which enables the homeowners to continue with their regular household chores. In five villages surveyed<sup>1</sup>, the average yearly income for households involved in homestays have been larger than the average income for the entire village. These villages are located midway along trekking, making them more accessible to tourists on treks. By being on famous trekking routes, these homestays will frequently have guests due to the popularity of trekking amongst tourists in Ladakh. Thus, these five villages showcase the importance of tourism for the development of these local economies. Homestay households use their increased income to educate their children, maintain their homes, and invest in better healthcare, clothes and food choices.

In a study<sup>2</sup> conducted in the villages and households surrounding Sham village and Hemis National Park, it was evident that all households involved with homestays had three or more activities which contributed towards the household's livelihood. For instance, households generated income from running the homestays, renting horses for trekking and running a café, besides their regular source of income from agricultural and livestock. The average household involved with these tourist activities was gaining an additional income of over Rs 50,000/- per year. Hence, those directly involved in the homestay programs received more economic benefits than others and many of them felt positive about the increases in tourism in the area due to the economic, learning and capacity-building benefits.

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<sup>1</sup>Martin Smith, Andrew, *Homestays: The effects of ecotourism on livelihoods, the environment and wildlife in Ladakh, India*. A dissertation submitted in partial fulfilment of the requirements for the degree of Master of Science in International Natural Resource Development University of Wales, Bangor

<sup>2</sup> Himalayan Homestays: Fostering Human-Snow Leopard Co-existence, incentive and reward programs in snow leopard conservation, Tsewang Namgail et al, The Snow Leopard Conservancy Trust, Leh Ladakh, India

In another study<sup>3</sup> on wildlife and homestays based tourism, the results revealed that those who hosted visitors in their homes felt a higher responsibility for protecting wildlife compared to those who did not. They displayed a sense of pride towards the protection of animals such as the snow leopard. In another survey, 51% of all households mentioned that they were more aware of all wildlife issues and considered wildlife more important than they did in the past. A total of 34% of all households commented that hunting of wildlife had decreased or stopped completely in their local areas. Wildlife and tourism are closely linked in Ladakh, so it is useful to understand the relationship between the participation in the homestay program and views on wildlife. Overall, the local perception of wildlife seems to be positive and many people reported feeling happy with wildlife thriving in the area. Some also mentioned the importance of protecting the wildlife for future generations.



**A Homestay in Rumbak Village with a traditional Ladakhi kitchen for tourists to experience the Ladakhi culture.**

<sup>3</sup>Kate Vannelli, Tsewang Namgail, et al. *Community participation in ecotourism and its effect on local perceptions of snow leopard conservation*. Date of publishing- 02 January, 2019. Human Dimensions of Wildlife, Routledge Taylor and Francis Group



**Traditional Ladakhi patterns in the bedrooms of a Homestay in Rumbak Village and a traditional Ladakhi kettle.**

### **Rumbak**

One great example of the success of the conservation-linked homestay program in Ladakh can be seen at Rumbak, a small village of nine family households, all of which run homestays. Rumbak is located within the Hemis National Park and provides great sightings of snow leopards and other animals, which is a major tourist attraction. SLCTI helped the villagers of Rumbak in setting up community-based homestays, which are now supported by the Wildlife Department.

Tourists who are keen to visit Rumbak have no alternative but to stay at a homestay. The community has an understanding among each other that each family will get an equal opportunity to host tourists as this is done on a rotating basis. Additionally, each home contributes 10% of the revenue generated from this additional source of income towards community-managed conservation and village development funds, which are used for improving

roads and other conservation efforts. This is an exceptional model that showcases how a community has come together to support each other and protect the wildlife in their surrounding areas.



**Rumbak Village**



**Rumbak Village**



**A homestay in Rhumbak Village**

## **Snow Leopard Tourism**

The snow leopard is important for the economy and ecology of Ladakh in multiple ways. By keeping the population of wild herbivores like ibex, urial, and blue sheep in check, the snow leopard ensures that agricultural lands are not being overgrazed. If their numbers are not controlled by an apex predator, it can lead to overgrazing which can weaken and erode the fertile and fragile soil of the region. Consequently, agricultural practices are harder to conduct on degraded land.

Additionally, in areas around Hemis National Park, the snow leopard has encouraged the growth of local communities which incentivise the protection of the entire ecosystem. Homestays in small hamlets throughout the park provide amenities to adventurers and trekkers who visit in the summer and wildlife enthusiasts who come for snow leopard sightings in the winters. All tourists entering Hemis National Park contribute to its conservation in some direct or indirect way.



**The entrance to Hemis National Park**

## **Cultural Tourism in Ladakh**

Cultural tourism involves visiting a destination to experience and learn about a particular culture, its people, heritage and traditions. While Ladakh is a landlocked region, being at a cross section of the Indian Subcontinent, Central Asia and China (Tibet) has allowed a unique culture to foster

in the region which is strongly influenced by Tibetan Buddhism and Islam. Thus, tourists come here to witness monasteries scattered across Ladakh, the markets full of local products, Ladakhi food and the various Buddhist festivals organised throughout the year.

In terms of the handicraft sold in Ladakh, the locals are often encouraged to 'not produce what is sold but to sell what is produced.' As a result of increased consumer demand, the economy of Ladakh is getting damaged since the land is not able to meet the more modern demands of people due to the scarcity of resources in the area. One prime example of this is the concept of the 'dry composting toilets'. These toilets have been an integral part of Ladakh for the longest time due to water scarcity in the region and pipes freezing in extreme cold conditions. These toilets also play an important role in the Ladakh's economy, since the manure from the composting toilets is often used as a fertilizer in agricultural fields which are irrigated through ponds of water. However, with the great influx of tourism and foreign beliefs, tourists prefer using flush toilets as they associate it with being more sanitary and hygienic. However, by raising the demand for flush toilets, they often do not realize the impact they have on the local economy. When the utilization of dry composting toilets decreases, there is not enough compost for the agricultural fields, which forces villagers to sacrifice the pond water to support the growth of flush toilets. This causes heavy losses to the agricultural economy of the region. This is a perfect example of one of the consequences of 'producing what is sold.' Alternatively, the trend of "sell what is produced" can be observed in the handicraft industry. The handicraft industry of Ladakh has the main objective of providing training to the youth in various crafts by utilizing locally available raw materials so that they can minimize the burden of unemployment and to manufacture products for additional revenue.

### **Monasteries**

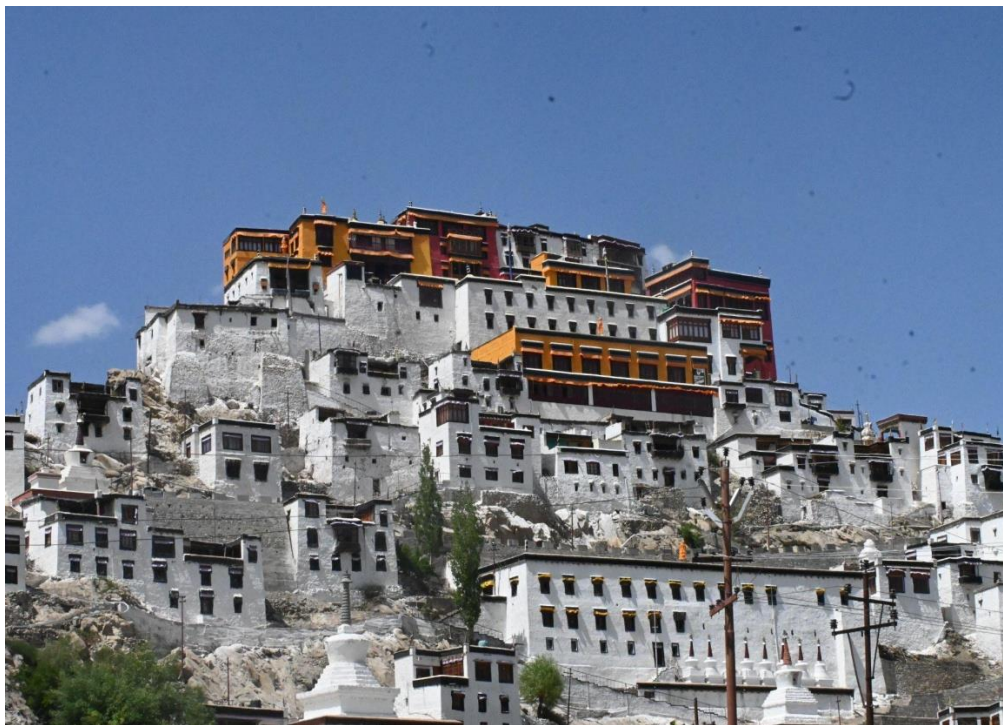
The monasteries of Ladakh play an important role in the cultural tourism of the region. With monasteries spread across Ladakh, each different and unique in its own way, they play an important role in Ladakhi and Buddhist culture.

Countless tourists visit Ladakh's monasteries each year. After speaking to a monk from the famous monastery in Leh market, I learnt that the income coming into the monasteries as a result of tourism is a great advantage and helps in maintaining the monasteries and supporting local communities.

Considering the number of tourists that visit monasteries and other Buddhist sights like the Stupas and Statues of Buddha, the Ladakhi Association of Buddhist Monasteries, the governing body of all monasteries, has asked all monasteries to start charging a standard fee of Rs 5/- or 10/- from each visitor. They have also established standard rules of do & don'ts for the tourists to

maintain decorum at the monasteries and religious sites. Some monasteries earn money by selling seats at their annual festivals which are mostly held during the winter. These festivals, which feature several days of ritual dances performed by monks in traditional dresses, attract tourists who brave the winter cold. When tourists buy tickets for the best seats at festivals, a lot of additional money comes into the monasteries, enabling them to use these funds to support the nearby communities and maintain the monasteries.

The Association, the government, and the community have united to prevent further commercialization of the monasteries' religious heritage. Selling or exporting antiques is prohibited, and strict measures have been taken to prevent the smuggling of artefacts.



**Photograph of Thiksey Monastery in Leh**

### **Handlooms – Pashmina**

Pashmina (or Cashmere as it is called in the west), which is considered as one of the finest and most expensive wool/fabrics in the world, originates from the Changthang region of Eastern Ladakh. Grown by nomadic and semi-nomadic herders who endure the harshest weather conditions, Ladakh pashmina is known for its fine micron size. It is recorded in the Guinness Book of World Records as the costliest fabric/wool in the world after the trade ban of the most precious natural fibre Shahtoosh (King of fibre).

This wool has shaped the socioeconomic dynamics of this region since the 17th century, when its trade began, and has the potential to play a vital role in the development and sustainability of Ladakh even today. However, over the last few decades, Ladakhi traders have not received the accurate market value for the Pashmina that they grow. Weavers and traders in other Indian states like Jammu & Kashmir have benefited immensely from Pashmina's high market value. Ladakh's pashmina has largely been traded in parts of Kashmir where it has been spun and woven into products and sold as cashmere. Despite the rich history and tradition of this fabric, herding communities of Changthang who have preserved the tradition of Ladakh pashmina face tremendous challenges to sustain this vocation.

The Changthang region is home to the Changpa people who migrated into the region from Tibet in the latter half of the first millennium. This community rears sheep, yak and horses and moves across the highlands of Changthang to graze their animals which provide them with milk, meat and wool. While the community depends on livestock for their economic sustenance, they are also a part of the global economy. Over the last hundred years, the community's life style has changed due to their attempts to adapt to the extreme climate and degrading agricultural landscape of the Changthang. Traditionally, the Changpa of Ladakh raised a greater number of yak and sheep and fewer pashmina goats because pashmina was exported into India from Tibet and Central Asia. However, due to China's military engagements with India in 1960, Ladakh's boundary with Tibet was sealed. With the demand for pashmina continuing to remain high in India, the Jammu and Kashmir government initiated the development of pashmina in Changthang along with medical care for pastoralists and livestock. Despite these initiatives, it is uncertain whether the coming generation of the Changpa will continue these traditions or choose to move into other vocations in urban centres.

The department of sheep husbandry and several non-for-profit organisations are working to develop a cottage industry to support the local community in improving the production of pashmina and other wool (sheep, yak and Bactrian camel). Leh district is one of the major producers of Pashmina. Pashmina products are considered as the best because of their fineness and length. The production of pashmina has become one of the highest income generating sources in regions such as the Changthang which contributes to the economic development of the district.

Having been a self-sustaining community for centuries, Ladakhis, including the Changpa, have traditional knowledge about different techniques of cloth making, mostly for their own consumption. There is a word in Ladakhi, "*shes-rig*," which denotes knowledge deemed essential within the culture and is worthy of being passed down generations; parents pass on *shes-rig* to their children. It includes skills such as knowing how to set camp in the middle of nowhere, starting a fire in the cold, cooking for one's survival and so on. It also includes the



skills required to make one's own clothes by removing wool from sheep, and cleaning, spinning and weaving it. Most Changpa women possess the basic skills of extracting wool, spinning and weaving (to a lesser extent), as these activities are a part of their domestic chores, along with cooking and raising children. As they live in an exceedingly cold place, many Ladakhis have learnt to cut and tailor their clothes to suit their requirements and know how to make items of everyday use like tents, horse saddles and carpets from local raw materials.

Climate change is also having an impact on the region. The average temperature in Leh has increased by 1 degree Celsius since 1973, the snow line has risen by more than 490 feet and glaciers have retreated by 10 kilometres over the past 100 years (Vince 2010). Alongside this, many villages have relocated due to severe water shortages, and continuously face challenges in maintaining sustainable water supplies for households.

The uncontrolled growth of tourism in Ladakh is another factor threatening the finely balanced ecosystem of the region. This shows that tourism in areas such as the Changpa is in fact not sustainable. The unplanned growth in the number of vehicles, mainly in the form of taxis to cater to the visiting tourists, has destroyed many grazing areas where the vehicles move off-road without difficulty. The lack of sustainable tourism is having a negative impact on the small communities and their production of Pashmina. This shows that despite how important sustainable tourism is to the environment and economy of Leh, it is evidently not being seen in a number of places since it is simply not feasible in all places.

The Changpa may hold the key to reviving the ecosystems of Changthang. They have been living in the region for so long that as a community they should be considered as the most invested in its long-term stability and ecological sustainability. Being practical people, they can be induced to take up the right practices if the incentives, and more importantly the benefits, are demonstrated patiently to them. Also, owing to their particular religious beliefs and due to their traditions, they can be expected to be sympathetic to ideas of environmental conservation and wildlife rights.

While the value of the raw pashmina traded in Ladakh yields an annual income of USD 128,800 - 154,560 per annum, different processes for adding value make the pashmina final products worth more than USD 2,576,000 (Shakyawar et al. 2013). Clearly, there is scope for retaining part of the value in pashmina processing in Ladakh. This could be done in many ways: selling pashmina as clean and carded fibre or yarn and in the form of finished pashmina articles like clothes and hosiery. There is a lot of potential for income generation in these activities, which could go directly to the herders and semi-nomadic Changpa. This has been successfully demonstrated by organisations like the Looms of Ladakh Women Cooperative. The cooperative is formed mostly by women from Changpa families in eastern Ladakh and some settled in

Kharnakling, near Leh town. The cooperative was created to help local Ladakhis better utilise the pashm trade to enhance their incomes by adopting industry standards of balancing locally available fibres and gradually work on realising the luxury potential of wool from yaks and Bactrian camels.

Looms of Ladakh is a big step for the women of Ladakh. "The cooperative gave us exposure and we learnt not just the craft but every aspect of the trade. When the COVID-19 pandemic hit, we hit a rough patch. But we soon moved online. We started selling our products more on Instagram and will soon have a website," said LobzangLamo, CEO of Looms of Ladakh.

Reviving a craft is not just about giving the artisans a platform but also about helping them grow and update their skillset. In the cooperative, the women are the designers who take inspiration from their everyday lives. "We look at what people are wearing across the big cities — the internet helps. We also observe the tourists who visit us. We have been developing our designs accordingly," said Lobzang, who is also an elected design officer. The cooperative runs like a democracy. There are elections where people file nominations and then there are polls that help elect women to all posts. This shows a sense of democracy and community which Looms of Ladakh and the making of pashmina have built as a result of tourism.

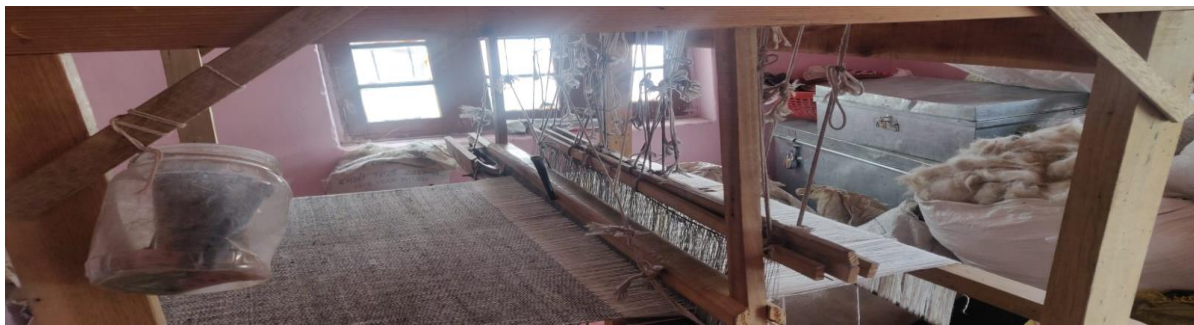
The women who were either homemakers or engaged in unskilled labour have found a way to not just learn a craft but have a successful professional and personal life. "My loved ones were very happy. We have been working here for more than four years now and it's a satisfying experience," said Sonam Palkit, from Kharnakling, who is a member.

SLCTI, in addition to their homestays program, have also started a handicraft development program which has now grown to become an important part of the community's conservation program and income generation incentive. Through this program, local communities are encouraged to promote their traditional arts and crafts. Community members, especially women are trained to use a variety of products to produce handicrafts. These products are then sold in souvenir shops and at major festivals all over India. This helps the local economy of Ladakh since it not only allows the local community to develop various new skills, but also provides them with an income which helps in offsetting the loss of livestock to snow leopards. Consequently, it is easier to encourage them to pay more attention towards the conservation of the snow leopard.



**Looms Of Ladakh store in Leh Market**

**Photograph from the Looms of Ladakh Centre**



**Photographs from the Looms of Ladakh Manufacturing centre**

### **Conclusion**

Conclusively, this paper argues that within Ladakh, a cultural and ecological hotspot, while tourism plays a key role, it is not sustainable in nature and is a growing concern. However, while tourism in certain areas such as Leh, Ladakh's capital city, is not leaning towards a sustainable route, with correct enforcements in place, the city can be placed on the right track. In smaller ecological communities, the development of homestays with the help of the Snow Leopard Conservancy Trust has encouraged community-based living and transformed tourism into a more responsible and sustainable activity. Simultaneously, the development of these homestays has allowed tourists to experience the culture of Ladakh, led to an increase in the income of these villahs and improved Ladakh's economy as a whole.

From a cultural perspective, the revenue generated by the tourism industry in the form of tickets to visit monasteries and other historical sights encourages tourists to preserve the ancient Ladakhi culture. The income generated through sales of pashmina products has encouraged the growth of a number of small villages and organisations like Looms of Ladakh which have provided many women with a source of income, making them a major contributor to the region's economy.

## **Sources Used-**

### **Online Websites**

Noda, Shoko, *Snow Leopards: Let Curiosity Save the Cat*, The Wire, Date of publishing- 23/10/2019, [thewire.in/environment/snow-leopards-climate-change-bishkek-declaration](http://thewire.in/environment/snow-leopards-climate-change-bishkek-declaration), Date Accessed- 27/05/2022

Irani, Jerroo et al, *Tracking the Snow Leopard in Ladakh*, National Geographic Traveller, Date of publishing- 05/04/2019, [natgeotraveller.in/tracking-the-snow-leopard-in-ladakh/](http://natgeotraveller.in/tracking-the-snow-leopard-in-ladakh/), Date Accessed- 27/05/2022

Author's name not mentioned, *Hemis National Park: An Icon of Conservation*, VOYGR Expeditions, Date of publishing- June 8th 2020, [voygr.com/hemis-national-park-an-icon-of-snow-leopard-conservation](http://voygr.com/hemis-national-park-an-icon-of-snow-leopard-conservation) Date Accessed- 27/05/2022

Balasubraminian, Sharada, *Snow Leopard Conservation brings socioeconomic benefits to Rumbak Village*, Village Square, Date of publishing- 16th February, 2018, [www.villagesquare.in/snow-leopard-conservation-brings-socioeconomic-benefits-rumbak-village/](http://www.villagesquare.in/snow-leopard-conservation-brings-socioeconomic-benefits-rumbak-village/) Date Accessed- 27/05/2022

### **Research Reports**

Martin Smith, Andrew, *Homestays: The effects of ecotourism on livelihoods, the environment and wildlife in Ladakh, India*. A dissertation submitted in partial fulfilment of the requirements for the degree of Master of Science in International Natural Resource Development University of Wales, Bangor

Kate Vannelli, TsewangNamgail, et al. *Community participation in ecotourism and its effect on local perceptions of snow leopard conservation*. Date of publishing- 02 January, 2019. Human Dimensions of Wildlife, Routledge Taylor and Francis Group

Bahuguna, Abhilasha et al, *The Changpa and Ladakh Pashmina: Craft Revivalism , Skill Development, and Ecology*

Himalayan Homestays: Fostering Human-Snow Leopard Co-existence, incentive and reward programs in snow leopard conservation, TsewangNamgail et al, The Snow Leopard Conservancy Trust, Leh Ladakh, India