

STATEMENT OF CASE FOR BHANDARA TUSSAR SILK

1. The hand-woven products of the country constitute a timeless facet of the rich cultural heritage of India. As an economic activity, the sector contributes immensely to the economic development of the country in general and artisans of the rural India in particular as most of the products belong to rural area of the country. The element of art and craft present in hand woven and its appreciation by the customers of the foreign country and in domestic market make it the potential sector for both development of rural India and increasing the export of the country. Further, the handloom products constitute a precious part of the generational legacy and exemplify the richness and diversity of the country and the artistry of the artisans of the country. The production of traditional products and integration of it to the modern designs and as per the demand pattern of domestic and international buyers also providing a very good platform to these traditional products for realizing the true potential of the products.
2. The hand woven is unparallel in its flexibility and versatility, permitting experimentation and encouraging innovation. Innovative artisans with their skilful blending of myths, faiths, symbol and imagination provide the craft an appealing dynamism. The strength of the sector lies in introducing innovative and new designs. The Government of India, state Government, Civil Society Organisations are working at various levels to provide various kind of socio-economic and legal protection to the sector as a whole in various ways in order to make it sustainable and competitive in the globalised era. There have been constructive efforts to provide them legal ownership under existing law. As a result, the sector can mitigate the negative effects of globalization and harvest the benefits from it.
3. In India Silk reeling was practised since the ancient times, and the silk fabric has reference even in the vedas & popular epics, namely Ramayan and Mahabharat. In Rigved which is one of the four Vedas, there is reference of Silk cloth. In Ramayan there is reference of Rishimuni wearing Silk cloth and even in Mahabharat, there is a mention of Draupadi wearing the silk cloth. Thus we can assume that the silk is in use long ago.
4. Mulberry, Tussar, Muga and Eri are the silk varieties. Tussar is called Kosa in Sanskrit. Bihar, Madhya Pradesh, Orissa, West Bengal, Maharashtra, Uttar Pradesh, Manipur etc. are the Kosa silk producing states. Kosa Silk reeling firstly started in

China; thereafter it spread over to other countries in the world. In Tussar i.e. Kosa Production, India is placed in second rank, whereas China is first. Other countries producing Kosa are Japan, Kenya, Thailand, France, etc.

5. During Mughal regime, Silk reeling was given priority and in the middle era, weaving work was carried out. Silk reeling was firstly initiated in the State of Karnataka. Tipu Sultan encouraged cultivation of Mulberry trees in Mysore. Even today Mysore is very popular for silk. During the middle era, i.e. around 400 years back, Mr Fahyan, a traveller of China, referred Aarmori and Ekodi (now in the district of Gadchiroli) for Tussar Kosa yarn. Further Abul Fazal one of the nine important persons of Akbar wrote "Aaene Akbari" book wherein Aarmori is referred as Vajragar.

6. The Government of India established a Directorate of Silk Development in 1945. In the year 1949, Central Silk Board was established and under the aegis of this Tussar Research Centre is established in 1964. In the production of Tussar Silk, the role of manpower and food trees of silk worms is very important. The reeling of Kosa Silk is a tradition in rural areas and it is an employment means for the Adivasi People. There are about 190000 families of Adivasi engaged in this field of silk production in India. Due to availability, sufficient of food trees, there is immense potential for the growth of Tussar Silk Production.

7. Kosa silk is basically produced in central India in Chattisgarh region. Kosa silk is known for its comfort and popular in other countries. Bilaspur, Raigarh, Champa of Chattisgarh are known for kosa silk and its produce by Dewangan community. Also known as Tussar Silk, Kosa is valued for its purity and texture. Kosa Silk is drawn from cocoons especially grown on Arjun, Saja or Sal trees. Kosa silk is widely popular for its softness and elegance. Being a shiny, lustrous and soft silk, Kosa is extensively used for making traditional Indian dresses including sarees, kurtas, salwar suits, shirts and many more garments. Available naturally in shades of gold-pale, dark, honey, tawny, baccoto beige, creamy, etc. Tussar Silk is considered an ideal as well as auspicious wear for marriages, religious ceremonies and other important functions. The kosa silk is widely demanded due to its excellent quality.

8. Bhandara is the district headquarters of historical importance situated on the bank of the Wainganga River, 900 km east of Maharashtra capital Mumbai. Bhandara is globally renowned for Kosa (Tussar) Silk .

9. Historically Bhandara has a unique weaving style. A section of artisans in this area is called weaver or bunker (weaving community in these areas). Therefore, Bhandara have a distinction of providing a special artistic name and fame to the creativity involved in the process of weaving Karvathh kati Sarees. The cultural ethos of the region are well incorporated in the weaving of textile products. The impact of art of any culture can be seen on the products manufactured in the region. The designs developed and incorporated on the products are appealing and astonishing in nature. These craftsmanship and art have been reportedly inherited from generation to generation.

10. The Satavahanas were the first to establish the supreme power in Maharashtra region. Contemporary to them were Kshatrapas and Pauni evidence show that they had their rule over major part of Vidarbha including the district. (i.e. Bhandara)

The history of Bhandara is practically blank, between the Twelfth and Sixteenth centuries (AD), as during this period the old Rajput dynasties whose existence is known from inscriptions and from the ruins of their temples, disappeared and were probably supplanted by Petty Gond chiefs, who left no record or other monument.

Pauni is the ancient historical place of Bhandhara district, with a fort built during the period of Marathas. (Pauni derived from the name of king "Pavan") is situated on the bank of river Wainganga known as South Ganga. It is a center of market and trade for the surrounding smaller villages and connects the smaller villages to cities like Nagpur, Chandrapur, Bhandara and Gondhia. In ancient times, Pauni was famous for the handloom textile industry. King Pawan ruled this town years ago. According to the folklore, the weavers are basically from Betul (now in MP). The king of Betul had sent some of the Weavers to teach the art of weaving to Pauni weavers. The weavers weaved clothes for the royal family members of the Pawan kingdom, in the ancient times.

The first historical trace with respect to the existence of handloom weaving in shape of the excellent cotton handloom fabrics and its trade from Pauni, during the rule of Chand Kings, in the eighteenth century (1732 A.D) is noted in the history of the

Bhandara district Gazette, published by the Gazetteers Department, Government of Maharashtra.

Later Mr Lawrence in his settlement report (1867) describing the extension of Pauni and the rise of trade (cotton handloom fabrics) states that it was for this reason that Chimna Bhonsla wanted to strengthen the boundaries of Pauni from Pindaris. Thrice the Pindaries, attracted by the fame of Pauni, swarmed to its plunder. (Pindhari – a ruthless cruel robber).

During the period 1891, the most popular Handloom products of Bhandara were the Cotton fabrics with silk border, Tumsar - ordinary country cloth, Bhagri -Khadi, Beni Carpets & Bedding- sheets, which were mainly weaved by Mahars (80000 in number), and supported by Chhippas, for Dyeing & Printing (Value addition), which later declined to 40000 by the year 1901. With the consumers resorting to the mill cloth the cotton handloom industry declined and in 1961, there 5253 Cotton handlooms & 161 Non Cotton handlooms in Bhandara district, as per the Census reports.

During 1871- 1881 there was 1500 silk population, in the town of Pauni who also worked on Tussar. The art spread to places namely Bhandara, Andhalgaon, Mohadi and by the year 1901, there 4000 persons (in 950 Houses) associated with the industry.

At Bhandara the Uparna or shoulder cloth and Loin cloth were woven, at Mohadi, Women's sarees or body clothes and cholis or breast -cloths were woven. Pauni produced men's clothes fringed with green silk and that the Pauni clothes were considered to be the best in the district and cheaper. Umred (now in Nagpur district) produced quality silk fabrics and were costly.

Development Corporation Vidharbha Limited (DCVL) in the 1970-1975, took up entrepreneurship development programmes and trained the weavers of the district in Tussar reeling, weaving activities.

11. Important products manufactured in Bhandara districts are silk fabrics, dress materials and saree, stoles, Shirting Cloth, dupatta etc. The diversified products like Stoles, are also produced in the region. The detailed list of Bhandara silk products can be seen in **Annexure 1**.

12. The weaving of Tussar Silk Fabric done in the region of Bhandara district. Major production localities are Mohadi, Andhalgaon, Umred & Pauni and other adjoining localities. The detailed of geographical area and maps can be seen in **Annexure2**.

13. For maintaining quality the testing facilities have been created by Central Silk Board. The efforts are continued to maintain and improve the quality standards followed for procurement of silk yarn and weaving of fabrics, uses of latest designs and colour combinations of trade and industry.

14. **Raw materials used:** The raw materials used in the Bhandara include Tussar silk, matka silk. The Tussar yarns mainly Bhandara Tussar, Ghicha (fine and champa), Katia, Korean Tussar are used.

15. **Method of production :**

The production of Tussar silk fabrics at Bhandara is done in three identified stages.

Stage I : Purchase of Cocoons, Processing of Cocoons, Spinning of Silk yarn

Stage II : Pre-weaving Activities

Stage III : Weaving & Processing of silk fabrics

Stage - I:- The raw materials used in this cluster are Korean Tussar silk, Local Tussar silk, Matka Silk, and Mulberry silk, and chinese silk. The raw materials like synthetic staple, viscose, cotton are also being used by the weavers.

Processing of Cocoons, Spinning of silk yarn: Cocoons are preserved and stored by traditional methods i.e. Sun-drying. Cocoons are spread floor in hot sun light for several days till the pupae are killed and cocoons are completely dried.

Preliminary sorting

Stifling : Stifling is the process of choking fresh cocoons and to prevent the emergence of moth in the form of butterfly by killing the pupae inside and also to ensure proper preservation of cocoons by eliminating the cocoon moisture and making the cocoons suitable for unwinding. Cocoons are preserved and stored by traditional methods i.e. Sun-drying.

Sun drying:

The cocoons are dried under moderate sunlight. The samples of the lot are tested for diseases and other impurities. Cocoons for boiling process are sorted on the basis of built, colour, size, compactness, weight etc. This restricts the causes of fungus attack and enhances the reeling efficiency.

Cocoons are spread on floor in heated sun light for several days till the pupae are killed and cocoons are completely dried. It is simple, economical & requires no initial investment. It requires labour, space and prolonged exposure to sunlight. Sun drying is necessary after stifling for proper preservation of cocoons.

Tussar Reeling:-

The process of extraction of Tussar silk yarn from the cocoon is termed as Reeling. Firstly the cocoons are sorted and selected, there after are wetted lightly with water and then these cocoons (100 to 125 no.) are tied in a cloth and the lot is placed on a highly raised platform in a manual boiler. Sodium Hydroxide is added to the water in the boiler and the same is boiled through firewood. The cocoons which are placed on raised platform partitioned with grass material are exposed to the water vapor for a period of two hours. This softens the cocoons and the pupae inside if alive dies and gets hard. The cocoons are taken out and the reeling of the Tussar Yarn begins, by coupling/multiplying the five filaments coming out from the five different cocoons. The process is done on the reeling machines and the yarn is rolled onto the bobbin. At the end of the reeling waste of cocoons, cut yarn and the residues remain and these are also spun in different yarns.

Stage - II:- Pre Weaving Process:- The main activities in the pre weaving stage are Preparation of Warp beam & Weft pirns.

Weft Pirns: - The reeled yarn on Bobbins is taken on to the Charka and from Charkha the same yarn is again rolled onto the Pirn which is used as the weft yarn for weaving the products. This process is done to ensure the evenness of the yarn. Three Separate pirns are prepared, two for the side borders and one for the body. The body pirn is of the Tussar Silk, while the border pirn is of Dyed Cotton yarns.

Sectional warping:- The sized yarn of predetermined length is wound on warpers bobbin and mounted on warpers creel. The number of warping bobbins depends on the number of ends per section. Later the threads are collected and passed through leasing dent and condensing dent making a section to be wound on weavers beam. After a

required length of the section is wound, a number of such sections are wound on the beam depending on the total number of ends required in the width of fabric to be produced.

Thereafter drawing and drafting through healds and reed is done. The drafted beam is then taken on the handloom for weaving. The entire process in weaving such as shading, picking, beating, taking up etc. are done manually by the weavers. The warp length varies from product to product, but generally, a 40 meter warp is prepared by rotating the drum. Generally at Bhandara, the sectional warping is practiced by very few weavers. Most of the weavers are purchasing the ready made Warps of 40 meters from Champa & Bhandara.

Loom Setting:- The warp beam is set on to the loom and the warp beam yarns are joined one by one with the help of the balance yarns left out of the last weave, from the reed.

The Procurement of raw material

The following raw material is required:

Silk Yarn: The Tussar Silk yarn is used for this product. The warp Yarns are sourced from Bhandara / Champa, whereas for the weft yarns the local variety of Tussar is used. The Tussar Yarn, Ghicha, Katia and the Pendekal yarn used in the weft is reeled locally. The warp yarns are basically single ply yarn of 35-38 Deniers, whereas the weft yarns are either 2ply or 3ply of 66-72 Deniers. Most of the weavers, traders, master weavers, primary co-operative societies, and also the weavers source the ready made warp from Champa/Bhandara, which is readily set on to the looms by joining the warp yarns with the left out yarns on the loom. The other material used in the border is the dyed mercerised Cotton yarn of 2/80s count. These are directly sourced by every one from the traders of Nagpur.

Colours: The modern chemical dyes [colours] are purchased from Mumbai by the dyers directly. There is only one commercial dye house at Andhalgaon performing the fabric dyeing activities for dress material and for shirting, apart from calendaring the sarees. The acid dyes are in use for dyeing of the Tussar Silk fabrics.

Stage- III:- Technique of Karvath Weaving: The crafts were mostly hereditary. The qualities required of a true artisan were apprenticeship, devotion to duty and co-operative efforts. The knowledge is imparted from father to son and the business too

passed from father to son. The process of weaving may be divided into few separate but interdependent stages such as

- (1) Sorting of silk,
- (2) Winding of weft on cones and joining warp, and,
- (3) Actual weaving and designing.

Sorting of Silk:

Silk used for weft is sourced locally and that of warp is procured from Bhandara / Champa. For the purpose of weaving two types of silk is required the Warp [taana] and Weft [baana]. In local language warp is known as taana and weft is known as baana and the process of weaving is a combination of taana and baana. Warp [taana] acts as foundation for further processes of weaving and designing.

On sorting of silk thread, taana thread is given for winding. Winding is done on small instrument which in local language called as RAITA which is prepared from bamboo splits just like a conical reel. Now new machine is developed for winding of silk thread which is called as reeling machine. With the help of this machine silk winding is done on small cones. Then these reels/cones are used for warping of silk. Manually warping is done on a warping frame which is known as RATTI in local language. This frame has 25 pegs having small cross sticks. The pegs are fixed one below another. This frame is of 8 feet length and 6 feet in height. Now this frame is generally used for making only warps for border. Now warp machine is used for this purpose. This machine comprises an octagonal metal cylindrical frame that revolves vertically on the machine axis and a metallic rack on which the thread rolls are kept.

The threads from these rolls pass through hooks fixed on the rack on to a double metallic frame that moves up and down with the motion of the machine and are wound on the cylinder in a crisscross manner that facilitates the detection of breach in the thread/ If one exists anywhere this process starts from one end of the cylinder and goes on till the whole of the cylinder is covered with the thread. Using this machine the weaver converts the raw silk into single [known as Ektari] or double fold [known as dountari] as per requirement. Once this process is over it is converted in bundles. Weft has no process. It is only sorted from warp thread.

Winding: The yarn is normally received by the weavers in the form of bundles. Both in the case of warp and weft, Weft is freed and taken directly on warp beam. Its lese is freed. Lese of previous warp is also tightened with help of lese rods. Then new warp is joined to previous warp with gum. Weft of body, border, and selvage are all separate.

Though they are separate they are joined in one stage and there is a combination of body, border, and selvage. Then warp of all these are spread through rest beam to cloth beam. Now warp is ready for weaving. Weft thread is wined on cones called RAITA with help of three wooden rods fixed in stones as shown in picture. Now in new era a machine is prepared for winding of weft. In this machine motor is used in place of wooden rods, stones and raita. And weft is wined on cones. Then this silk thread is again taken/ wined on bobbins with help of charka as shown in the picture pasted here. This work is generally done by ladies or elderly gents.



Weaving

Loom

The loom is simple and consists of a traditional wooden frame with some minor accessories such as cloth beam, slay, reed cap, reed rest beam, warping beam, lease rods, paddles. In some looms dobby is used for the purpose of border design. Cloth beam or in local language it is known as THOOL enables the weavers when the work is in progress, the cloth is slowly rolled on this beam. The reed cap or HATHIA is filed to slay which is used for beating. Comb is fitted in between slay and reed cap. Through this comb silk threads of warp are woven. In these days steel comb is generally used. With the help of rest beam warp is spread on loom. While warp is rolled on warp beam. Harness cords are used for warp threads for designing border and butta. Dobby is used in making border design of Karvath saree. Tillies are used for designing pallo and for making buttas on body of the cloth.



Traddles are the footboards [paddles] by which the weaver raises or lowers the threads of the warp which is called as shade. The threads are usually numbered and are connected by cords with the upper portion of the needles. The needles are two frames, hanging from the roof across the warp and composed in each case of two rods, one above and one below, connected by loops of threads. The needles guide the upper and lower threads of the warp. As the threads are moved, the needles move their respective warp threads, up and down, while between each movement shuttle goes across the warp. The crossbar is fixed to the ground on two pegs and used for raising the warp.

The warping beam is a wooden beam on which the warp is fastened. A stout card is fastened to the middle of this beam.

There are two types of looms.

- a. **Pit Loom:** These are the ancestral type of loom. Since forefathers of the weavers these looms are used. This loom is installed on pit with wooden rods about 3 feet deep. The waver has to sit on wall of pit, with his legs inside. The looms are permanently installed in these pits and cannot be moved from their place. Weaving done on this loom is done in two types i.e. fly shuttle weaving, or throw shuttle weaving. Weaver opinion is about the loom is good. They say that as these looms are installed in pit they have good foundation and sitting on wall is comfortable. Hence till now people are using these types of looms. Karvath kati Sarees are weaved on the pit looms.
- b. **Frame Looms:** These looms are the newer ones, with lightweight metal frames that constitute the main body of steel. They are introduced hardly seven to eight years ago. These looms have given superior performance, but still these looms are preferred by few weavers. Frame is preferred to weave Dress material and the shirting for high productivity.

Designing or Interlocking : The designs seem to have been drawn from the flora and fauna found around Vidharbha region and also from the Ramtek temple motifs. The

motifs such as flowers, animals, birds and mythological figures are also incorporated in the body of the fabric. The Bhandara weavers are most famous for their 'Karvath (Jaws of Hexa Blade) pattern.

Karvath weaving is three shuttle weaving:

Throw shuttle weaving: Throw shuttle weaving using three shuttles is practised. In this type one shuttle is used for body while two shuttles are used for border at both the sides. Shuttle boxes are not used as shuttle is not flied. In this process thread of border is interlocked with thread of body.

Borders:- The designing of border is done with the help of doobby. The general motives used are floral and temple motifs, but of very small size in two to three rows separated with clearly distinguishable Partition lines of dominant colour yarns. Actual weaving of sari is of 6.5 metres and pallu is of 0.75 to 1 metre and a blouse piece of 0.80 - 0.85 metres.

Karvath Pattern:- The Karvath pattern, i.e. the saw of hexagonal blade pattern is seen adjacent to the borders, towards the body on both the sides. The mechanism of obtaining this pattern is based on the movement of the border weft shuttle, from one body warp yarn by interlocking with the body weft yarns. In the next throw, he does the same through the two body warp yarns and in the same way, increases the number say till 20 and then in the next throws, decreases the number of warp yarns for interlocks, till one. This throwing pattern of the weft shuttle creates one single pattern and the same is repeated again, for attaining the pattern through out the saree. The pattern size varies from weaver to weaver. Some make small pattern, while the others weave medium to big sizes. A big design can be obtained by interlocking of more number of the body warp yarns with the border weft moving bobbins. Generally a medium size pattern is obtained by interlocking of 20 body warp yarns with the body weft yarns.



Pallu:- Weaving of pallu in both the sides of the sari is done with interlocking threads. For designing of pallu jacquard or any other machine is not used. It is totally manual working. Three types of Pallus are popular, namely the Jala pallu with very heavy hand work, followed by the Devdi with medium level of Handwork and finally the Tekri which has the least handwork and minimal designs. The Jala Pallu, which is very – very complex, which needs the handling of 6-8 throw shuttles for different colours and designs. The design is spread all over the Pallu and has an elegant look, which can be weaved only by the very highly skilled and artistic weavers having good imagination. The Devdi Pallu sarees have some what moderate handwork, with mainly temple motifs. In this type of Pallu, some of the motifs are woven while others are by needle work. In the Tekri Pallu sarees the traditional floral and geometric motifs are embedded in four to five vertical columns. Jala Pallu sarees are very costly and the Devdi Pallu sarees are the cheapest ones.

Body: - The body of the Karvath Kati saree is mostly plain. Some weavers carry out some small buta work with hand needle.

Once a sari is completed, it is taken off from the loom and sent for cutting. The detail of the Geographical area of production and map is enclosed in **Annexure-4**

Dyeing, Finishing & Printing:- This process is carried out only for few fabrics, as most of the sarees, fabrics are sold in the natural Tussar colour. However, some of the fabrics, namely Dress Material, Shirting are sent to Dyeing unit for dyeing.

Similarly the value addition exercise for some of the Tussar sarees is carried out by dyeing and printing. Value addition at the fabric stage is one of the unique aspects of

this cluster. Most of the high end products are sent to Bagru in Rajasthan and Mallickpara in West Bengal for the Dyeing & Printing.

For carrying out dyeing activities, one dyeing unit exist at Vill: Andhalgaon, Tahsil: Mohadi. Two small scale printing units have established their domestic set up to carry out the printing activities mainly on the sarees and dress materials.

Dyeing:- The Tussar Dress material, shirting are basically dyed at the Andhalgaon Dyeing unit. Fabric from the loom is initially bleached with Hydrogen Peroxide, Caustic soda & Dichloromethane. Later it is washed in clean water. The dye solution is prepared in hot water and basically Acid dyes are used for colouring. The fabric is shifted into hand operated Jigger consisting of the dye solution, where it is thoroughly rotated followed by the acetic acid treatment. This is followed by washing with cold water to ensure the proper fixation of dye. After washing gum is added to the fabric and then the same is dried. After drying the same is slightly wetted with water, for softening and then the fabric is processed for finishing.

Finishing:

Finishing is a process carried out to the Dyed and as well as un-dyed natural Tussar fabrics. It is generally conducted by two techniques to improve the cover, feel, luster and look of the fabric. These are basically:-

- Kundi finish i.e. Beating with wooden hammer
- Calender finish: Machine finish

Kundi Finish: Kundi finish is a special and unparallel human skill found in the Bhandara region which is very much suited for the Tussar yarn. It is primarily done in all export varieties of Tussar fabrics manufactured for domestic and international market. This is an indigenous practice of finishing of Tussar silk fabrics. The Fabric is washed well in cold water and then it is treated into the finishing bath having the following recipe for 10 saree pieces.

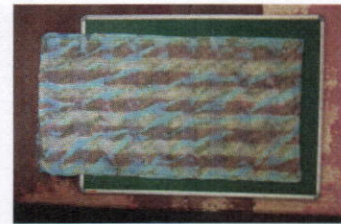
After treating the Tussar silk material in the above bath at room temperature it is dried, after which the silk is moistened by sprinkling and then quantity of cloth pieces about 10 numbers of sarees are folded in a packet form and wrapped in a thick cotton cloth. The bundle is then placed on a wooden block and vigorously beaten by two persons from two sides with the help of hammer for about 15-20 min. This is basically carried out to arrive evenness in the fabric.

Calender finish: This finish consists of above recipe after which the fabric is passed through the electric heated calendars at a slow speed. After this the fabric is folded

properly and packed. The main aim pursued in silk finishing is to obtain the properties, i.e. luster, handle drapability etc.

Printing: The blocks are produced by local artisans using their own designs. The dyes used for printing are acid, metal complex acid or direct dyes. The printing pastes are stored in special wooden containers. Printing is done on a heavy table. After printing, the fabrics are dried, steamed, and wrapped in unbleached cotton.

Direct Printing: For printing of Tussar by direct style, acid metal-complex, direct and reactive dyes are normally used.



Printing may be carried out by screen or block printing method. In case of block printing the thickener used is gum Arabic. The printed fabric is dried under mild conditions to retain a good printed mark and prevent the goods from marking off during subsequent process. Steaming is carried out in saturated steam for 45-120 min. depending on the steamer used. Washing is carried out under mild alkaline conditions with a standard detergent to prevent the re-adsorption of washed dye onto the fabric. The fabric is neutralized and dried at low temperature.

Ironing: Finally the finished product goes for ironing and packaging. The similar method is also followed for producing other silk varieties.

16. **Uniqueness of silk fabrics:** The uniqueness of Bhandara silk fabrics can be attributed to the following factors :-

- a. Quality and variety of the Kosa Silk:-
- b. The Pattern of Weaving
- c. The pattern & Size of the motifs used in Borders.

Raw Material Uniqueness: - For weaving the Karvath Kati Tussar saree, Korean Tussar is used in the warp and in the weft, the local variety, i.e. Bhandara Tussar silk is used. The local variety of Tussar is very popular for the following:-

- High Silk %
- Low Breakages
- Less Wastage
- Light Weight
- Superior Look
- Durability
- Original Golden colour
- Shine & Brightness: More the washes, more is the Shining & Brightness
- The original Bhandara Tussar Silk is Multi- Voltaire, whereas the others are multi Tri - Voltaire.

The above characteristics are due to the local geographic factor, namely the climatic conditions and also the high nutritious value of the leaves of the Ain trees on which the reeling of the cocoons takes place.

Saw Edge Motifs: - The Vidharbha region of Maharashtra is the originating place of Karvath Kati (saw-edged) saree so named after the border design which resembles saw teeth. The design resembling saw teeth is weaved on body part of the saree at both the sides adjacent to the border. Every Karvath kati design saree will have this pattern of design on both the sides.

Designs:- Most of the designs in the saree border are by virtue of the Dobby mechanism and the root origin of most of the designs are the sculptures seen at the famous Ramtek temple, which is near to this place. The uniqueness in designs are, firstly their nomenclature / description to each and every part of the design, the colour combinations, the size & shape of the designs. The design description of Panckha Design in the local vocabulary is as under:-

Doon(Border Black Line), Korna(Adjacent Yellow Line to Border Black line), Belkannath (Design), Korna (Adjacent Yellow Line), Panka kinar (main design), Korna (Adjacent Yellow Line), Bellannath (Design), Ornamentation in Black line, Korna (Adjacent Yellow Line, Half Bugudi (Design), Korna (Adjacent Yellow Line), Gul with one yellow & Black lines adjacent to each other. The local names of the different designs that are used in the doobby border are:-

- Rui Phool
- Karan Phool
- Dholak kinar
- Jali kinar
- Jai Phool

- Weet Phool
- Bel Kannat
- Thikri
- Devri
- Katari
- Lahari
- Mor
- Ambapatti

Process of Weaving:- Saw teeth design adjacent to the doobby border comes out of the excellent artistic weaving skills of weaver, in interlacing the border weft yarns with the body weft yarns, by penetrating the shuttles through a bunch of warp yarns in a decreasing trends. This is done on by using three throw shuttles, two for the borders, and one for the body, on pit looms.

a. This traditional product has not only helps in the economic development of the rural areas of the state by providing self-employment to the rural poor but also contributes immensely for the development of women and reducing gender inequality. Further, it is a cultural heritage of the country and bears generational legacy. Hence the protection of the product will help in many ways for the development of the rural artisans of the state.

17. Training to the weavers and quality maintenance: The Government of Maharashtra has set up its office in Bhandhara for facilitating the availability of basic seed and managing the production of Cocoons, in collaboration with the three premier organizations of the Central Silk Board, namely Basic Seed Multiplication & Training Centre, Regional Tussar Research station, Demonstration cum Technical service centre. Besides, the Weaver Service Centre also provides training to the weavers in improving and sharpening their craftsmanship. Over the period, the weavers are attracted from different cast and have undergone training in the training centre to carry out the traditional weaving art of the Bhandara Silk Fabrics and Saree. The Central Silk Board, Weavers Service Centre has maintained the quality parameters for silk yarn and fabrics. The testing facilities have been created by Central Silk Board. The efforts are continued

to maintain and improve the quality standards followed for procurement of silk yarn and weaving of fabrics, uses of latest designs and colour combinations of trade and industry.

18 In the process of production, the producers are also maintaining the authenticity of the product by not employing child labour either in the process of production or distribution of the products. Hence the stakeholders are fully practicing the concept of fair trade in the process. Likewise in the process of dyeing the dyers/manufacturers are also taking care of eliminating both health and environment aspects. Special care has been taken for dissolving the waste products and waste dyed water, so that there will be no environmental pollutions. The state government and the organisations like Textiles Committee are also empowering the stakeholders on the issue.

19 Further, with the growing demand for the product, the stakeholders are now facing the brunt of infringement. With the technological advancement many composite Mills & dyeing factories are producing polyester fabric giving special finish to generate the Tussar like glaze and appearance and selling it in the name of Bhandara Silk. As a result, the original producers are losing the market share and so also livelihood. In the given circumstances, it is thus apparent that the Bhandara Silk needs requisite legal protection and also qualifies for protection under the Geographical Indication (GI) Act, 1999.

20 The traditional hand- woven product of the country is national heritage and emotionally attached to the stakeholders associated with it. It also contributes immensely for the economic development of the country. The legal protection will make the stakeholders secure from infringement and provide ownership right.

21 At the same time, the protection will also make the consumers secure out of deceived products. In view of the above, GI registration of Bhandara Silk Fabrics is essential.

22. The Bhandhara cluster has wide range of products in the product profiles:

Bhandara Cluster - Tussar Products Profile							
Sr. No.	Product	Length	Width	Reed	Pick	Count of Yarn	
						Warp	Weft
1	Saree	6.5 mtrs	50'	72	66-72	35 D Korea Warp	50-70 D Local Variety Yarn
2	Shirting	20,30,35 mtrs	50'	72-80	70-80	35 D Korea Warp	Cotton - 1/100s, 1/80s
3	Shirting	20,30,35 mtrs	50'	72	50-55	35 D Korea Warp	Pedenkal Yarn - 60 D
4	Shirting	20,30,35 mtrs	50'	72	65-70	35 D Korea Warp	China Silk - Mulberry
5	Shirting	20,30,35 mtrs	50'	72	55-60	35 D Korea Warp	Moga
6	Shirting	20,30,35 mtrs	50'	72	30-35	35 D Korea Warp	Ghicha
7	Shirting	20,30,35 mtrs	50'	72	55-60	35 D Korea Warp	Tussar Silk
8	Punjabi Dress Materail	20,30,35 mtrs	50'	72-80	70-80	35 D Korea Warp	Cotton - 1/100s, 1/80s
9	Punjabi Dress Materail	20,30,35 mtrs	50'	72	50 -55	35 D Korea Warp	Pedenkal Yarn - 60 D
10	Punjabi Dress Materail	20,30,35 mtrs	50'	72	65-70	35 D Korea Warp	China Silk - Mulberry
11	Punjabi Dress Materail	20,30,35 mtrs	50'	72	55-60	35 D Korea Warp	Moga
12	Punjabi Dress Materail	20,30,35 mtrs	50'	72	30-35	35 D Korea Warp	Ghicha
13	Punjabi Dress Materail	20,30,35 mtrs	50'	72	55-60	35 D Korea Warp	Tussar Silk
14	Gents Dupatta	2.25 to 2.50 mtrs	24'	72	50-55	35 D Korea Warp	Cotton - 1/100s, 1/80s
15	Gents Dupatta	2.25 to 2.50 mtrs	24'	72	50-55	35 D Korea Warp	Pedenkal Yarn - 60 D
16	Gents Dupatta	2.25 to 2.50 mtrs	24'	72	50-55	35 D Korea Warp	China Silk - Mulberry
17	Gents Dupatta	2.25 to 2.50 mtrs	24'	72	50-55	35 D Korea Warp	Moga
18	Gents Dupatta	2.25 to 2.50 mtrs	24'	72	50-55	35 D Korea Warp	Ghicha
19	Gents Dupatta	2.25 to 2.50 mtrs	24'	72	50-55	35 D Korea Warp	Tussar Silk
20	Ladies Dupata	2.25 to 2.50 mtrs	30'	72	50-55	35 D Korea Warp	Cotton - 1/100s, 1/80s
21	Ladies Dupata	2.25 to 2.50 mtrs	30'	72	50-55	35 D Korea Warp	Pedenkal Yarn - 60 D
22	Ladies Dupata	2.25 to 2.50 mtrs	30'	72	50-55	35 D Korea Warp	China Silk - Mulberry
23	Ladies Dupata	2.25 to 2.50 mtrs	30'	72	50-55	35 D Korea Warp	Moga
24	Ladies Dupata	2.25 to 2.50 mtrs	30'	72	50-55	35 D Korea Warp	Ghicha
25	Ladies Dupata	2.25 to 2.50 mtrs	30'	72	50-55	35 D Korea Warp	Tussar Silk
26	Stoles	2.00 to 2-25 mtrs	24',30', 50'	72	45-50	36 D Korea Warp	Tussar Silk