

## **History and Functioning of traditional woolen industry in Munsyari region of Uttarakhand**

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### **Abstract**

The present paper aims to study the history and functioning of traditional woolen industry in Munsyari region. Munsyari is a prominent Tehsil of Pithoragarh district of Uttarakhand. Munsyari Tehsil is further subdivided into Talla Johar and Malla Johar. The residence of Munsyari belongs to Shauka and Bhotiya tribe. The region has a tough geographical terrain and a challenging climate. In the past this region had business relationships with Tibet. The people belonging to the region have their own unique tradition and practices. Woolen industry is a traditional source of occupation for the Shauka tribe. This woolen industry functions under the unorganized sector. In the past raw material (wool) was obtained from Tibet, which was of high quality. In the year 1962 trade with Tibet came to a halt which adversely affected the woolen industry. Some amount of wool was obtained from Tibet through Nepal. Tribal people of the region also reared Australian sheep. Wool from Angora rabbit was also used in this woolen industry for preparation of various articles. Traditionally natural dyes were used by the women to add color on the woolen fibers. The craft of making several unique woolen articles is mainly practiced by women with some contribution from their male counterparts. Shauka/ Johari women generally weave various woolen articles/ garments since ancient times this traditional art of are known as Peethi Chan which is a weaving technique. Women of this region weave several articles such as coat, trousers, shawls, thulma, chutka, pankhi, carpet/dan etc. In the present times this woolen industry is facing several challenges in obtaining raw materials and from the commercial woolen market.

**Keyword :** Traditional, Woolen industry, Shauka, articles, dyes, weaving.

### **Introduction**

Munsyari is a tehsil in the Pithoragarh district of Uttarakhand state that presents a scenic view of the snowy Himalayan Mountains. This charming hill town is situated at a height of 2298 meters above sea level (Jaishree 2017). Munsyari is also known as Little Kashmir. Five peaks make up Panchachuli, the main attraction in Munsyari due to its chimney-like appearance.

Panchachuli is a precious gem cherished by the majestic peaks of Nandadevi, Nandakot, Raja Rambha, and mountain in the Nepal Himalayas. Munsyari is well-known for its scenic splendor and trekking adventures (euttaranchal 2022). Bhotia tribe is one of the tribes that live in the Himalayan region of the state of Uttarakhand. The five sub-groups that make up the tribe are the Shaukas, Rung, Jadh, Tolchas and Marchas. The government of Uttarakhand has identified significant weaving related clusters in the state where people have long practiced weaving. These clusters are located in Pithoragarh (Dharchula and Munsyari), Uttarkashi (Dunda), Haridwar (Manglore), Dehradun district (Kalsi) and Chamoli (Chinka) (Prashant 2008). Carpets and other woolen crafts are made by artists in each of these clusters. The Shauka are also referred to as Johari or Johari Shauka and they reside in the Johar valley of the Gori Ganga River in the Munsyari tehsil of the Pithoragarh district. In Uttarakhand, this tribe is the oldest. The Bhotia tribes spend the winter months gathering wool and making crafts in Dhunda, and the summer months farming in Harsil (Uttarkashi district). Harvesting is celebrated like a festive occasion, with everyone harvesting each other's fields together, singing songs, snacking. A self-selected group of individuals oversees the upbanning, carefully leading the sheep from every family to the nearby pastures and green spaces. The tribe returns from Harsil to Dunda to start their weaving work at the end of the summer, when the sheep are fat from grazing in the plains and have fully grown hair (Patnaik 2021; Gulrajani 2020; Samaun The Himalayan Treasure 2017; Dhar 2010). This paper presents a glimpse of the history and functioning of the traditional woolen industry in the Munsyari region of Uttarakhand. It also highlighted popular products, marketing outlets, challenges facing by the woolen industry particularly in Munsyari region Of Uttarakhand state.

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## History of home scale woolen craft in Munsyari

According to Sher Singh Pangti Munsyari located in the Johar valley of Pithongarh district is the native place of the Bhotiya tribe. The Gori Ganga valley is known as the Johar valley and Munsyari the gateway to the Johar region is further sub divided into Malla Johar, Talla Johar and Goriphat, Munsyari is included in the Talla Johar region.

Bhotiya in the past prospered and flourished in the region as they had exclusive over the trade between India and Tibet. Each Bhotiya trade had a special correspondent in Tibet with whom they traded. For centuries the Bhotiya also known as Shaukas traded grains, jagreery and mishri for salt, borax and wool from Tibet. This trade ran on barter system and flourished through various generation of the Bhoti.va tribes. However, after the (India-China war 1962) this trade came to a halt and severely hit the economy of this region (Chakrabarty; Jaishree, 2017). For many years, trading links between Bhotias and Tibetans maintained. Earlier the raw wool was imported from Tibet; now raw wool is no longer imported from Tibet (Tripathi 2016; Dhar2010). The Shaukas traded goods with Tibetan traders when the snow melted in the summer months at Mana, the final trading station on the Indo-Tibetan border in Chamoli, up to the 1950s. The borders are currently closed (Chopra 2022). Up to the 1950s, all pashmina shawls were produced using fibers from western Tibet. This was bought and transported to Leh and Srinagar by a team of merchants known as Palace Traders, who had the exclusive right to buy pashmina from Tibet. According to an agreement (known as the Treaty of Tingmosgang), Tibetan nomads were required to sell pashmina only to traders from Ladakh. This protocol governed the pashmina trading between Ladakh and Tibet. As a result of the boundary dispute between China and India in the 1950s, this situation changed. Presently, major amount of the pashmina used in India comes from Ladakh (Himalayan weavers 2022).

The beautiful hills of Uttarakhand are the abode of the craft of weaving wool, initiated by the women of the villages. The tradition of passing down this art to the daughter by the mother has been carried out for many years (Patnaik 2021; Samaun The Himalayan Treasure 2017; Tripathi 2016; Dhar 2010). Traditionally woolen handicraft articles were manufactured in the hill districts of Uttarakhand. Cattle, sheep, and goats are raised in these high-altitude settlements and have a variety of uses. The natural growth of the wool industry in the area has been significantly influenced by sheep breeding practices. Sheep and goats are the primary sources of wool and color of wool comes in white and black. It was a matter of pride to own a particular breed of pashmina goat (Tripathi 2016; Dhar 2010, Asia InCH). The mountains terrain, cold climate and sunshine provides ideal conditions for rearing of animals such as sheep, angora rabbit and pashmina goat, which are original source of wool fibers. Weavers of Uttarakhand manufacture many woven articles every year, however their socio-economic condition continue to be poor (Pant and Pandey 2015). Only rabbit wool is used to weave items in the town of Darkot in Munsyari. The other wool used is Merino wool (wool from special breed of sheep), Angora wool (wool from Angora rabbit), Pashmina wool (wool from special breed of goats). They collected the wool from the sheep (they raised and it using age-old indigenous methods, including scouring, carding, spinning, and dyeing (Srivastava and Goel 2018).

In Munsyari region traditional handlooms, pit looms, and frame looms were used for the weaving. The wool is cleaned and dried after the sheep are sheared so that it may be spun into thread for weaving. Traditionally, the wool was cleaned and carded by hand. The rough wool was transformed during the carding process into a thin, spotless, homogenous strip that can be spun into a yarn with an even thickness throughout. The yarn was spun on a charkha, a traditional spinning wheel, and then it was ready to be knitted or woven.

In Uttarakhand, Bhotia's primary traditional art and craft is carpet weaving; Shauka, Ran, Talchha, Marchha, and Nilang Jad tribes engaged in weaving carpets. These are essentially woolen carpets with specific Buddhist motifs and designs. Tribes in Uttarakhand weave numerous varieties of woolen blankets. The well-known art work of this tribe is a carpet or "clann" in the local language. On the other hand, they also weave patterns inspired by nature, religion geometry, politics, society, and history. In addition, Munsyari is well known for its rugs and pashmina shawls. The Dunda weaving cluster in Uttarakhand is famous for carpets and pashmina shawls (Tripathi 2016). Munsyari produces some of the finest cashmeres in the world. The dunn which is a type of rug and the thulma a unique bedspread are made by the Bhotiya weavers (Patnaik 2021).

The home scale woolen craft is now being supported by a few cooperatives, NGO and government

laws. This home scale industry where most weaving processes are done manually has no carbon footprints. Even though Uttarakhand's woolen handicraft sector is highly known for the originality of its designs and weaving patterns, it hasn't been able to gain a sizable market share in either the domestic or foreign markets. Saras market is the only local market in Munsyari region. The woolen handicraft industry faces number of problems which need to be addresses (Pant and Pandey 2015).

### **The Role of Grazing**

In a grazing system, the animals mostly make use of developed or naturally occurring pastures, according to Rubino and Toussaint (2002). Farmers replace the grass with forage or fodder when it is limited due to environmental factors such as drought or snow. Continuous grazing and rotational grazing are the two primary grazing systems. Continuous grazing is a way to graze cattle on a specified piece of land where the animals have year-round (year-long continuous grazing) or seasonal (growing season continuous grazing) access to the grazing land. The purpose of rotational grazing is to enable Vegetation and soil a rest period to heal and to enhance vegetation conditions. Strip grazing is frequently utilized when grazing yearly forages and forages that have been stored. In this approach forage is allotted using a transportable; electric fence for a brief period of time, and then forage is provided again by moving the fence ahead. Additionally, it can be used at specific periods of the year when grazing particular forage species, such as hay in the late fall when forage resting is not a concern. One more grazing is switchback grazing is the practice of dividing one pasture into two different pastures. It is a beneficial system for a producer who lacks sufficient resources, land and manpower (Malmstrom 2020).

Grazing can help the regeneration of new grasses, stop soil erosion, the preservation of medicinal plants, according to Food and Agriculture Organization. Grazing can stop and reverse land degradation, biodiversity loss, promotes the sustainable use of terrestrial ecosystems, battle desertification, and combat climate change and its effects. The Forest Division has a 10 year working plan for all protected forest areas identified as pastures. Using a rotational grazing strategy, grazing licenses are issued for a portion of the pasture land based on this program. The number of sheep and goats has exceeded the carrying capacity of forests and overgrazing damages forests. The cost of grazing is constantly rising. It cost Rs. 1 for sheep and Rs. 2 for goats in 2011. By 2021, the price had increased to Rs 8 for sheep and Rs 16 for goats. Because to the increase in goat and sheep populations, there is a deficiency of good quality fodder in 11 out of Uttarakhand's 13 districts (Singh 2022).

The Kumaon Himalayan ecological zones, where the Bhotiyas migrate, each have their own potentials and environmental constraints for forest use, grazing use and crop production, (Nüsser 2006). The amount of the snowfall or the starts of the vegetative seasons in various altitudinal belts are two examples of environmental factors that have potentials and restrictions for pastoral land usage (Bergmann et al. 2012)..

According to Rautela and Karki (2015), the region's market-driven cash economy has resulted in a sharp fall in the number of households utilizing the alpine pastures. Herd size and high altitude grazing intensity have decreased A new threat to the livestock's existence is the fact that some grazing areas have been declared biospheres and sanctuaries, making them protected The locals frequently have to pay grazing taxes and are frequently refused the right pastoralism by forest officials. In 1998, Lata (villager) organized the “Chheno-jhapto Andolan” with the help of some NGOs from Dehradun and the local pradhan, Dhan Singh Rana, to protest this in the Niti of the Nanda Devi Biosphere Reserve. The locals were forbidden from entering the biosphere reserve, and the alternative grazing pasture that had been promised never materialized. The aim of the demonstration was to enter the protected area's forest and occupy its grazing lands. For pastoralists, market orientation and globalization have led to a number of issues, including the privatization and commercialization of resources under communal regulation (Agrawal 2005). Political interferences and socio-economic changes have impacted the nomadic and land usage patterns of the Bhotiyas (Bergmann et al. 2012).

### **Traditional Woolen Costumes of the Munsyari region of Uttarakhand**

Women of the Bhotia Tribe typically wore Honju, Chhua, and Pangden as their traditional clothing. Chhua was ankle length, sleeveless garment which was mainly made up of woolen fabric. Pandgen (resembled like Apron) was made up of multicolored woolen cloth for married women. The Bhotia people manufacture their own personal clothing in house. The forehead was covered by headdresses like the pattu (a rectangular

piece of cotton or wool fabric). The term "Bakhu" refers to the traditional clothing worn by Bhotia males, which is a loose cape garment (similar to the Tibetan chuba but sleeveless). Chubas are made of wool, the plain gray wool. Galuo, Sompas, and Duozha shoes are some examples of Bhotia's footwear. They were handmade from natural materials like pulu, furs, and woolen clothing (Gulrajani 2020). Chyung Bhala a rung traditional dress is the main product of Dharchula (Laha et.al 2020; Srivastava and Goel 2018).

### **Traditional Sources of obtaining wool in the Munsyari region of Uttarakhand**

In Munsyari region wool obtained from the following sources:

#### **Sheep and Goats Wool**

In Uttarakhand, sheep and goats are the primary sources of wool production. The Bhotias of Uttarakhand were mostly shepherds and raised a huge number of sheep and goats. Wool from sheep and goats is often white or black in color (Tripathi 2016; Dhar 2010, Asia InCH). Rabbit wool and sheep wool are mixed to provide the weave additional softness, sheen, and whiteness (Asia InCH).

#### **Angora Wool**

Angora wool is obtained from Angora rabbit. The cost of processed wool is Rs. 3000/kg while the cost of raw wool is Rs. 2500/kg. From the fur of these rare and precious animals, stoles, shawls, and caps are made. Angora fibers are some of the world's finest (12 to 16 micron) varieties of wool fibers. It is very fluffy and smooth. Compared to most forms of wool, angora fur has higher heat-retention capabilities. Angora wool is ideal for persons with allergies to animal hair since it lacks the allergenic qualities that are present in other varieties of wool (Mukharjee 2022; Singh 2021).

#### **Pashmina Wool**

Cashmere goats are the source of pashmina wool (Laha et al. 2020', Tripathi 2016). The pashmina originates from the Persian word 'Pashm', which means wool. Shawls and stoles can be made with this wool because it is the softest and highest grade available. It is the priciest wool. costing about Rs. 6000 per kg. Pashmina wool was mostly imported from Tibet in the past (Prashant 2013). Currently, the wool is extracted from the undercoat of a particular breed of goats found in the high elevations of the Changthang region of the Himalayan hills. In recent years, Ladakh has contributed significantly to India's pashmina supply. A goat typically yields 250 grammas of raw pashmina. It is estimated that the Changpas have between 150,000 and 200,000 pashmina goats, which generate 35 to 40 tons of pashmina annually. In recent yearsw there has been a significant increase in the demand for pashmina (Himalayan weavers 2022).

#### **Harsil Wool**

Wool manufactured locally in the Garhwal region of Uttarakhand. The coarse, regional wool produced by the indigenous sheep of Uttarakhand has a distinctive texture. In contrast to other types of wool, is more durable and warmer (Gupta 2013; Asia InCH; Pinterest).

#### **Lokh**

Lokh has a coarse texture since it is made from aged, very low-quality sheep and goats of the local breed. The price of lokh is 1 10 Rs./kg (Laha et al. 2019).

#### **Hand and Machine-Spun Australian merino wool**

This wool is both locally made in India and imported from Australia. It is used to blend with various silks to produce a variety of softer items since it is softer than Tibetan wool (Avani 2019)

#### **Merino Wool (sheep)**

Some of the finest and softest wool cotnes from a particular breed of sheep. Due to its purity, the cost of Merino wool ranges Crom Rs. 1200 to 1500/kg (Gupta 2013; Asia InCH)

#### **Steps involved in the processing of procurement of wool fiber to the dyeing of yarn**

According to Dantyagi 1983 the processing steps involved from procurement of fiber to dyeing of yarn are as follows:

**Shearing:** It means the removal of hair from the animal. The shearing of sheep was done with the help of

scissors by the local people in the past. It was a very time-consuming process. Tribal people used to shear twice a year between the months of April-May after winter and September-October after the rainy season (Laha et al. 2020; Rawat et al. 2019).

**Grading:** It is a process of separating the wool according to the quality. The tribal people separated the body wool and stain pieces manually from the bulk of fibers using grading table. The wool was also graded according to the length and fineness. Long and fine length wool was generally used for making clothing fabric while the coarse fibers were used for making quilts and carpets. (Laha et al. 2020; Rawat et al. 2019).

**Scouring:** It refers to removal of all the impurities adhered to the wool fibers like dust, stain, grease etc. The Bhotia tribal people applied the warm water method for scouring. A natural hot water source provided the warm water. The wool fibers were soaked till water turns lukewarm. Reetha nut (*Sapindus mukorosii*) was employed for scouring and washing. Saponin, a natural detergent found in Reetha, was once used to clean wool fibers (Puskar, 2012). Then the wool fibers were rinsed with lukewarm water and dried in sun. It generally took 2 to 3 days for wool to completely dry up. The scouring process improved the aesthetic quality of the fiber (Laha et al. 2020; Rawat et al. 2019).

**Carding:** It was done manually using carding brushes which were made of wood with fine, flexible nails on the surface. The fibers were taken out and beaten with the wood stick of ruees (*Cotoneaster affinis*). The specialty of the stick was that while beating it wouldn't break easily and left no wooden residue in the wool. The wool fibers were spread on the surface of one card/paddle and another card was used to brush. It removed the physical impurities and short fibers and further aligned the fiber along one direction (Rawat et al. 2019; Agarwal 2018)

**Spinning:** The spinning was done on Bageshwari charkha or taku/takli. Taku was used to make thick yarn, whereas charkha was used to make fine yarn. The carded wool fibers were held in the left hand and fed to the charkha driven by the treadle or taku/talki driven by right hand. For making thick yarn taku was used while for making fine yarn charkha was used. Taku was a small spinning machine and was portable. The prepared yarn was then wrapped around the bobbin (Rawat et al. 2019, Laha et al. 2020).

**Dyeing:** It was used to color the woolen yarn. In the past the Bhotia tribe employed natural colors for dyeing that were derived from plant materials that were gathered from adjacent forested areas. The natural vegetative dyes were obtained from jangali palak and others. The procedure of dyeing included drying of plant material and grinding it into powder form. The dye was extracted through overnight soaking and aqueous boiling method, its filtrate was used as a dye solution. The yarns were dyed in hanks using open bath container and aqueous method. The hanks of yarn were dipped in the hot filtrate, stirred continuously until the dye solution turns lukewarm. The soda ash was added for improving color properties. Then the hanks were rinsed in cold water and hung for drying. The colors were obtained brown and yellow. (Rawat et al. 2019; Laha et al. 2020; Tripathi 2016; Asia InCH)

### Traditionally used equipments and tools for weaving in Munsyari region

**Kayun (Comb or brush):** A pointed tooth brush was used to clean the woven blanket (The Explained Post 2022).

**Punja:** The threads were tightened with Punja before the Dan was formed (The Explained Post 2022; Laha et al. 2020).

**Khukri/Knife:** The thread was cut with it (The Explained Post 2022; Laha et al. 2020).

**Scissors/Kaichi:** The woolen ends were paralleled, the fiber was trimmed, and the Dan was given shape (The Explained Post 2022; Laha et al. 2020).

**Ranch:** A wooden or metal structure (loom) on which the Dan is developed, locally known Bartan (Laha et al. 2020).

**Biring:** To sustain the stiffness of the woven blanket, bamboo sticks were utilized during the weaving process (The Explained Post 2022).

**Wood stick of ruees (*Cotoneaster affinis*):** It was used to beat the fibers; the specialty of the stick was that while beating it wouldn't break easily and left no wooden residue in the wool (Rawat et al. 2019).



**Carding brushes/ Kanga:** It was used to align short fibers. Carding brushes were made of wooden materials and had surface-mounted, fine, flexible nails. One card was used as a paddle to disperse the wool fibers, and another was used as a brush (Rawat et al. 2019).

**Traditional spinning wheel/ Charkha/Bageshwari charkha or taku/takli:** The spinning was done on Bageshwari charkha or taku/takli. A charkha, a conventional spinning wheel, is used to manufacture the yarn (The Explained Post 2022; Patnaik 2021; Rawat et al. 2019; Avani 2019; Agarwal 2018; Samaun The Himalayan Treasure 2017; Dhar 2010; Asia InCH).

**Katliya:** Threaded rod used for hand-spinning threads (The Explained Post 2022).

**Weaving Loom:** It was used to weave the carpet. An upright loom was used to weave coarser material, whereas a pit or frame loom or waist loom was used to weave finer fabric (The Explained Post 2022; Patnaik 2021; Avani 2019; Dhar 2010).

**Flying shuttle:** It was used while weaving. Traditional looms required two weavers to sit side by side and pass the shuttle between them in order to weave wide fabrics because the shuttle be manually thrown or passed through the threads (The Explained Post 2022).

**Needles:** Needles were used for knitting. A different level of fabric manufacturing in the area has been reached by knitting (Dhar 2010).

### **Use of traditional natural vegetative dyes for wool dyeing in Uttarakhand's Munsyari region**

Every artisan community has a history of using natural colors. The Shauka community is also familiar to using and knowing about natural dyes. Veggie sources were primarily employed to obtain the colors. The leaves of Shyama when boiled turn a brownish-red color like henna. Before boiling, these leaves were sun-dried. Browns, yellows, and pink were historically the only colors available from these dyes (Avani 2019; Tripathi 2016). The Bhotia tribe used wild plant species to dye their woolen items, according to a study by Rawat et al. (2019) on Sustainable Traditional Dyeing of Wool by Bhotia Tribe in Himalayan Region. Kilmora (*Berberis asiatica*), akhrot (*Juglans regia*), burans (*Rhododendron arborium*), harda (*Terminia chebula*). Tea leaves, tantri (*Rheum moorcroftianum*), kaphal (*Myrica esculenta*), darim (*Punica granatum*), and bagmaru (*Eupatorium*), dholu (*Rheum aysraale*), and were used to make these plant colors (Sharda and Rastogi, 2013). Only the Shauka and Jadh tribal groups currently color woolen yarn with natural colors. The Bhotia tribal people's decreased use of natural colors is due to the government's restrictions on harvesting certain plant species, the extinction of plant species, natural disasters, changes in land use, the ease of access of synthetic dyes and colored yarns at low prices in the market (Rawat et al. 2019).

### **The current state of wool dyeing in Uttarakhand's Munsyari region**

The age-old talent using of natural dyes is currently being slowly displaced by mass-produced, inexpensive items using artificial dyes. With the help of ancient techniques, natural dyes, and materials like wool, silk, and pashmina, EarthCraft's (Self Reliant Cooperative) in the Munsyari region working in developing new color palettes. EarthCraft only sells hand-woven items that have been organically colored (Avani 2019). The conventional method of wool processing used presently amongst Bhotia tribe has changed. The traditional process of manufacturing wool textiles by the Bhotia tribe was more sustainable as compared to the recent process and had no or very less impact on the environment (Rawat et al. 2019). These were particularly used by craftsmen of Shauka and Jadh sub-groups of Bhotia tribe for dyeing woolen yarn the conventional has been improved due to the advancement in technology which resulted in increased use of manufactured resource that are mostly synthetic in nature. Chemical dyes have taken the place of the historically popular natural colors since Tibet's border trade stopped (Tripathi 2016). The craftsmen of other sub-group had started to use synthetic dyes for coloring wool yarn. Reasons for increased use of detergents and synthetic dyes are their easy availability at low cost and ease in the application during scouring and dyeing, respectively. The effluent from households was released into the drainage system, which led to the flowing water bodies. The development under Namami Ganga project (2015) was the establishment of the sewage treatment plant in hill areas which might also reduce the impact of synthetic materials in scouring and dyeing processes.

### Woolen articles manufactured in the Munsyari region

Following woolen articles are produced by the Bhotiya women:

**Dann:** a hand-woven rug manufactured by the Bhotias (Johari Shaukas of Munsiyari, Rungs of Dharchula, and the Tolchas and Malchas of Garhwal) of Uttarakhand. The Tibetan knotting technique is used to make Dann (floor and bed coverings) as well as Asanas (small carpets). It has certain Buddhist (Tibetan) motifs and designs and also other natural, geometrical, religious, social, political and historical designs. Dann takes almost one and a half months to finish. The UHHDC has started marketing Dann through its outlets as well as online. The cost of a Dan is around Rs. 6000. The durability of a Dann ranges from 20-25 years (Patnaik 2021; Laha et al. 2020; Tripathi 2015; Samaun The Himalayan Treasure 2017).

**Thulma:** a very thick woolen handmade blanket, made of pure wool woven by women weavers with hand-spin woolen and cotton threads on traditional throw fly shuttles, was traditionally woven with white wool or uncolored wool. But now, to meet customers' demand, it is also now woven with dyed wool. The blanket is specialized for its fine quality hairy effect and can be used in the upper Himalayan region, And it gives a lot of warmth in an effective manner. The...traditional Thulma is about seven feet long with a width of 5.5 feet, and weighs between 4-6 kg. A Thulma survives many generations, at least a hundred years. Each is priced between 3,500 and 6,000 rupees, depending on the purity of the wool. But it takes hard labor and a lot of time to make (Chopra 2022; The Explained Post 2022; Patnaik 2021 ;Chakrabarty 2017).

According to Rawat et al. (2019), weaving the Bhotia people of Munsyari were involved in Well-designed quilts (thulma), from carpets (dun and asan), blankets (pankhi), and fabric self-processed fibers types of Dann and dyed yarns of wool. In Madkot Munsyari, there are mainly three being weaved in this mog Dann, region, viz. Kvong Dann, the longest of all three Dannels, which has a design of a dragon bed or in the centre, and Kaleen, the largest Dann used as floor cover. Apart from Dann, other products like Chutka, Thulma, sofa-set Dann, Asan etc also manufactured in Madkot. Products found at Saras market are Angora Cap, Shawl, Sweaters, Muffler, Socks, Gloves, Bartman Wool Sweater, Coarse wool socks, Stole, Pankhi (Shawl made up of local wool), Dann, Thulma (Blanket made up of local wool), Chutka (Blanket made up of local wool), Coarse wool carpet, Merino Shawl, Coats made up of Aril, Coarse wool sweater. According to Dhar (2010), popular products in the Munsyari region were knitted dann carpet, mufflers, saai (cap), kangsuk (socks), laakhshu(gloves), woven suit lengths, shawls,stoles, dumkar (blanket) and paagad (belt).

### Market outlets for manufactured articles in the Munsyari region of Uttarakhand

The weavers of Munsyari sell their goods at local fairs, trade shows, exhibits (Jauljibi Mela in November, the Thal Mela in January, and the Bageshwar Mela) and through SHG outlet, Himadri emporium. These are some of the most popular marketing platforms for the manufactured woolen articles. In Munsyari, the market of local woolen cottage industry is only the Saras Bazar. The market of all three places (Munsyari, Madkot and Dharchula) are small village markets, therefore it is governed by the attitude of the locals towards this industry (Laha et. al 2020; Pant and Pandey).

### Constraints faced by the woolen industry in the Munsyari region of Uttarakhand

#### Lack of raw material availability

The Bhotia woolen industry is really declining at the moment. Since Tibet cannot supply Bhotias with the raw materials they need, they began buying a type of Australian wool from the gaddi tribes in Himachal. The lack of sheep and goat ownership among households in the villages is a cause for concern. The tradition has been negatively impacted by the lack of raw Tibetan wool. Pashmina fibers in their unprocessed form were historically transported into Pithoragarh by Bhotia traders from Tibet, People from Munsyari purchased it from there, cleaned, de-haired, hand-spun, and weaved it into shawls. Hundreds of individuals were employed in this successful cottage sector, which generated earnings and it continued to carry the craft. Recently, factories for the production of mechanized pashmina yarn have been established in Delhi and Ludhiana. They buy practically everything transported into Pithoragarh from Tibet because they need so much pashmina, leaving very little for Munsyari's local traders. There are now very few weavers using pashmina there (Wool Division 2018; Tripathi 2016; Pant and Pandey 2015).

### **Gaps in Production/ Processing**

According to Pant and Pandey (2015), craftsmen are forced to use whatever quality is available due to a lack of access to the necessary raw materials. Because the majority of craftsmen come from economically underprivileged areas, they frequently lack the resources needed to meet working capital and other needs. When compared to the amount of time and effort artisans commit, their profits are pitiful. Despite the market's growing need for innovative and contemporary patterns, artisans continue to produce objects using time-honored traditional designs. Craftspeople have been compelled to keep weaving the traditional patterns because there is a lack of consumer and market research, training, and skill-development programmes. Their quality, production, and costs are adversely impacted by this (Wool division 2018)

### **Size of Market (small markets)**

Other marketplaces, aside from Dharchula, are small in terms of the number of stores, the range of goods, the distribution network, etc (Laha et al. 2020).

### **The risk of wear and tear of products**

Wear and tear of carpets is another major challenge as these Nepali merchants itinerant roam door to door repeatedly showcasing their stuff to directly sell the products. Carpets are bulky and voluminous products and the merchants can cover only a limited area (Pant and Pandey 2015).

### **Seasonality (winter season, tourism and fairs)**

It's one of the most common causes of little interchange of goods and services. Businesses only purchase local wool from herders every two to three months i.e. September to November. Additionally, marketing is primarily done at fairs and during a certain season, when tourists visit and local ceremonies take place. Three large fairs, the Jauljibi Mela in November, the Thal Mela in January, and the Bageshwar Mela in February, are held annually and have a huge impact on weavers throughout the region. The largest venue for showcasing local goods is during these fairs (Pant and Pandey 2015).

### **Competition with synthetic goods**

The market's low-cost synthetic goods must fight with the locally produced woolen goods. The premade items or synthetic wool are typically imported from Ludhiana. Contrarily, items produced of local wool cost more since they require more time and labor to complete. It has been noted that local wool makes up the 30% of Dharchula market's businesses while 70% of them offer synthetic wool (Laha et al. 2020; Agarwal 2018).

### **Lack of monitoring of government support**

In Madkot, Dharchula, and Munsyari, there are government subsidies, training programmes, and support for infrastructure, but they are not closely monitored (Laha et al. 2020)

### **Effect of Natural disasters on the transport facility**

Natural disasters adversely affect the transport facility. These three locations are all located in the Himalayas, in the easternmost region of the state of Uttarakhand, close to the Nepal-India border. These regions are vulnerable to natural disasters like land sliding, which severely harm the transportation infrastructure. Selling local goods abroad and obtaining raw materials from other states appears to be a problem (Laha et al. 2020).

### **Other Barriers**

Lack of interests and lack of awareness in young generation. The younger generations frequently lose interest in traditional goods and become more attracted to imported synthetic goods. Due to progress, education, and a lack of knowledge. among the younger generations on the importance of these traditional arts and crafts are more likely to deteriorate (Tripathi 2016).

### **Economic status of artisans**

Most folk and tribal performers are known to experience the hardships of poverty. They quit their traditional profession since their products are expensive and in less demand (Tripathi 2016).

### **Lack of access to modern technology and technical education**

Historic artists and craftsmen are good at working with traditional methods and tools. Another factor bringing these art forms to the brink of extinction is their lack of access to modern technologies, a lack of technical education and resources (Tripathi 2016; Pant and Pandey 2015).



### Health issues faced by women working in the traditional woolen industry

Chronic bronchitis, shortness of breath, persistent sneezing and persistent conjunctivitis are problems pertaining to exposure to wool dust. In the small-scale industry's spinning sector, it was discovered that women's primary issues were pain and exhaustion (Metgud et al. 2008).

### Conclusion

The tradition of passing down this weaving art to the daughter by the mother has been carried out for many years. Weavers of Uttarakhand manufacture many woven articles every year; however, their socio-economic condition continues to be poor. The main activities of craftsmen throughout the summer include weaving and obtaining wool. They only sell their goods in the winter. The mountains terrain, cold climate and for rearing of animals sunshine provides ideal conditions such as sheep, angora of wool fibers. The other wool rabbit and pashmina goat, which are original source used is Merino wool (wool from (wool from aged sheep). They special breed of sheep), Lokh collected the wool from the sheep they raised and processed it using age-old indigenous methods, including scouring, carding, spinning, and dyeing. For weaving traditionally used equipment were Kayun (Comb or brush), Punja, Scissors, Knife, Biring, wood stick of ruees, carding brushes, Bageshwari charkha or taku/takli, Katliya, Kayun, Ranch Weaving Loom, Flying shuttle, and Needles. The Bhotia tribe used wild plant species to dye their woolen items. With the help of ancient techniques, natural dyes, and materials like wool, silk, and pashmina, EarthCraft's (Self Reliant Cooperative) in the Munsyari region working in developing new color palettes. Reasons for increased use of detergents and synthetic dyes are their easy availability at low cost and ease in the application during scouring and dyeing, respectively. Shauka, Ran, Talchha, Marchha, and Nilang Jad tribes engaged in weaving The dann which is a type of rug and the thulma a unique bedspread made by the Bhotiya weavers. Saras market is the only local market in the Munsyari region. They sell their goods at local fairs (Jauljibi Mela in November, the Thal Mela in January, and the Bageshwar Mela in February), trade shows, and exhibits. Respiratory problems, pain and exhaustion were some health issues faced by the working women in the traditional woolen industry. The handloom sector is an important sector providing large scale employment in rural areas as well as preserving heritage. The fact is that the traditional elegant culture in this area is dying off slowly. This sector however is confronted with various supply chain issues such as, low productivity, inadequate working capital, increasing cost of raw material, inadequate distribution channel and poor promotional activities, absence of market intelligence etc. Reviving the woolen cottage industry in this region might give a boost to the local economy and act as a boon to curtail loss of heritage and outmigration from Uttarakhand hills.

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