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Government of India

भौगोलिक उपदर्शन पत्रिका

**GEOGRAPHICAL INDICATIONS JOURNAL**



बौद्धिक सम्पदा  
भारत  
INTELLECTUAL  
PROPERTY INDIA

भौगोलिक उपदर्शन पंजीकृति,  
बौद्धिक सम्पदा अधिकार भवन,  
जी.एस.टी. रोड, गिण्डी,  
चेन्नै - ६०० ०३२.

Geographical Indications Registry,  
Intellectual Property Rights Building,  
G.S.T. Road, Guindy, Chennai - 600 032.



**GOVERNMENT OF INDIA**  
**GEOGRAPHICAL INDICATIONS**  
**JOURNAL NO. 54**

**NOVEMBER 28, 2013 / AGRAHAYANA 07, SAKA 1935**

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## OFFICIAL NOTICES

**Sub:** Notice is given under Rule 41(1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002.

1. As per the requirement of Rule 41(1) it is informed that the issue of Journal 54 of the Geographical Indications Journal dated 28<sup>th</sup> November 2013 / Agrahayana 07<sup>th</sup>, Saka 1935 has been made available to the public from 28<sup>th</sup> November 2013.

## NEW G.I APPLICATION DETAILS

App.No.	Geographical Indications	Class	Goods
405	Makrana Marble	19	Natural Goods
406	Salem Mango	31	Horticulture
407	Hosur Rose	31	Agricultural
408	Payyanur Pavithra Mothiram	14	Handicraft
409	Kodali Karuppur Saree	24 & 25	Textile
410	Thammampatti Wood Carvings	20	Handicraft
411	Rajapalayam Lock	6	Manufactured
412	Chamba Painting	16	Handicraft
413	Kangra Paintings	16	Handicraft
414	Punjabi Jutti	25	Handicraft
415	Aipan	16	Handicraft
416	Lahaul & Spiti Wool Weaving	23	Handicraft
417	Lacquer Ware Furniture	20	Handicraft
418	Jhajjar Pottery	21	Handicraft
419	Tamta Copperware Craft	6	Handicraft
420	Rewari Jutti	25	Handicraft
421	Hoshiarpur Wood Inlay	20	Handicraft
422	Kandangi Sarees	24	Textile
423	Thanjavur Pith Works	20	Handicraft
424	Karupur Kalamkari Paintings	24	Handicraft
425	Thanjavur Cut Glass Work	20	Handicraft
426	Mahabalipuram Stone Sculpture	19	Handicraft
427	Nagercoil Temple Car	20	Handicraft
428	Kannyakumari Stone Carving	19	Handicraft

429	Arumbavur Wood Carving	20	Handicraft
430	Namakkal Makkal Stone Works	21	Handicraft
431	Kallakurichi Wood Carving	20	Handicraft
432	Kinnauri Kala Zeera	31	Agriculture
433	Bandar (Machilipatanam) Laddu	30	Food Stuff
434	Ratlami Sev	30	Food Stuff
435	Assam Karbi Anglong Ginger	30	Agriculture
436	Tripura Queen Pineapple	31	Agriculture
437	Memong Narang	31	Agriculture
438	Tezpur Litchi	31	Agriculture
439	Joha Rice of Assam	30	Agriculture
440	Sathebari Bell Metal Crafts	6	Handicraft
441	Karbi Textiles Products	24 & 25	Textile
442	Sital Pati Mats & Crafts of Goalpara	20	Handicraft
443	Larnai Clay Pottery	21	Handicraft
444	Bamboo Shang Trop	6	Handicraft
445	Stone Carving Craft	21	Handicraft
446	Kauna Reed Craft	21	Handicraft
447	Manipur Dolls and Toys Craft	21	Handicraft
448	Solapith Crafts of Birbhum District	16	Handicraft
449	Burdwan Natungram Wood Craft	21	Handicraft
450	Naga Angami Shawl	24	Textile
451	Naga Ao Shawl	24	Textile
452	Naga Sumi Shawl	24	Textile

**PUBLIC NOTICE**

No.GIR/CG/JNL/2010

Dated 26<sup>th</sup> February, 2010

**WHEREAS** Rule 38(2) of Geographical Indications of Goods (Registration and Protection) Rules, 2002 provides as follows:

**“The Registrar may after notification in the Journal put the published Geographical Indications Journal on the internet, website or any other electronic media.”**

**Now therefore**, with effect from 1<sup>st</sup> April, 2010, The Geographical Indications Journal will be Published and hosted in the IPO official website [www.ipindia.nic.in](http://www.ipindia.nic.in) free of charge. Accordingly, sale of Hard Copy and CD-ROM of GI Journal will be discontinued with effect from 1<sup>st</sup> April, 2010.

**Sd/-**

**(P. H. KURIAN)**

**Registrar of Geographical Indications**

Advertised under Rule 41 (1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 54 dated 28<sup>th</sup> November 2013

**G.I. APPLICATION NUMBER – 155**

Application Date: 09-02-2009

Application 155 & 156 made by, **The Glass Industrial Syndicate**, Badi Chapaiti, Firozabad - 205142, Uttar Pradesh, India Facilitated by Export Commissioner, Uttar Pradesh Government, Export Promotion Bureau, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow - 226010, Uttar Pradesh, India for Registration in Part A of the Register of **Firozabad Glass** are merged together to proceed as a single application as per the order of Registrar of Geographical Indications dated 18-08-2009 under Application No. 155 in respect of household or kitchen utensils and containers; un-worked or semi-worked glass (except glass used in buildings); Kitchen ware, Table ware, Chandeliers, Double walled Glass Refills; Glass Bangles; Beads; Tumblers and decorative items falling in Class – 21 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) **Name of the Applicant** : **The Glass Industrial Syndicate**
- B) **Addresses** : Badi Chapaiti, Firozabad – 205142, Uttar Pradesh, India  
Facilitated by Export Commissioner, Uttar Pradesh Government, Export Promotion Bureau, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow - 226010, Uttar Pradesh, India
- C) **Type of Goods** : **Class - 21** – Household or kitchen utensils and containers; un-worked or semi-work glass (except glass used in buildings); Kitchen ware, Table ware, Chandeliers, Double walled Glass Refills; Glass Bangles; Beads; Tumblers and decorative items.
- D) **Specification:**  
The product spectrum of Firozabad Glassware is very wide. The specification is followed as per the order for the glassware manufactured. However, the product spectrum can be segregated on the basis of techniques used, glass type and the product types. It can be divided into the following four classes on the basis of the technology applied in their respective classes:  
(a) Glass Bangles (Choori) craft;  
(b) Glass Beads Craft;  
(c) Products manufactured using mouth/lungs blowing technique; and  
(d) Products manufactured using machinery.

Soda ash and Silica are the main raw materials used for producing glass in which chemicals of known properties are mixed as raw material for achieving certain properties, like hardness, refractive index and colour, in glass. Float Glass is widely



used for making all kind of goods. The glass produced in Firozabad can be categorized into the following three classes based on the raw material used in glass:

- (a) Soda Lime Silica Glass (Soda Ash 33%, Silica Sand 66% and chemicals 1%) produced at around 1450 degree Celsius;
- (b) Borosilicate Glass (Boron 12%, Silica Sand 82% and Soda Ash 6%) produced at around 1600 degree Celsius; and
- (c) Lead Glass (Soft Glass) in which around 24% Lead (Pb) is mixed as a raw material. Most of the products are manufactured using Soda Lime Glass.

The products spectrum of Firozabad Glassware industry can be broadly divided into the following classes on the basis of the products line:

- (a) Bangles (Chooriware);
- (b) Kitchenware, like flask and containers; and
- (c) Tableware, like wine/beer glass and decorative items, like Christmas Tree.

The standard Glass Bangles come in four sizes with the following specification:

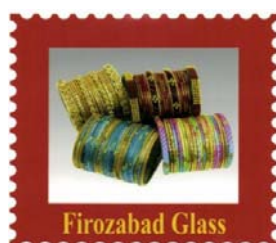
Size		Diameter in Inches	Inner Diameter in Centimetres	Circumference in Inches
S	2.4	2.250	5.7	7.06
M	2.6	2.375	6.0	7.46
L	2.8	2.5	6.5	7.85
XL	3.10	2.625	6.6	8.24

The ISO defines the standard for the different glassware made at Firozabad. The following table prescribes the ISO standards for the glassware:

Serial Number	ISO	Goods Quality Description
1	718:1990	Laboratory glassware—Thermal shock and thermal shock endurance
2	4790:1992	Glass-to-glass sealings—Determination of stresses
3	10345-1:1992	Determination of stress-optical coefficient Part 1: Tensile test
4	10345-2:1992	Determination of stress-optical coefficient Part 2: Bending test
5	7086:2000	Glass hollowware in contact with food
6	718:1990	Thermal shock and thermal shock endurance
7	1773:1997	Narrow-necked boiling flasks
8	24450:2005	Wide-necked boiling flasks

**E) Name of the Geographical Indication:**

**Firozabad Glass**



**F) Description of the Goods:**

Firozabad is the only place manufacturing glass bangles (Choori) and glassware manufactured using mouth blown technique in India. Firozabad has absolute monopoly in glass bangles and is World Glass Bangles Capital.

Glassware manufactured at Firozabad can be classified into the following categories:

- (a) The Bangles. It's manufacturing in itself unique from rest of the categories. Post manufacturing, decorating bangles is another craft applied on bangles before finally sending the products to the market. The colouring of bangles is done by either using coloured glass or applying colours to the top/upper crest of bangle. The bangle could be round, flat, oval or spiral on the basis of beating the loam in a particular fashion. It is said that a bangle passes through 54 expert hands of artisans before getting ready to be admired by ladies.
- (b) The glassware manufactured by using mouth blown technology is another unique technique of artisans based in Firozabad. The melted glass is taken on one edge/side of the hollow metal stick and from the other side it is lifted over the head and the other end of the stick is put in mouth to blow. This method is used to give shape to the Melted glass at the other end. Goods like double walled glass refills known as Glass Flasks and bulbs are made using this very dangerous technique which requires nothing but perfect craftsmanship.
- (c) There is a long spectrum of glassware manufactured by using machines with minimum human intervention. The product line includes bottles, cutlery, most of the kitchenware and tableware and automobile headlight covers.
- (d) The beads. The beads manufacturing can be divided into two parts. First part holds the manufacturing of hollow tubes. The second part is about making beads using the hollow glass tubes. The beads with a hole at the centre are to get tug with the articles to be decorated. There is another kind of beads which look like artificial diamond. The beads are used for decoration and embroidery.
- (e) The decorative items like chandeliers, Christmas Tree, animals' miniatures, statues of different kinds like of God & Goddess. The quality of glass, design and creativity of artisans in some total reflects the quality of the items prepared.

As per the latest data available till June 2008, the total turnover of Firozabad glassware is around Rs 800 Crore in which exports of Rs 62.2 Crore are included. Around one lakh workers are directly engaged in Firozabad glassware manufacturing and around two lakh workers are indirectly involve in glassware manufacturing. There are 421 registered glassware manufacturing units in Firozabad of which 47 units are successfully exporting glassware.

**G) Geographical Area of Production and Map as shown in page no.: 17**

Firozabad District, Uttar Pradesh. According to a report of the District Industry Centre Firozabad, *Kanch Udhog Ki Adhtan Report*, the glassware manufacturing activities are confined to in and around Firozabad town and a few other nearby places within the boundary of Firozabad district. Agra Road, Station Road, Coal siding, Ashafabagh, Makkanpur, Dholpura and Raja ka Taal are the epicentre of glassware manufacturing

in and around Firozabad town [27° 09' N, 78° 24']. Firozabad is located in north central India, in western Uttar Pradesh state, 40 km away from Agra and around 240 km away from Delhi, at the northern edge of the Deccan Plateau, at 27°09'N 78°24'E / 27.15, 78.4. The height above sea level is 164 meters (540 ft). The boundaries of district touch Etah district in north and Mainpuri and Etawah districts in the east. The Yamuna River makes its southern boundary. The ancient name of this town was Chandwar Nager. The name of Firozabad was given in the regime of Akbar by Firoz Shah Mansab Dar in 1566.

#### H) **Proof of Origin [Historical Records]:**

The Firozabad Glass industry is a cottage industry. A report generated by the District Industry Centre Firozabad says that glass bangles (Choori) making technique originated in Jasrana sub division of Firozabad (Firozabad district was formed in February 1989 carving out areas from Agra and Mainpuri districts) in the eighteenth century. The washer men of Jasrana use to mix dirty clothing with local soil (mud) and use to warm it overnight in containers put on fire. In the morning they use to find that there was a bright glass layer on cloths/container. This was gradually utilized for making joint-free glass bangles. In 1935 an artisan Rustam Ustad is said to have developed the craft of glass bangle making. The Chall Ki Bhatti (local fossil fuel based furnace) was used to make glass bangles. The artisans use to roll glass layer on wooden rods, which were cut into the shape of bangles (choori). After cooling it on the wooden rods it was taken off as joint-free bangle. Green colour joint-free bangles are considered as auspicious in weddings and therefore there is demand for this kind of bangles in marriages.

The historic evidences say that the glass was in use in India since ancient time. Hastinapur (Uttar Pradesh) site is the earliest from where glass in the form of glass bangles from 1100-800 B.C. reported in the review done by D. P. Agarwal and Manikant Shah for *Ancient Glass and India* written by S.N. Sen and Mamta Chaudhary, Published by Indian National Science Academy, 1985 . In 800 B.C., during the time of Yajur Veda, glass was one of the articles of which female ornaments were made. It is evident from the archaeological findings at Basti (Uttar Pradesh) that glassware found is about 2000 years old. Alan Macfarlane and Gerry Martin in a research article *Glass in India* (2002) write that during the Mughal period, glass articles, like chandeliers, tumbler, bowls and bottles for perfumes, became popular. Aa'in-e Akbari (1596-97) notes the glass manufacturing in Bihar and near Agra.

During ancient period, invaders brought many glass articles to India. Glass beads found at Ahicchatra (Uttar Pradesh) dates back between 300 B.C. and 1100 A.D. indicate Roman origin. Similarly, glassware found in the Mughal period show Persian influence. These glass articles when rejected were collected and melted in locally made furnace called *Bhainsa Bhatti*. This is how gradually glass industry started in Firozabad. The old traditional furnaces are still in use at Sasani near Aligarh (Uttar Pradesh) where joint-free glass bangles are made. These bangles were called *Kadechhal Ki Choori*. This type of bangles is considered very auspicious in marriage for the bride. Due to sole manufacturer of glass bangles, Firozabad is nick named Suhag Nagri. The glassware artisans are known as Shishgar.

The Glass Industry Syndicate is the oldest surviving glassware industry association based in Firozabad. It was established in January 1946. It is an association of 70 glass bangles manufacturer members. A Society renewal certificate of the association is enclosed herewith. U.P. Exports Promotion Bureau in a letter certifies the existence of registered 421 glassware units at Firozabad. It is supported by five certificates of Firozabad glassware industries which are existing for a long time.

#### I) **Method of Production:**

The first step for manufacturing any glassware is to produce glass. The glass is produced either by melting the glass itself (which constitutes a major part of the raw material as at least half of the production goes as scrap) or putting raw material Soda Ash and Silica Sand (Silica Oxide) in the Regenerative Furnace. The decision to mix a few chemicals in the raw material depends upon the required physical qualities in the glass produced.

The process of bangles manufacturing is entirely different and requires a lot of human skill. It is said that a glass bangles passes through 54 artisans expert hands.

The bangle making can be divided into three main parts:

- i. Bangles manufacturing in which bangles with two angular open ends are manufactured;
- ii. Aligning (Sidhai) the bangle open angular ends, joining (Judai), grooving the designs on the upper side of the bangles and baking the bangles in muffle furnace (Pakki Bhatti) to make them smooth and bright; and
- iii. Decorating the bangles by jari, ceramic work or silver or golden colouring in the grooves.

The colouring of bangles is done by either using coloured glass or applying colours to the top/upper crest of bangle. There are different methods for using colour in the glass. A colour layer (Batti) is sandwiched between two transparent glass layers at the time of making *Gulli*. For making a *gulli* first *ghundi* is made from a *loam* (Melted glass taken on an edge of a stick from the furnace). Melted glass taken from the furnace as unrolled/spread upon a flat metal sheet and then it is re-rolled upon an edge/side of a stick. Then it is given a shape by pressing it according to give shape to the bangle. The bangle could be round, flat, oval or spiral on the basis of beating the loam in a particular fashion. The colour layer may be sandwiched between two transparent glass layers or may be put at bottom or top. The placing of colour gives different impression to the final glass.

The final shaped Melted glass put on an edge of a stick is called *Gulli*. The *gulli* is put into another furnace in which melted glass wire from the *gulli* is thrown to the rotating round shape rod (*Baelan*).

The radius of the rod decides the radius of the bangles manufactured. Once a wire from *gulli* gets rolled on the rotating rod (*Baelan*), it keeps rolling on the rod just like glass wire getting rolled on the rod creating a spiral shape ring of glass. A rod full with the rolled glass thread is known as *Muttha*. Two artisans sit on the opposite sides of the furnace. At one side the first artisan, known as *Tarkash*, puts the *gulli* inside the hole of the furnace and does the process of getting struck glass wire from *gulli* to the rotating rod (*Baelan*). Before the first *gulli* exhausts, the next *gulli* is attached to the

first *gulli* to keep the wire getting rolled on the rod (*Baelan*) without a break. This keeps the continuity of the wire on a *baelan*. The second artisan sits with a stick in his hand to make sure that only one layer of the glass wire gets rolled on the rod at a place. Once the desired length of spiral ring (*Muttha*) gets ready, it is taken off and let it get cooled. Such spiral rings (*Mutthas*) are put in a place and then the *Muttha* is cut down into rings with a cut (two open ends at an angular difference) by a diamond cutter. Then the rings are collected, counted and coil of the rings is made by putting a thread into the centre side of the rings to form a *Tora*. The open angular ends of each bangle are aligned (*Sadhai*) in the same direction and joined (*Jurai*) by warming the open end portion on a burner. This makes a bangle with a joint. Then if grooves are required to be made, it is done. The grooving on the upper crest of the bangles is done by exposing the upper crest of the bangle to the design dye attached to the circumference of the rotator wheel.

The artisan keeps rotating the bangle to get grooves on the entire bangle. The bangles are then baked into the recuperative furnace (*Pakai Bhatti*). This smoothens the sharp edges of the grooves carved on the upper crest of the bangles and makes the glass bright. This is the process of bangles manufacturing. There is another part of embroidery/decoration on the bangles for making them more attractive.

The glassware manufacturing by mouth blown technique is explained here as an example for double walled glass refill (flask) without any limitation for the other glassware. Melted glass (*loam*) is taken from the regenerative furnace at an end of a hollow metal stick/rod. The loam is blown from mouth by raising the *loam* above face. It is blown keeping the desired size of the flask in mind. The blowing process creates cavity inside the *loam*. Once the desired size is achieved, it is put inside the dye to give it a shape. The dye provides the outer surface of the flask and after giving the shape the dye is taken-off. The joint between the stick/rod and the blown glass is cut-off.

A small *loam* is placed on the open end created by cutting-off connection between the stick/rod of the shaped glass and the semi-finished vessel. The semi-finished vessel is placed on a platform and it is holed softly and a dye is pressed upon the *loam* placed on the open end of the semi-finished flask. This process makes the inner wall of the flask and the desired double walled flask structure gets ready.

Now for creating vacuum between the two walls of the flask, a tube is added at the bottom side of the flask. All this takes place between temperature range between 1400 degree Celsius and 1200 degree Celsius. Then the flask is put upon the conveyer belt of the temperature chamber (*Layer*) in which its temperature is gradually brought to the normal temperature. The temperature control chamber is a long chamber in which the glassware moves on a covered conveyer belt and gradual decline in the temperature is set inside it by the means like thermostat. The proportion of temperature and speed of the conveyer belt is fixed inside the chamber depending upon the desired physical and chemical properties of the glassware.

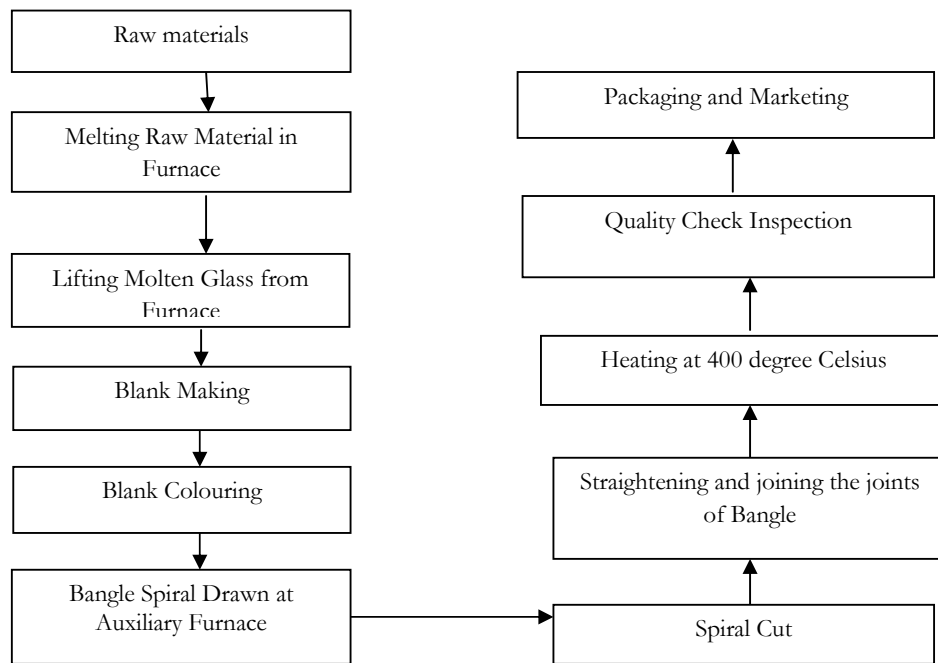
The controlled gradual decrease in glassware temperature inside the temperature control chamber ensures that the warm glassware does not break while cooling down to the normal temperature. At the other end of the *Layer* the flasks are collected. The cracked, broken or deformed pieces are thrown in sink and the rest are collected for

the next processing. Silver Nitrite is poured into the flask through the tube earlier added and then the flasks are placed upon the rotating rods. This keeps rotating the flask and thus the inner walls (walls facing each-other) get silver coated.

The flasks are checked after this process. They are hanged inside an oven to get them dry. Then vacuum is created between the two walls of the flask and then the tube at the bottom of the outer surface is sealed. The flasks are tested for keeping liquid, like water, tea, milk, in a desired temperature range. The cleared flasks after the testing are send for packaging.

The other types of goods are manufactured by using machines with minimum human intervention. Generally glassware like bottles and drinking glass vessel are manufactured by this process. The Melted glass (Loam) taken from the regenerative furnace is pressed and put inside the dye to give it a shape. Then it is placed inside a chamber (Layer) to cool it down to the normal temperature.

The flow chart of the Glass Bangles manufacturing is as follows:



The Beads manufacturing can be divided into two parts. First part holds the manufacturing of hollow tubes measuring around two feet. Melted glass is taken from the Pot Furnace and is spread on a flat sheet. It is curled up to be placed at the mouth of the hollow pipe which is connected to the dye. The glass passes through the dye with compressed air. At the bottom of the dye there is an outlet from which the glass comes out in the shape of a hollow pipe. It is kept running for almost 20-30 meters before cutting it. The collected hollow tubes are then screened for the desired radius. The selected lot is weighted before making their bundles. Both hand cutters and automatic cutters are used for cutting the hollow tubes into small pieces of the desired length.

The pieces are then mixed with carbon such that carbon gets filled inside the hollow space (pore) in between the circumference. It is then put into an input chamber which passes the cut pieces to a hollow revolving hot metal pipe. In this pipe the pored pieces of hollow glass tube keep revolve with the pipe. This makes the sharp edges of the hollow glass tube pieces smooth and they get round shape by the time of coming out of the pipe. The carbon inside the hollow glass tube pieces helps in remaining the pore open in the process of rounding the sharp edges. The collected hollow glass tube pieces takes the shapes of beads. They are now washed to remove the carbon from the pore. The wet beads are passed through a hot chamber to make them dry. This makes the beads ready for packing.

There is another kind of beads which look like artificial diamond. The manufacturing process is simple for it. Transparent glass solid rods are placed inside a hot chamber where the temperature is enough to melt the placed rods to the desired extent of securing impression of the dye on it. The melted rods are passed through a dye which gives a shape and impression up on the melted rod. The output is a long strip with dye impression. The output material is placed in a smooth crusher who crushes the waste material around the beads and the output is the final beads.

Articles like statues of God and Goddess are also manufactured using dyes and mouth blown technique.

The technological development saw introduction and use of Japanese Pot, Monkey Pot and now Regenerative Tank Furnace respectively. The use of fossil fuel has seen a low since the introduction of natural gas as fuel. Now natural gas burners are in use in Regenerative furnaces. The methods explained above are examples of different categories of glass goods manufacturing and do not represent method of manufacturing of entire range of glass goods manufactured at Firozabad.

#### **J) Uniqueness:**

The following are the unique features of Firozabad Glass Industry:

- Generally an artisan works on a particular process of a specific product manufacturing and masters the technique in long run by continuous practice of the process.
- A bangle as a final product passes through 54 expert hands before becoming a finished product.
- The technique of taking out melted glass on a hollow metal stick side and blowing it by mouth using mouth/lungs blowing technique needs very high quality skills.
- The entire manufacturing process for any glass goods takes place at a very high temperature ranging above 1000 degree Celsius and thus all is done swiftly among the melee of others before letting deterioration in the temperature of the glass to the point below which it becomes useless for giving a shape; therefore Factory floor management is another unique feature.
- The craftsmanship of the product line is so unique that even dye for giving a particular shape to the glass is made in Firozabad only. There are industries at Firozabad which have earned high integrity and reputation for particular segments of glassware and they deal only in that segment.
- The special characteristics of Firozabad Glass are invisible and intangible in nature as neither human skills nor the goodwill earned by it can be seen or measured.

Only the outcome of the very sophisticated and equally risky human skills learned purely in the real life is tangible in nature.

- The centuries old goodwill and reputation earned by Firozabad Glass makes the major part of its special characteristics.
- Firozabad is the biggest producer of Glass Bangles all over the world. It is the Glass Bangles Capital of the World.

**K) Inspection Body:**

By an Office Memo of Export Promotion Bureau, Uttar Pradesh, an Inspection Body has been formed for the Firozabad Glass Work for securing the Geographical Indication Registration. The following shall be the members of the Inspection Body:

Technical Member nominated by the Centre for Development of Glass Industries (CGCRI), Firozabad; Two local National/State Award winner expert craftsmen who would work in rotation of seniority for a year; and General Manager, District Industry Centre, Firozabad who shall work as a Convener.

The Inspection Body shall work under the coordination of Umbrella Organization for which Government Order 1273/18-4-2012-37 (Mis)/06 has been issued on July 2, 2012. The Export Promotion Bureau, U.P, shall be the Nodal Agency in this respect.

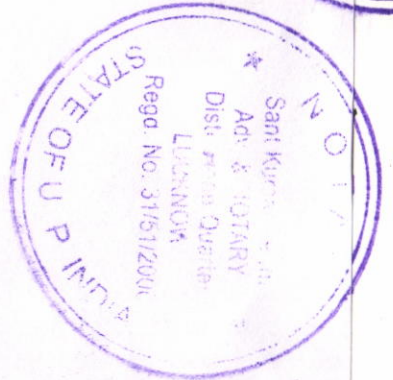
**L) Other:**

The Firozabad glassware spectrum is as lengthy and wide as the customers' base. Therefore glassware for all kind of customers are manufactured and hence quality of the goods differs product to product.

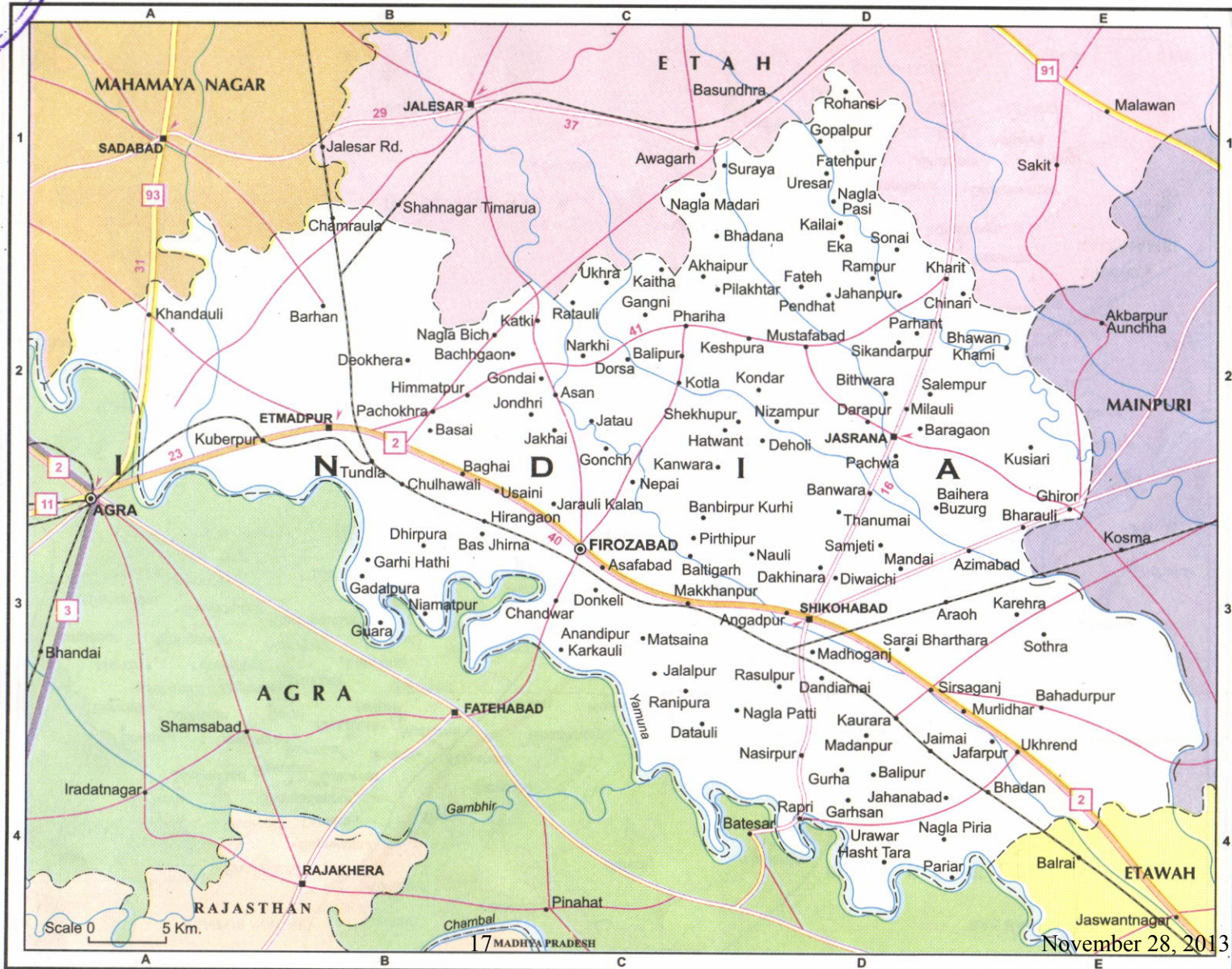
In testing the quality of the production, it should be free from the small sees, bubbles and minor defects which can be controlled by proper melting of glass. The durability of the glass is mainly dependent upon the composition of the batch and amount of seed & bubbles retained in the bangles.

As per the Hon'ble Supreme Court Order natural gas is used as a fuel in place of conventional fossil fuels. For the safety and health measures the related laws are complied with and welfare benefits are provided under the concerned Government schemes. The standard height of the Glass melting pot Furnace chimney height is 60 feet for pollution control; the industries are increasingly taking their chimneys to the standard height. The industry members are installing proper instrument to achieve minimal pollution.





**ATTESTED**  
S.K. VERMA  
Notary Public  
Lucknow, U.P., India  
Regd. No. 51512000



Advertised under Rule 41 (1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 54 dated 28<sup>th</sup> November 2013

**G.I. APPLICATION NUMBER – 157**

Application Date: 09-02-2009

Application 157 & 158 made by, **The Attar and Perfumers Association**, Maya Bhawan, Moh. Holi, Kannauj – 209725, Uttar Pradesh, India Facilitated by Export Commissioner, Uttar Pradesh Government, Export Promotion Bureau, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow - 226010, Uttar Pradesh, India for Registration in Part A of the Register of **Kannauj Perfume** are merged together to proceed as a single application as per the order of Registrar of Geographical Indications dated 14-10-2009 under Application No. 157 in respect of Perfumery (attar) and Essential Oils falling in Class – 3 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) **Name of the Applicant** : **The Attar and Perfumers Association**
- B) **Address** : **The Attar and Perfumers Association,**  
Maya Bhawan, Moh. Holi, Kannauj – 209725,  
Uttar Pradesh, India

Facilitated by Export Commissioner, Uttar Pradesh Government, Export Promotion Bureau, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow – 226010, Uttar Pradesh, India.

- C) **Type Of Goods** : **Class 3:** Perfumery (attar) and Essential Oils

D) **Specification:**

The quality of attar chiefly depends on the following factors:

- The quality of flowers (raw material);
- The time duration between the plucking and distillation of flowers; and
- The base material.

The quality of attar depends upon its concentration level of flowers/herbs in water, higher the concentration, higher the quality.

There is an international (ISO) standard [3518:2002] for sandalwood oil (ex Santalum album) which stipulates a minimum free alcohols (santalol) content of 90 percent (m/m) and the same is used for accessing the quality of the sandalwood base in fragrances.

As base and blending material for the fragrances, cheaper base materials like the lower end synthetic base material like liquid paraffin and Di-Octyl Phthalate (DOP) are also used. ISO 4656:2012 can be used for testing the quality of the other base materials by determining the oil absorption number (OAN) and oil absorption number of compressed sample (COAN).

**E) Name of the Geographical Indication:**

**KANNAUJ PERFUME**



**F) Description of Goods:**

Attar is a Persian/Arabic word meaning fragrance, scent or essence. When the fragrance of flowers, herbs and spices are collected by hydro-distillation on a base material, like sandalwood oil, the attar is made.

Essential oils are volatile and liquid aroma compounds from natural sources, usually plants. Essential oils are not oils in a strict sense, but like oils have characteristics of poor solubility in water. Essential oils often have an odour and are therefore used in food flavouring and perfumery. Essential oils are usually prepared by fragrance extraction techniques such as distillation (including steam distillation), cold pressing, or extraction (maceration). The distillation technique is used in Kannauj for making essential oils.

When the base material is not used essential oil is obtained after hydro-distillation. The leftover liquid or hydrosol after hydro-distillation of roses in the Deg while preparing rose oil is known as Rose Water.

Kannauj perfume industry makes fragrances (attars), essential oils, incense sticks, *dhoop* sticks, *hawan* material, *gulkand* (sweetmeat made of rose petals and sugar), Rose water and scent sprays. *Kannauj is known as perfume capital of India.*

Sandalwood oil due to its chemical properties is the best base for attar. In the course of distillation original perfume of sandal becomes thin as it absorbs the fragrance of flowers. There are distillation units to extract oil from sandalwood. The sandalwood comes from the South-Western parts of India, i.e. Karnataka and Kerala.

The farmers of districts around Kannauj district like in Aligarh, Etah, Farrukhabad and Mainpuri grow flowers and supply their crops to the Kannauj attar industry. The distillation units of fragile flowers have been installed in the interiors where the flowers are grown to distil them as soon as they are pluck. The raw material (flowers) comes from different places like Rose comes from Hathras and Aligarh in Uttar Pradesh and Palanpur in Himachal Pradesh, Khus from Bharatpur (Rajasthan), Chameli comes from Chandoli in Jaunpur district, Raat Rani comes from Viaywara district (Andhra Pradesh), Kewra comes from the costal areas of Burahanpur, Ganjam in Orissa and Saffron from Jammu & Kashmir. Jafrani Ganda, Maulshri, Jasmine, Kadamb, Merigold, Henna and Gul henna are the local crops of Kannauj. Spices and herbs come from North-East States of India and Himalayan region in the North.

The attars can be classified as follows on the basis of flower (raw material used):

- Gulab (*Rosa Damascena* or Rose Edward);
- Kewra (*Pandanus Odaritismus*);
- Motia (*Jasmimum Sambac*);
- Gulhina (*Lawsonia Alba*);
- Chameli (*Jasmimum Glandiforum*);
- Kadam (*Antocephalus Cadamba*);
- Khus (*Vetiver*);
- Henna (*Lausonia Inermis*) and its various forms like Shamama, Shaman-Tul-Amber, Mus Amber and Musk Henna; and
- Mitti (Gill from the baked earth of Kannauj).

The following are the plants grown in Kannauj district and adjoining districts for the purpose of attar and essential oil making:

- Mentha Mint (*Mentha Arvensis*)
- Rosa Grass or Palmarosa (*Cymbopogon Martini*)
- Citronella (*Cymbopogon Winterianus*)
- Lemon Grass or Neebughas (*Cymbopogon Flexuosus*)
- Patchouli (*Pogostemon Patchouli*)
- Tulsi (*Ocimum Basilicum*)
- Rose (*Rosa Damomila*)
- German Chamomile (*Matricaria Chamomila*)
- Marigold or Genda (*Tagetes Spp.*)
- Bela or Jasmine (*Jasminum Sambae*)
- Henna or Mehendi (*Lausonia Inermis*)

Excluding Henna rest of the attars are made from a single floral/plant material. Henna attar is a perfume compound. A great many floral and herbal materials are used some of which are oakmoss, sugandhi mantra, laurel berry, juniper berry, cypriol, Indian valerian, jattamanshi, hydichium spicatum and attars of Gulab, Kewra, Motia, Gulhina and Chameli. The superior quality Henna may contain saffron, ambergris, musk and agarwood oil.

Sandalwood oil is the best base for attar making. The scarcity of sandalwood has rocked its price to make it virtually unaffordable range. Alternative base materials liquid paraffin and Di-Octyl Phthalate (DOP) are used for making cheaper attars.

Indeed single odour attars are produced but the spectrum of attar fragrances expands to abysmal length when the blending of different flowers, herbs and spices is done to create complex unique aroma owning attars. In this course mainly as raw material Oakmoss, Sugandh Mantri, Laurel Berry, Juniper Berry, Cypriol, Indian Valerian, Jatamansi, Hedychium Spicatum, Daru Haldi, Sugandha Bala, Sugandha Kokila, Kulanjan, Javitri, Jaiphal, Cardamom, Clove, Saffron, Ambergris and Musk herbs and spices are used.

**G) Geographical Area of Production and Map as shown in page no. 25 :**

Kannauj district lies between 27°13' 30" North latitude and from 79° 80' 01" East longitudes. The distilleries are also spread in deep interiors close to the crops and the Kannauj town is the epicentre of the commercial and production activities.

**H) Proof of Origin [Historical Records]:**

The distillation of scents, perfumes and fragrant liquids and ointments was one area where the knowledge of chemistry was applied in India since ancient times. The fact that the very word *scent* which is of unexplained origin, according to Oxford Dictionary, is possibly derived from Sanskrit word *Sugandha*. Sandalwood oil is reported to be an export item since ages. The Greek text of the First Century A.D. *Periplus* mentions sandalwood as one of the items being imported from India. The sandalwood tree is native of India and is found in South-Western region of India. The reference to sandalwood in the *Periplus* is perhaps the earliest available western reference to sandalwood. Sandalwood has been mentioned by Comas Indiwpleustes in the 6<sup>th</sup> century A.D. as *Tzandana* and thereafter it is frequently referred to by Arab traders.

There are evidences in the history and Hindus sacred books indicate the existence of perfumery tradition to over 5000 years and goes back to the Indus valley civilization. The history of attars is associated with the history of Kannauj. Kannauj has been known for natural attars from the Mughal period or even earlier when aroma bearing substances like sandal, Musk, Camphor, Saffron were used as such and the range of such materials and essential oils were enriched during the Mughal period when new plants were brought by the Mughals from the Central Asia. This was the beginning of the natural attars in India which developed and flourished in and around Kannauj and is quite strong even now. The attars of Rose and Kewra are two unique attars to India which constitute 80% of all the attars produced at Kannauj.

Perfumers' stamps *Gandhikanama* of 2 B.C. made of copper have been found in Koshambi. It establishes the fact that perfume trade goes back at least to the 2 B.C. in the Koshambi region. It is a well-established fact that Kannauj is a very historic place and this town saw its most glorious time during the period of Emperor Harshvardhan (606-647 A.D.) as his kingdom's capital. The replica of Golden coin of Emperor Harshvardhan in the museum of Kannauj indicates the wealth of the Emperor Harshvardhan's kingdom. Some of the perfume manufacturers and traders were so powerful and influential that they were allowed to mint their own coins. It is said that in the ancient period attar/perfume was used only by noble class. The finding of small fragrance containers (*Kuppi*) in excavations in Kannauj points towards use of perfume/attar.

*Jalyeaya Aaswan* (water distillation) technique, which is primarily used in rose attar making, has its mention in Ayurveda book *Charak Samhita* (2000 B.C.). It is the oldest available record of rose water distillation. In 1600 A.D. the rose oil distillation was developed in Shiraz (Iran) and rose oil was called attar which is a Turkish word.

Banbhatt, the court poet of the Emperor Harshvardhan, mentions the use of *gandhika* (fragrance) in the marriage of Emperor's sister Rajshree marriage. He also mentions use of *gandhika* by the nobles using terminology *Aangrag*. There are also mention of *Ubtan* (face pack), *Patwas* (fragrance in clothing), *Yakshyakardam* (fragrance mixed with

liquid) and *Agraja* (fragrance poured in lanes) in his famous work *Harshcharita*. The pictorial description of fields, environment, agriculture and land given by Bannbhatt in his writings is quite convincing in the light of rivers flown in the region of Kannauj that it would be an ideal place for cultivating the tender crops of flowers.

India has perfumery tradition that dates back to over 5,000 years to the Indus valley civilization. In excavations at Harrapa and Mohenjadarro, a water distillation still and receiver have been recovered, which bears testimony to the advances that had been made in distillation aromatic materials. The people of the ancient India were familiar with perfumed water, Kasturi (musk), Kesar (saffron), Chandan (sandalwood) and Kapoor (Camphor). During the Gupta period in the 7<sup>th</sup> century A.D., the use of perfumed cream bases, facial cosmetics, hair oils and eye shadows were common. There is mention of perfumery products in ancient Pali and Islamic texts. Kannauj is to India what Grasse is to France, but with a perfumery tradition far more ancient.

How Kannauj came to become a centre of a perfumery is not fully known, but one can surmise that during the reign of Emperor Harshvardhan (606-647 A.D.), when Hindu art and culture were at their zenith, the perfume industry took its firm footing.

Emperor Jahangir (1605-1625 A.D.) in *Tojak Jahangiri* referred to the distillation of rose water. There is a mention of invention of *rooah-e-gulab* by queen Noorjahan in *Tojak Jahangiri*. The mention of calling of *Daroga-e-Kushboo* from Kannauj to Agra by the queen Noorjahan in some texts. In the Mughal period the use of the attar grew and the domain of the class using attar expanded.

Perhaps Kannauj was chosen by the Mughals for attar manufacturing due to its geographical location which was unique in planes of North India. Kannauj is situated on the banks of the river Ganga and with four other rivers in the neighbourhood, which makes the area perfect for the cultivation and growth of flowers and *Khus* (Vetiver).

In *Aain-e-Akbari* Abul Fazal mentions Emperor Akbar (1547-1605 A.D.) was exceedingly fond of perfumes and the court chamber was continuously scented with flowers and fumigated with preparations of Ambergris (incense sticks) and Aloes in gold and silver censers. Noorjahan showed her passion for rooah gulab, Kannauj situating on the banks of Ganga and Kali rivers became a favourite place for Jahangir to experiment for his beloved queen's passion that led to the beginning of attar industry at Kannauj. New rose flower plants (*Rosa Damascena*) were brought from Iran and other Central Asian countries and grown across the region. Kannauj slowly but steadily grew as the Perfume City of India. Presently with over 25,000 of nearly 80,000 population of the Kannauj town directly or indirectly involved with perfume/attar production and related products like incense sticks, *dhoop* sticks, Rose water and *gulkand* (sweetmeat made of rose petals and sugar).

The tall gates at the two entrances of the Kannauj town by a local perfumer in the year 1944 indicate the glorious past of attar industry in Kannauj.

In summing up the scattered history of Kannauj perfumery, just like the characteristic of perfume, a poet and former Governor to Uttar Pradesh Shri Munshi has rightly said *if you want to visit a perfumery town, visit Kannauj. It is an art, it is a culture, and it is a heritage.*

## I) Method of Production:

There are following three methods in use for producing attar in Kannauj:

- Hydro-distillation to make attar out of flowers like rose and Kewra;
- Solvent Extractions for making attars from fragile flowers like Bela, Rajnigandha and Chameli; and
- Steam method for making attar from Khas and Nagar Motha.

The attars are made using the centuries old copper vessels called *Deg* (Kettle) or Still and *Bhapka* (Receiver). The *Deg & Bhapka* system is based on hydro-distillation technique. The lid of the *Deg* is called *Sarpos*. It is also made of copper having openings for connections to one or two receivers. The *Deg* capacity range between 10 and 160 Kilos of floral/herbal material. After filing the plant in the *Deg* with the requisite amount of water, the lid is sealed with a mixture of cotton and clay. The *Deg* is heated on wood and cow dung cakes fire. The temperature is controlled by putting in more wood/cow dung cakes or by removing the same. While boiling the raw material in the *Deg* there is considerable increase in pressure inside the *Deg*. To prevent the lid from blowing-off, a leaf spring called *Kamani* is used on the top of the lid. The *Bhapka* is copper made and generally round in shape with a long neck. The fragrance of flowers (raw material) is obtained by condensing vapours into the base material, which is primarily sandalwood oil. The *Deg* and *Bhapka* are connected by a *Chonga*. This is a long bamboo pipe wrapped with twine of insulation. The *Chonga* acts as a condenser. The mouth of the *Bhapka* is sealed by wrapping coarse cloth around the bamboo pipe and pushing it inside the condenser. The *Bhapka* may contain up to 5-10 Kilos of base material and is kept cool in a small water tank.

The distillation is managed by highly experienced and skilled workers known as *Dighaa*. The *Dighaa* knows by experience when enough vapours have been condensed inside the *Bhapka*. The water of the tank inside of which *Bhapka* placed is changed continuously to keep the *Bhapka* cool. When the desired quantity of vapours get condensed, the *Dighaa* rubs wet cloth around the body of the still for a temporary pause in distillation and the filled *Bhapka* is replaced by another *Bhapka*. The *Bhapka* is then allowed to cool. The mixture of oil and water is then separated either directly from the *Bhapka* through a hole at the bottom or pouring the mixture in an open trough. After the oil and water have been separated as two different layers, the water is removed for an opening in the bottom which goes back to the *Deg*. The base material remains in the *Bhapka*. If the desired concentration of attar is achieved, then the final attar is poured into leather bottles, known as *Kuppi*, made of buffalo leather for sedimentation and removal of moisture from the attar. If the desired concentration level is not achieved in the attar, then the attar is poured back to the *Bhapka*. The *Bhapka* is then attached to the *Deg* and the above explained process is repeated till the desired attar concentration is not achieved. For producing essential oil, the base material is not used and the remaining method and instrumentation remain the same as explained above. The leftover liquid (hydrosol) in *Deg* after the distillation process for rose oil making is known as Rose Water.

Very special and different attar is *Attar Mitti*. Instead of distilling plant material, like rose or jasmine flowers, half-baked clay is distilled for making attar mitti. The clay is first collected in the neighbouring villages. The little clay cakes are made, dried in sun light and then semi-baked. These semi-baked clay cakes are placed with water in the *Deg*. The rest of the process is the same above-explained hydro-distillation process for making

attar. The odour of *attar mitti* is a very sweet combination of the woody and oriental note of the sandalwood with an earthy smell. The smell of wet earth after the monsoon is what *attar mitti* fragrance reminds of.

The leftover in Deg is put in open to get dry. After drying it is used for incense sticks, Dhoop and *Hawan Samigri*.

**J) Uniqueness:**

The uniqueness of Kannauj attar industry lies in its know-how of fragrance and fragrance blending learned in centuries long existence and reputation for producing quality Attar. Besides attars derived from single flower fragrance, a large number of attars are made by blending fragrances of different flowers, herbs and spices. The simple appearing water distillation process needs highly skilled and experienced workers. The key unique features are as follows:

- Attar making is a centuries old art evolved, developed and confined to a limited geographical area Kannauj, a historic town, located in Uttar Pradesh.
- The blending and mixing are conducted during distillation process. The blending and mixing processes are trade secret of Kannauj.
- The Deg-Bhapka instrument used in water distillation is unique in itself.
- The non-metal connector between Deg and Bhapka is also unique. The connector is made of bamboo.
- For removing the moisture from the attar buffalo leather bottles are used.
- The consistency at which a peculiar fragrance is developed through blending reflects mastery over the attar making art.
- The knowledge of attar making has remained confined to Kannauj only due to secret processes and tricks used in attar making.

**K) Inspection Body:**

By an Office Memo of Export Promotion Bureau, Uttar Pradesh, an Inspection Body has been formed for the Kannauj Perfume (Attar) for securing the Geographical Indication Registration. The following shall be the members of the Inspection Body: Technical Member nominated by the Principle Director, Fragrance and Flavor Development Centre (FFDC), Kannauj; Two local National/State Award winner expert craftsmen who would work in rotation of seniority for a year; and General Manager, District Industry Centre, Kannauj who shall work as a Convener.

The Inspection Body shall work under the coordination of Umbrella Organization for which Government Order 1273/18-4-2012-37 (Mis)/06 has been issued on July 2, 2012. The Export Promotion Bureau, U.P, shall be the Nodal Agency in this respect.

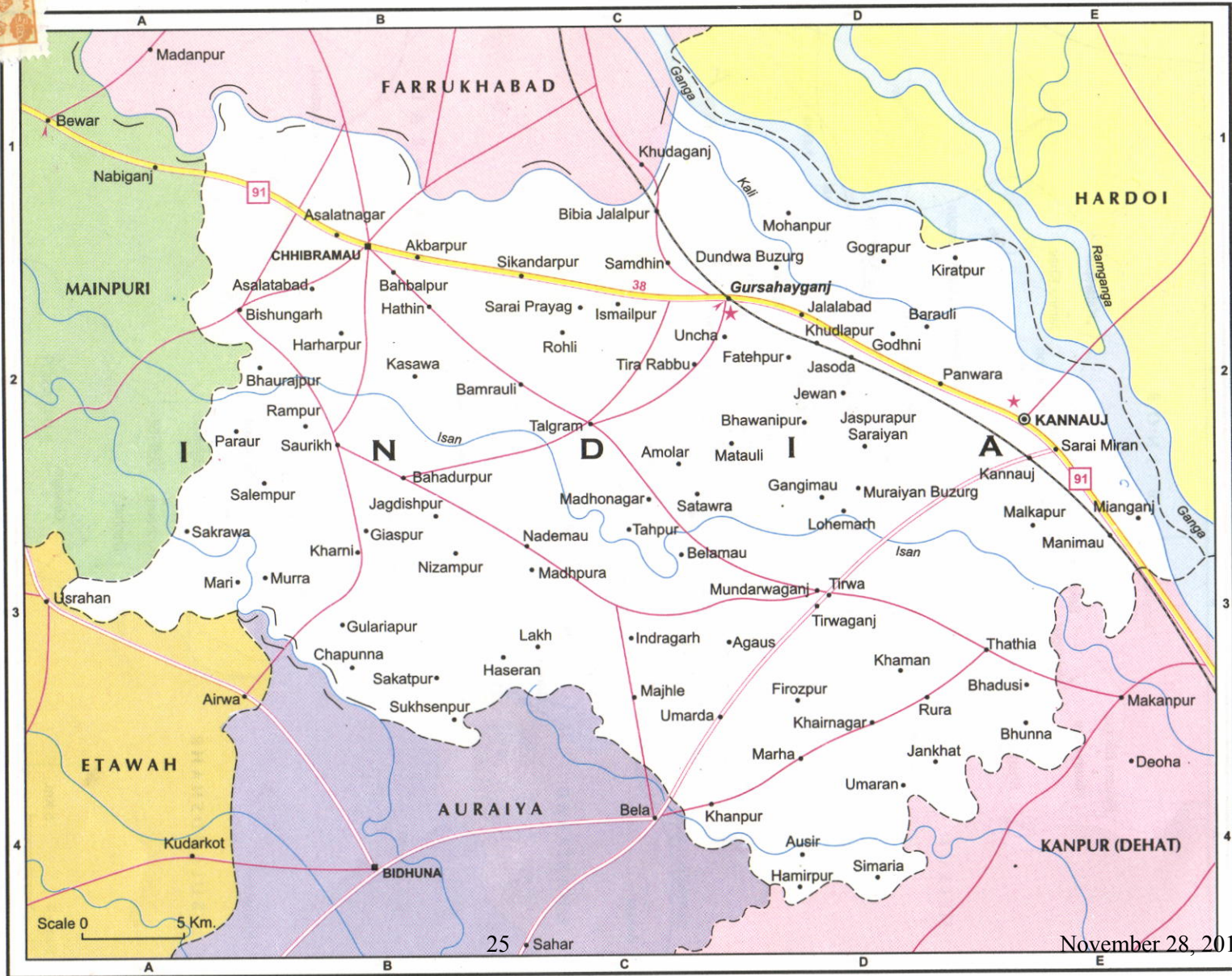
**L) Others:**

The Kannauj perfume (attar) industry is based in trade secrets of fragrance blending and mixing. It is a centuries old industry remained confined to Kannauj. The climate has changed a lot during last a few centuries and thus in the changed environmental landscape the raw material procurement places have changed. Now-a-days flowers are plucked from around the country. The processing of the delicate flowers is conducted in the remote locations





**ATTESTED**  
S.K. VERMA  
Lucknow U.P. No. 31/51/2000  
Regd. No. 29 JUN 2009



KANNAUJ  
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Advertised under Rule 41 (1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 54 dated 28<sup>th</sup> November 2013

**G.I. APPLICATION NUMBER – 159**

Application Date: 09-02-2009

Application 159 & 160 made by **Harness and Saddlery Exporters Association**, 77, Industrial Estate, Kalpi Road, Kanpur, Uttar Pradesh, India, Facilitated by Export Commissioner, Uttar Pradesh Government, Export Promotion Bureau, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow - 226010, Uttar Pradesh, India for Registration in Part A of the Register of **Kanpur Saddlery** are merged together to proceed as a single application as per the order of Registrar of Geographical Indications dated 18-08-2009 under Application No. 159 in respect of Leather and imitation of leather, and goods made of these materials are not included in other classes; Harness and Saddlery falling in Class – 18 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) Name of the Applicant** : **Harness and Saddlery Exporters Association, Kanpur**
- B) Address** : Harness and Saddlery Exporters Association,  
Kanpur 77, Industrial Estate, Kalpi Road, Kanpur
- Facilitated by Export Commissioner, Uttar Pradesh Government, Export Promotion Bureau, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow, Uttar Pradesh, India
- C) Type of Goods** : **Class – 18** - Leather and imitation of leather, and goods made of these materials are not included in other classes; Harness and Saddlery.

**D) Specification:**

The products' range of Kanpur Harness & Saddlery industry is over 300 products; it shoots to over 5000 when horseback rider goods are included. The goods can be divided into four parts on the basis of material used in their making: leather, synthetic leather, fabric and plastic or fibre.

The saddle is built to the customer's measurements and the customer chooses all features. Each horse is different in size.

The saddle trees were generally made of soft wood. Now the polymer (reinforced plastic fibre) made saddle tree are also used. There are no saddle tree industry standards for measurement and terminology. However saddle tree size lies in 15½ inches, 16½ inches and 17½ inches range.

The **Bars** of the saddle tree are the actual weight-bearing surface of the saddle. They are the parts that are in contact with the horse. Well-fitting bars of a western saddle will apply only  $\frac{3}{4}$  lbs per square inch to the horse's back with a 150 lb rider up. In contrast, an English saddle, which has far less surface area, will apply about  $1\frac{3}{4}$  lbs per square inch with the same rider up. How well a saddle tree will fit a horse's back is determined by the shape of the bars. There are three curves, Rocker (curve on the bottom of the tree), Twist (curve from the front to back of each side of the tree) and Flare (curve at the front and back edges of the bars), to the bars that determine fitting.

The **Saddle Fork** on a slick fork saddle is generally only 8 to 10 inches wide with the sides of the fork sloping straight up to the outside of the horn. The swell fork saddle has a swell that is generally 11 to 14 inches wide.

The **Saddle Seat** size is a method to guess the size of a saddle. Seat size measures the distance from the base of the horn to the top middle edge of the cantle. It is expressed in half-inch increments and ranges from 12 inches to 17 inches.

The **Clinch** comes in size ranging between 22 inch and 38 inch with two inch increments. The most common sizes are 30, 32 and 34 inch. Mohair is the best manufacturing material.

The **Breast Collars** are generally one-size fits for all. The rigs straps are generally between one and four inches wide. Leather is the traditional material and wide varieties of materials like mohair, cotton, nylon, fleece and neoprene are also used.

The **Latigo** are usually in  $1\frac{1}{2}$  to 2 inches wide and about 6 feet long. In addition to leather they are also made of synthetics such as nylon webbing.

The **Saddle String** is usually made from flexible latigo leather and is  $\frac{3}{8}$  to  $\frac{1}{2}$  inches wide and 26 inches to 36 inches long.

The **reigns** are flat line of about 30 feet length and one inch wide usually made of nylon or cotton web.

The **Cantle** is the upright portion at the back of the seat. As an important part of the saddle tree holding the bars together at the back of the tree. It also provides a backrest and secures the rider so that they do not slide off the back of the saddle. Its design depends on the following factors:

- Height: Old time saddles had heights of 5-6 inches. Most modern saddles now have 4 inches heights, with some competition saddles (cutters and ropers) having heights as low as 2 inches.
- Slope or Angle: Options are low, medium and steep. Medium slope is found on the majority of modern saddles.
- Shape: Options include regular (oval), comfort (flat-topped with rounded corners) and shovel (tall)

- Dish: The depth of the recess in the front side. It may range from almost no dish to a two inch dish. Most common is 1 to 1/2 inches.

The **Saddle Horns** come in many shapes and sizes depending on usage and preference. They are made of wood, steel, and brass and covered with rawhide. The Horn styles vary by type of saddle. Options include height, cap diameter, cap shape, cap angle, and neck diameter.

The **Western Stirrups** have height and width measurements that are taken from the inside. The width is measured at the widest point, and the height is measured from the tread to the roller. The tread depth can vary from less than an inch on Ox Bows to six inches on some bell bottoms. The stirrups can be made of wood, wood covered with galvanized sheet metal for added strength, or covered with both leather and metal.

Seven-Eighths single or double rigs are the most popular **Saddle Rigging** positions. Some saddles are built with a three-way rigging plate that allows a saddle to be used in Full, Seven-Eighths, and Three-Quarters positions.

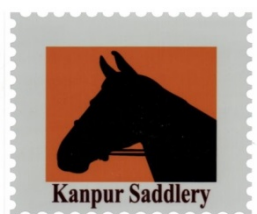
The measurement for parts of a **bridle** are provided below which are provided as an example only:

- Throatlatch (or throatlash): 12.2 inch
- Crownpiece: 43.3 inch
- Cheek pieces: 10.5 inch
- Brow Band: 16 inch
- Noseband (the noseband and its strap together are called a caveson): 14 inch
- Crownpiece: 30.5 inch

The widths of the straps used in bridle are ½ inches and ¾ inch. Vegetable tanned Buffalo leather is used in Kanpur made harness & saddler items. In saddle old time saddles were of height 5-6 inches. The modern saddles have 4 inches height. The competition saddles have height as low as 2 inches. For slope and angles options are low, medium and steep. Modern saddles are made with medium slope. Shapes of Saddle are regular (oval), comfort (flat topped with rounded corners) and shovel. For the dish the depth of the recess in the front side the range is between zero and 2 inches; the most common is half and one inches.

**E) Name of the Geographical Indication:**

**KANPUR SADDLERY**



## **F) Description of the Goods:**

Products that provide comfort, safety and protection to the horse as well as to the rider are covered in the range of Harness items. In layman's language the items required when the Horse is attached to the cart are known as Harness item. Products only for Horse or any animal individual, like Saddle & Bridle, are known as Saddlery. Western Saddle (American style & design) and English Saddle (European style & design) are the two classes of saddle. The harness & saddlery comprise more than 300 products which can be classified into the following four categories:

- **Saddle:**

The Saddles made in India could be classified in 20 different styles, such as Jumping, All-purpose, Dressage, Polo, Semi-Military, British Trooper, Close Contact, Lane Fox, Icelandic, Racing, Australian Stock, Halflinger, Endurance Saddles etc. suited for English & Western type of riding. These Saddles can weigh between 500 Gms. To 15 Kgs. due to which the consumption of leather and other inputs has a wide variation.

- **Harness Sets:**

The Harness sets are used for driving Horse drawn coaches/carriages (Buggies). There is a wide variety in these sets also, such as Driving, Gypsy, Trotting, Marathon, Biting Rig, Show/Presentation harnesses, etc.; for single horses, double horses and for four horses. Therefore, the weight for these sets range between 5-50 kgs. in which, besides leather, very heavy metal Fittings are also used.

- **Accessories:**

These items are used by the riders in various events and the commonly used items are Bridles, Halters, Stirrups, Girths, Surcingles, Martingales, Breastplates, Cruppers and saddle pads etc. These weigh between 0.50 grams to 2.5 kgs.

- **Stable & Grooming Equipment's:**

These products are mainly used for the care of the horse within the stable or when the horse is taken outdoors for training. These are made of Cotton, Nylon, Wool and Felt combinations. The construction of these articles requires Straps, Patches or Bindings made out of Leather. The commonly used stable equipment's are called summer heeds, rugs, Horse Boots, Lead reins and Lunge Cavesons, etc.

Gradually articles related to horseback rider also added in the list of saddler goods manufactured by the Kanpur saddlery industry. First to get involve was riding boot. Later all kind of articles for grooming the horseback rider joined to expand the catalogue of Kanpur based harness & saddler industry to more than 5,000 items in different designs and materials.

The most of the goods for horse dressing are made of leather or leather-like synthetic materials, nylon or neoprene, sometimes with elastic. But goods like stable rugs/exercise sheets/outdoor rugs, pads, protection pads, lamb wool products, ear bonnet, fly veil, eye

veils, protection boots, riding boots, bandages are manufactured using fabric with or without leather, leather-like synthetic material and leather.

*Cossentine Saddlery* reports that Saddle makers have to work to keep up with the specific demands of the individual riders and events. The saddle specifications vary with gaited horse needing saddles to suit their particular way of going, to a mule needing a saddle able to fit their down-sloped back. Even Arabian horses require specialized saddle to adapt to the differing bone structure inherent to the breed. Initially wooden *saddle-trees* were made since the invention of horse-back tree in the 19<sup>th</sup> century. Since then the *tree* has made great advancement with the introduction of lighter forms of wood and fibreglass and more recently in some cases even removal of the *tree* altogether by inventing treeless western saddle.

There are more than 300 (Three hundred) harness & saddlery items.

*Tack* is a term used to describe any of the various equipment and accessories worn by horses in the course of their use as domesticated animals. Saddles, stirrups, bridles, halters, reins, bits, harnesses, martingales, and breastplates are all forms of horse tack. Equipping a horse is often referred to as *tacking up*.

***Saddle tree*** is the foundation of a saddle. The job of the saddle tree is to distribute the rider's weight over the horse's back, making it more efficient and comfortable for the horse to bear it. Earlier it was made by light wood but now reinforced plastic fibre (RPF) is used. A tree consists of five basic parts: the two bars that run parallel, the fork that holds the bars together at the front, the cantle that holds the bars together in the back, and the horn. The cut-out or tunnel underneath the fork is called the *gullet*. The open space created between the bars is called the *gullet channel*. ***The saddle fork*** is the front of the saddle tree. The fork provides shape to the front of the saddle. The Fork styles come in two basic varieties: slick fork (also known as a fork) and swell fork. The ***cantle*** is the upright portion at the back of the seat. As an important part of the saddle tree holds the bars together at the back of the tree. It also provides a backrest and secures the rider so that they do not slide off the back of the saddle. Its design depends on its height, slope/angle, shape and dish.

***Saddles*** are seats for the rider, fastened to the horse's back by means of a girth (English-style riding), known as a cinch, a wide strap that goes around the horse at a point about four inches behind the forelegs. Some western saddles will also have a second strap known as a flank or back cinch that fastens at the rear of the saddle and goes around the widest part of the horse's belly.

There are many types of saddles, each specially designed for its given task. The Saddles are usually divided into two major categories: *English saddle* and *Western saddle*. One variant of the English saddle is a three point seat used by many dressage riders. The modern Western saddles were adapted to suit the needs of vaqueros and cowboys and they include addition of a horn to the saddle that allowed a lariat to be tied or dallied for

the purpose of holding cattle and other livestock. A classification of the western saddle parts has been shown in

A saddle can be made by either leather or synthetic; in terms of saddle tree, it could be wade, flex tree or treeless ; in terms of horse breed it could be for Arabian, Gaited or Mule. Australian and Trophy are the other saddle types.

Some saddle accessories may be functional or ornamental. The following are 26 kinds of saddle accessories: Saddle Pads or Blankets, Bareback Pads, Stirrups, Front Clinches and Flank Clinches, Breast Collars, Saddlebags, Latigos, Off Billets and Flank Billets, Rope Straps, Saddle Strings, Nightlatch, Bucking Rolls, Horn Wraps, Tapadaros, Cruppers, Saddle Breeching, Seat Savers, Buddy Seats, Silver Trim, Saddle Covers, Saddle Carriers, Saddle Pad Carriers, Saddle Racks, Saddle Blanket Bars and Racks, Mounting Blocks and Saddle Flag Carriers.

**Saddle Pads** are placed between a horseback and saddle. The purpose of saddle pad is to reduce pressure on horseback, prevent the saddle from slipping or rocking, removing horse sweat/water and thus keeping his back cool and protecting the saddle from dirt, sweat and horse hair. Saddle pads can be made either by natural fibres or synthetic materials.

**Bareback Pad or bareback saddle or bareback saddle pad** is a compromise between riding bareback and riding with saddle. The surface it provides helps to have a bit more grip and weight distribution than riding strictly bareback. These pads consist of contoured pad made from fleece, nylon, wool, or rough out leather. Bareback pads are secured with a strap or Clinch.

**Stirrup** is a ring with a flat bottom fixed on a leather strap, usually hung from each side of a saddle by an adjustable strap to create a footrest for a person using a riding horse used as a support for the foot of a rider when seated in the saddle and as an aid in mounting. It greatly increases the rider's ability to stay in the saddle and control the mount, increasing the animal's usefulness in communication, transportation and warfare.

The **Clinch** (also known as Front Clinch) is a wide strap that fits under the horse and attaches to the rigging to secure the saddle. In the English saddle this part is known as a *Girth*. The Clinches are made from a wide variety of materials with the objective to transfer sweat away from the horse body and allow evaporation. Cent percent Mohair is the best material for the clinch making. Mohair blend with a percentage of nylon or wool are also used.

The **Breast Collar** is a combination of straps that go around the front of the horse and attach to the saddle. Its objective is to prevent the saddle from slipping backwards. The breast collar consists of the breast plate, two rig straps and a center tie-down strap. The straps vary in width but are typically between one and four inches width. The rig straps are anchored at each side of the saddle to either small *dee* rings or slots on the front of the skirts or to the front rigging rings.

The **Saddle Bags** and other on saddle carrier have traditionally been made from leather or strong canvas. The saddlebags are two pouches connected by a wide yoke. The bags lie behind the cantle across the back jockeys and are attached with saddle string threaded through eyelets in the yoke. There are dozens of options available in on-saddle carrying gear.

The **Latigos or cinch tie strap** is the strap that connects the cinch to the saddle's rigging. The Cinch Tie Straps were traditionally made of latigo leather and gradually the good itself become famous by its material name, i.e. Latigo. The latigo is connected through the cinch ring on the near (left) side. Most have holes for connecting to the tongue on a cinch buckle or can also simply be tied off to the cinch ring. The loose end is then placed in the latigo holder. A latigo can also be used in place of an off billet on the off (right) side.

The **Off Billets and Flank Billets** are also known as front and back billets. They anchor the flank cinch to the rigging rings on each side of the saddle. These billets are generally made with only one layer of leather, as opposed to the two layers on the off billet. These billets are usually 1½ to 2 inches wide and about 2 to 3 feet long with holes for bucking to the flank cinch.

The **Rope Strap** is a narrow strip of leather of about ¾ inch wide that is attached to the off (right) side of the saddle on the fork. Its objective is to hold a lariat. Most straps are designed to be looped over the horn and will break if the rider gets entangled. Rope straps are found mainly on roping and ranch saddles.

The **Saddle Strings** are the long, narrow leather straps that hang off the side of a saddle. They are used to tie gear such as slickers, lariats, saddlebags and canteens to the saddle. The main objective of these strings was to hold together the pieces of saddle coverings, the sheep skin, skirts, and jockeys, and anchor them to the bars. Decorative conchos made of either leather or metal act as washers and the string is then tied using the slit-braid method where one end of the string is tied through slots in the other end. There are four locations for saddle strings on each side of a western saddle: on the rear jockey; on the ear of the seat jockey; below the base of the fork; and on the front jockey. If a saddle has strings in all four positions, it is an eight-string saddle.

The **Nightlatch**, known as security or safety strap, is a thin strap that attaches around the fork at the front of the saddle. This strap earned the name Nightlatch because its objective was to offer a hold to a rider who would sleep on a night ride and trust his horse to find his way home.

The **Bucking Rolls** are two padded pouches that are added to the front of the saddle seat to supplement the swells and help a rider stay in the saddle. The two rolls are connected in the center, usually with a leather strap. They are made in a curved shape to conform to the contour of the saddle. They are attached to the saddle with the saddle strings or screws. The bucking rolls are generally made of leather and could be in soft chap leather



and even in exotic leather. They are made in different width, height, colours and hardness.

The **Horn Wrap**, known as a dally wrap, is an extra layer of material wrapped around the horn to protect it from the rigors of roping and to provide a better grip for the rope. The horn wrap comes in variety of leather and rubber materials. The leather horn wraps include mule hide, raw hide and heavy latigo.

The **Tapadaros**, also known as *taps*, are covers or hoods for the front of the stirrups. The purpose of Taps was to: protect the boots from getting scratched or hung up in heavy brush and mesquite that can be quite destructive; keep the feet warm; prevent the feet from turning in the stirrups or from going through the stirrups if riding in low-heeled boots; and in a pinch, when the hands were occupied, be used to communicate with, or steer the horse by slapping the horse's shoulder or neck. Traditionally the tapadaros are made of heavy skirting leather. But nylon made tapadaros are also available.

The **Crupper** is a piece of tack used on horses and other equips to keep a saddle, harness or other equipment from sliding forward. It is a strap that goes under the horse's tail and attaches to the back of the saddle. Its objective is to helping to keep the saddle from slipping forward. It is used in areas of very steep terrain and in endurance riding. It is made of leather, nylon, neoprene and a combination of these materials.

The **Saddle Breeching**, known as saddle britchen, is a set of straps that lay behind the animal's thighs and attach to the back of the saddle and the rigging hardware. Its purpose is to help keeping the saddle from slipping forward on rough terrain or on low withered horses. It is usually made of harness leather or felt-lined nylon.

The **Saddle Seat Saver** (also known as *Cushion* or *pad* or *cover*) is added to the seat of the saddle to provide some relief to the rider's tush. It also helps in protecting the saddle. They are available in fleece and nylon.

The **Saddle Buddy Seat**, also known as a rumble seat, is a second seat attachment to a saddle for carrying a child. There are several different types of buddy seats are available. It is made of strong nylon with thick padding in the fork and cantle and adjustable stirrups. It can be attached to the saddle with adjustable nylon straps that buckle to the saddle and rigging rings.

The **Saddle Covers** are for protecting the saddle. The best material for covers is heavyweight nylon.

The **Saddle Carrier** is a handy accessory for travelling with the tack. Some carriers are large rectangular gear bags, others more closely follow the shape of a western saddle. The best material for carriers is heavyweight nylon.

The **Saddle Pad Carriers** are usually made from water proof nylon with web handles and shoulder straps.

The **Saddle Rack**, also known as Saddle Stand, is for storing saddle. It comes in many varieties to serve different needs in diversified conditions. The racks are mainly made of wood, aluminium, or metal. They come mainly in either free-standing or wall-mounted models.

The **Saddle Blanket Bars and Racks** are for storing pads and blankets when not in use. The bars and racks help to keep the tack tidy and in good shape. They may be wall-mounted, free-standing or portable.

The **Mounting Blocks and Saddle Flag Carriers** provide an easy way to get into the saddle for both horse and rider. The most common mounting blocks available are made out of heavy polyurethane plastic. The common models are two steps of around 15 inches tall or three steps around 24 inches tall.

Bridles, hackamores, halters or head-collars, and similar equipment consist of various arrangements of straps around the horse's head, and are used for controlling and communication with the animal. Collectively they are called **headgear**.

**Halter** (US) or **head-collar** (BI) or **headstall** consists of a noseband and headstall that buckles around the horse's head and allows the horse to be led or tied. The lead rope is separate, and it may be short (from six to ten feet, two to three meters) for everyday leading and tying, or much longer (up to eight meters) for tasks such as for leading packhorses or for picketing a horse out to graze. Some horses, particularly stallions, may have a chain attached to the lead rope and placed over the nose or under the jaw to increase the control provided by a halter while being led. Halters have no bit.

**Bridle** is a piece of equipment used to direct a horse. As defined in the Oxford English Dictionary, the bridle includes both the headstall that holds a bit that goes in the mouth of a horse or other animal, and the reins that are attached to the bit. There are many different designs with many different name variations, but all use a noseband that is designed to exert pressure on sensitive areas of the animal's face in order to provide direction and control.

Bridles usually have a bit attached to reins and are used for riding and driving horses. English Bridles have a cavesson style noseband and are seen in English riding. Their reins are buckled to one another, and they have little adornment or flashy hardware. Western Bridles used in Western riding usually have no noseband, are made of thin bridle leather. They may have long, separated Split reins or shorter closed reins, which sometimes include an attached *Romal*. The bridle consists of the following elements: crownpiece, cheek pieces, throatlatch, browband, noseband, cavesson, frentera, fiador, reins and bit.

The **Crownpiece or Headstall (US) or Headpiece (UK)** goes over the horse head just behind the horse's ears at the poll. It is the main strap which holds the rest of the parts of the bridle in place.

The ***Cheek pieces***, two in number in most of the bridles, are attached to either side of the crownpiece and run down the side of the horse's face along the cheek bone and attach to the bit rings. In some designs the crownpiece is a longer strap that includes the right cheek and crown piece as a single unit and only a left side cheek piece is added.

The ***Throatlatch*** is a part of the same piece of leather as the crownpiece. It runs from the horse's right ear under the horse's throatlatch and attaches below the left ear. Its objective is to prevent the bridle from coming off over the horse's head.

The ***Brow band*** runs from just under one ear of the horse across the forehead to just under the other ear. It prevents the bridle from sliding behind the poll onto the upper neck and holds multiple headstalls together when a cavesson or second bit is added.

The ***noseband*** encircles the nose of the horse.

The ***Cavesson*** is a specific type of noseband used on English bridles wherein the noseband is attached to its headstall held onto the rest of the bridle by the brow band.

The ***Frentera*** is a strap running from the brow band to the nose band and is commonly seen on bridles of South African designs.

The ***Fiador*** is a form of throatlatch used with a hackamore.

The ***Reins*** consist of leather straps or rope attached to the outer ends of a bit and extend to the rider's or driver's hands. Reins are the means by which a horse rider or driver communicates directional commands to the horse's head. Pulling on the reins can be used to steer or stop the horse.

The ***Bit*** is a device placed in a horse's mouth, kept on a horse's head by means of a headstall. There are many types, each useful for specific types of riding and training. The mouthpiece of the bit does not rest on the teeth of the horse, but rather rests on the gums or bars of the horse's mouth in an inter-dental space behind the front incisors and in front of the back molars. The basic styles of bits are Curb bit, Snaffle bit, Pelham bit and Weymouth or Double Bridle. While there are literally hundreds of types of bit mouthpieces, bit rings and bit shanks, essentially there are really only two broad categories: direct pressure bits, broadly termed snaffle bits; and leverage bits, usually termed curbs. Bits that act with direct pressure on the tongue and lips of the bit are in the general category of snaffle bits. Snaffle bits commonly have a single jointed mouthpiece and act with a nutcracker effect on the bars, tongue and occasionally roof of the mouth. However, regardless of mouthpiece, any bit that operates only on direct pressure is a snaffle bit. Leverage bits have shanks coming off the mouthpiece to create leverage that applies pressure to the poll, chin groove and mouth of the horse are in the category of curb bits. Any bit with shanks that works off of leverage is called a curb bit, regardless of whether the mouthpiece is solid or jointed.

A bridle, depending on the style may also contain the following fittings: Bit guard, Curb Strap, Lip Strap, Bit Hobble, Shank Hobble, Winkers and Over Cheek.

**Cowboy boots** refer to a specific style of riding boot, historically worn by cowboys. They have a high heel, rounded to pointed toe, high shaft, and, traditionally, no lacing. Cowboy boots are normally made from cowhide leather. There are two basic styles of cowboy boots: Western (or Classic), and Roper. The western style is distinguished by a tall boot shaft, going to at least mid-calf, with an angled cowboy heel, usually over one inch high. The western boots can be customized with a wide variety of toe shapes but the classic design boot has a narrowed, usually pointed, toe.

The horseback rider goods, which are manufactured by the Kanpur Saddlery Industry, include half chaps, Spurs or Jodhpur Riding Boots, Riding Boots, Winter riding boots, Wellington boots, Knee socks, short socks, undershirts, shirts, riding jackets, Gilet, Vest, riding blouse, waistcoat, breeches, riding breeches, winter breeches, safety articles like fluorescent bib, fluorescent exercise sheet, fluorescent leg bands, fluorescent leg bands, fluorescent waistcoat and competition clothing which includes blouse, jacket, short sleeve shirt, velvet tie, blouse bib.

**G) Geographical Area of Production and Map as shown in page no. 42 & 43 :**

Kanpur and Unnao Districts of Uttar Pradesh. In both the districts the industrial areas of Kanpur and Unnao are the main centres having harness & saddlery units.

**H) Proof of Origin [Historical Records]:**

Kanpur Saddlery industry is consists of small scale units and cottage units. The annual turnover of Kanpur-Unnao leather manufacturing is of around Rs 2637 crores. In India Kanpur is the only place where saddler items are manufactured.

Tirthankar Roy in his book *Traditional Industry in the Economy of Colonial India* (ISBN 0 521 65012 7) published by Cambridge University Press (1999) writes “Kanpur, since its occupation in 1801, housed a cantonment. When the mutiny demonstrated that the need to have army supply bases closes to areas of potential trouble, Kanpur was chosen as the site for a government harness and saddler factory in 1867. The idea was implemented by a young artillery officer, J. Stewart. The first workers were English soldiers with experience in tan yards. In 1880, a north Indian managing agency started Cooper Allen, shortly to become the source for the entire Indian army’s boots, shoes and saddlery (p 176)”. Tirthankar further writes that “what is remarkable is the ease with which the cobbler seemed to reorient his skills. Long before mutiny, leather artisans supplied European residents with the style of shoes they wanted. In the 1870s, the Mochis used imported leather in the northern towns to manufacture shoes and saddlery”.

British master craftsmen came to train the local craftsmen. The Kanpur saddlery grew during the periods of world wars by fulfilling the sudden spurt of saddlery. After the two world wars and the introduction of automobiles in the army, the activities at Allan

Cooper virtually came to stand still. It was during the early 1970s a few local entrepreneurs engaged in leather industry, decided to utilize the skills of local craftsmen for reviving the saddlery industry. It took two decades for the Kanpur saddler industry to earn name as saddler manufacturer. By the 1990s it made a mark at the international level and blossomed.

The saddler industry is highly labour-intensive and 100% export oriented. The local market for saddler is negligible. Presently there are around 2000 registered units out of which 1200 are functional in and around Kanpur both in small scale and cottage sectors. Annual turnover of saddler units is around Rs 360 crore. Around 30,000 workers are directly engaged in the saddler items manufacturing and around 20,000 workers are indirectly engaged.

Council for Leather Exports certifies the existence of 144 manufacturers-exporters as registered members with them for the Harness & Saddlery products.

#### **I) Method of Production:**

The saddle making is a handicraft. Leather is the main material used in making saddlery goods. The use of imitation leather, soft material and hand sewn are also in practice. There are two segments of production. One is manufacturing and the other is assembling. Goods like saddle tree, saddle seat and straps of different width and length are manufactured whereas good like bridles are assembled with the help of the related straps and metallic items like buckles and rings.

##### **Saddle Tree**

Saddle tree is a frame which is the foundation of saddle build over it. A tree consists of five basic parts: the two bars that run parallel, the fork that holds the bars together at the front, the cantle that holds the bars together in the back, and the horn. The cut out or tunnel underneath the fork is called the gullet. The open space created between the bars is called the gullet channel. Saddle trees are traditionally made of wood; this is the reason for calling it trees. Usually softer woods, like Ponderosa Pine, Beachwood, Ash, Cottonwood, Douglas Fir, are chosen for their flexibility characteristics. Once assembled, a covering is stretched wet over the tree and then allowed to dry and shrink, further strengthening the tree. Rawhide covering is the traditional material, with bull-hide, the heaviest weight of rawhide, the top of the line. Lesser quality coverings include canvas, cheesecloth, and poorer quality hides. After the covering is dry, a final coat of varnish is applied to seal the rawhide. The result is a strong tree that holds flexibility.

A bull-hide covered wood tree is considered by saddle makers to be the finest saddle tree construction. It is also the most expensive tree construction. With new synthetic materials appearing, saddle trees can now be built for about 25% of the cost of wood trees. As a result, nowadays, the majority of manufactured saddles are built with synthetic material like reinforced plastic fibre (RPF) or plastic or fibreglass.

### **Stirrups**

Western stirrups have height and width measurements that are taken from the inside. The width is measured at the widest point, and the height is measured from the tread to the roller. The tread depth can vary from less than an inch on Ox Bows to six inches on some bell bottoms.

### **Saddle Seat**

It begins with the making of ground seat. The ground seat attaches to the saddle tree. This is the structure that the final finished saddle seat is built upon. The ground seat is usually made of all leather, metal, a combination of leather and metal, or from plastic. Quality ground seats will be slightly curved to match the pelvic arch. The ground seat will also be narrower at the front, which allows the rider's legs to be close to the horse. The ground seat also has a slope. Starting at the handhold and curving towards the cantle, the slope determines where the rider will be positioned on the horse. The lowest point of the seat will be where the rider will sit, which greatly impacts his riding position. There are a great range of opinions on the proper saddle seat slope; some based on different activities, i.e. cutting, roping, and some on personal preference. Over the ground seat, the finished saddle seat is built from heavy leather. On the best saddles, a single large piece of leather is used to cover the seat, cantle, and front and seat jockeys. The seat size measures the distance from the base of the horn to the top middle edge of the cantle. It is expressed in half-inch increments and ranges from 12 inch to 17 inch.

### **The Straps**

Majority of leather items of saddlery are made of straps. The leather strips are cut into the respective widths and lengths for different parts of the assembled items like bridle. It has been explained with the help of photographs as follows: The straps are cut straight into different lengths of different width. By an impression creating machine by which an impression of straight line is created on the border of the finished side of the straight straps. This is an optional process used for decoration. To further decorate, stitching may be done in the impression made. By using a punching machine the holes are created for holding the buckle. The straps are coloured. For attaching buckle to the straps with force, the upper crest of the strap is removed. The metal parts, like buckles and rings, need to be tied with the straps. For the purpose of stitching an indigenous wooden clip is used. It is also used for stitching the curved surfaces and the buckles with the straps. The finishing touch is given after stitching. For adding decorative items like cut-glass on the head band, glue is pasted on the upper crest of the strap and the decorative items are placed on the glued places to make goods like Brow bands. Nowadays nylon straps are also used in place of leather straps. When the straps are assembled together in the above example, it gives the shape to bridles. The bridles using fur and nylon as the replacement medium to leather are also manufactured in Kanpur.

### **The Bridle Assembling**

All bridles have three basic parts: bit, reins and headstall. Mouthpieces vary from 4 to 6 inches in width. Most average-sized pleasure horses require about a 5-inch mouthpiece. A correctly fitting bit is wide enough to accommodate the horse's jaw with the sidepieces just touching the lips on each side. A bit that is correctly fitted does not pinch the corners

of the horse's mouth. The cheek pieces and shanks of curb and Pelham bits must also fit properly. Cheek pieces must lie along the horse's cheeks. Most English bridles and many Western bridles include a brow band. This strap goes around the front of the horse's forehead. The first step in assembling a bridle with a brow band is to put the brow band on the cheek pieces or crownpiece and slip it into its approximate final position. Western bridles may incorporate one or two ear loops instead of a brow band. The loops may be built in or slipped on. If they slip on, this is the time to attach them. If there are separate cheek pieces, they are attached to the bottom of the crownpiece. The bit is the most important part of the bridle. Attach the bit to the bottom of the cheek pieces. A regular, built-in noseband slips through slots on the cheek pieces.

A separate noseband has its own straps for attachment and is called a cavesson noseband. Its crownpiece goes under the crownpiece of the bit with the single cheek piece of the cavesson buckling on the left side. If the throatlatch is not a part of the headstall, it should be placed beneath all other pieces in the assembly. If a cavesson noseband is also used, the order from the inside to the outside should be throatlatch, cavesson, bridoon headstall (if used), and bit headstall. If curb-action bit is used, it is required to attach the curb chain or strap. Most English bridles require hooks and chains for attaching. Attach the hooks to the headstall rings with the open part to the outside. Then, attach the chain so it will lie flat across the bit with the center ring for the lip strap free on the bottom of the chain. Next, clamp the right hook tightly to the chain but leave the left one loose for easy unhooking. Most English bridles requiring curb chains also have lip straps. Attach the lip strap to the small loops on the shanks of the bit. Keep the short end of the buckle on the left shank and the long end on the right shank. Then, pass the long end through the curb chain ring and buckle the strap. Most Western bridles use leather or part leather and part chain curb straps instead of the flat English chain. Attach the curb strap to the special slots in the bit if they are provided. Do not fasten the strap to the snaffle ring of a Pelham bit. When there is no slot on a Western bit, attach the curb strap to the headstall rings. Most reins are readily installed either by lacing or buckling them to the bit loops. If there is a buckle in the centre of the reins, make certain that the end of the buckled rein points to the right side of the horse. A common way to attach Western reins without buckles is with two long cuts near the bridle ends, which serve as loops.

However, simpler methods are available. Many reins are simply snapped to the bit. Another innovation is called a Chicago screw. It is simply a screw with a fancy cover that is fastened through holes in the reins. English reins may be sewn directly to the bit. Many English and some Western bridles require a double set of reins in which the wider rein is attached to the snaffle and the narrower rein to the curb. If one rein is laced or braided, attach it to the snaffle. Attaching the reins to the bit is the last step in assembling a bridle. Fasten them with the outside of the leather or other material away from the horse. This bridle assembly process is an example only for a simple and basic bridle.

With time Kanpur Saddlery industry has completed a considerable journey from beginning with leather made saddler items to non-leather made saddlery items and horseback rider goods manufacturing. Since Kanpur is reputation for leather shoes, the orders for Horseback Rider Shoes came first. Then the local industry entered into other

goods made of non-leather like Outdoor Rugs for horse, Pad, Protection Boots, Bandages, Saddlery Accessories, Horseback Rider Jackets, Girth, Breeches, Half Chaps, Spurs and Jodhpur Riding Boots, Winter Clothing for the Horseback Rider and Safety Articles.

## **J) Uniqueness:**

Kanpur Saddlery Industry is highly labour intensive and most of the items made are artisans' work. An artisan develops skills on a particular process of a product manufacturing and masters the technique in long run by continuous practice of the process under the master craftsman. The uniqueness of Kanpur Harness and Saddlery exists is in its craftsmanship of the highest order. The products spectrum is covering over 300 (over 5000 products when horseback rider goods in all popular designs are included) and in each product takes the final shape by passing through many expert hands of artisans. An artisan who is an expert in a particular processing in the manufacturing/development of a product is novice for the other products. This makes this industry of high order skills concentration centric.

Tirthankar Roy in his book *Traditional Industry in the Economy of Colonial India* quoting *Report on Village Tanning* prepared by Gaitonde reveals that "the mocha could copy faithfully any pattern or shape of imported boots, shoes and other articles". This reveals the adaptability to the innovation, hold over the craft and practicing the same as if the originator of the same. The goodwill, reputation and know-how earned in over hundred years of existence are the sources of running the Kanpur saddlery industry successfully.

Kanpur is the only place in India where harness & saddlery goods are manufactured. Production volume wise Kanpur is the biggest harness & saddlery items manufacturer in the world. The uniqueness of Kanpur harness & saddlery industry lies in the capability of the industry in holding the product range at one end and increasing the size of the product range by including horseback rider goods without permitting any other place in the country to have harness & saddlery manufacturing units by sheer competitiveness.

The limbs size of each horse is unique and differs from one horse to the other. So size of the harness & saddler items is always order specific. The most of the orders come as export orders and come with their own specifications in respect to size. To run an industry in which each product is size wise a unique product is in itself the uniqueness of Kanpur harness & saddlery industry.

The next distinguishing feature of Kanpur harness & saddlery industry is existence of manufacturers, craftsmen and raw material, i.e. leather, at the same place. The vegetable tanned buffalo leather used in manufacturing harness & saddlery products is also manufactured in Kanpur. The sustaining and steady growing Kanpur harness & saddlery industry, which is 100 per cent export oriented, indicates the reputation and goodwill earned by the Kanpur harness & saddlery industry at the international level. Hence, it may be considered that the satisfactory execution of export orders at an international



competitive price has provided a unique place to Kanpur at the international map of being a good quality production of harness & saddlery goods place.

**K) Inspection Body:**

By an Office Memo of Export Promotion Bureau, Uttar Pradesh, an Inspection Body has been formed for the Kanpur Saddlery for securing the Geographical Indication Registration. The following shall be the members of the Inspection Body:

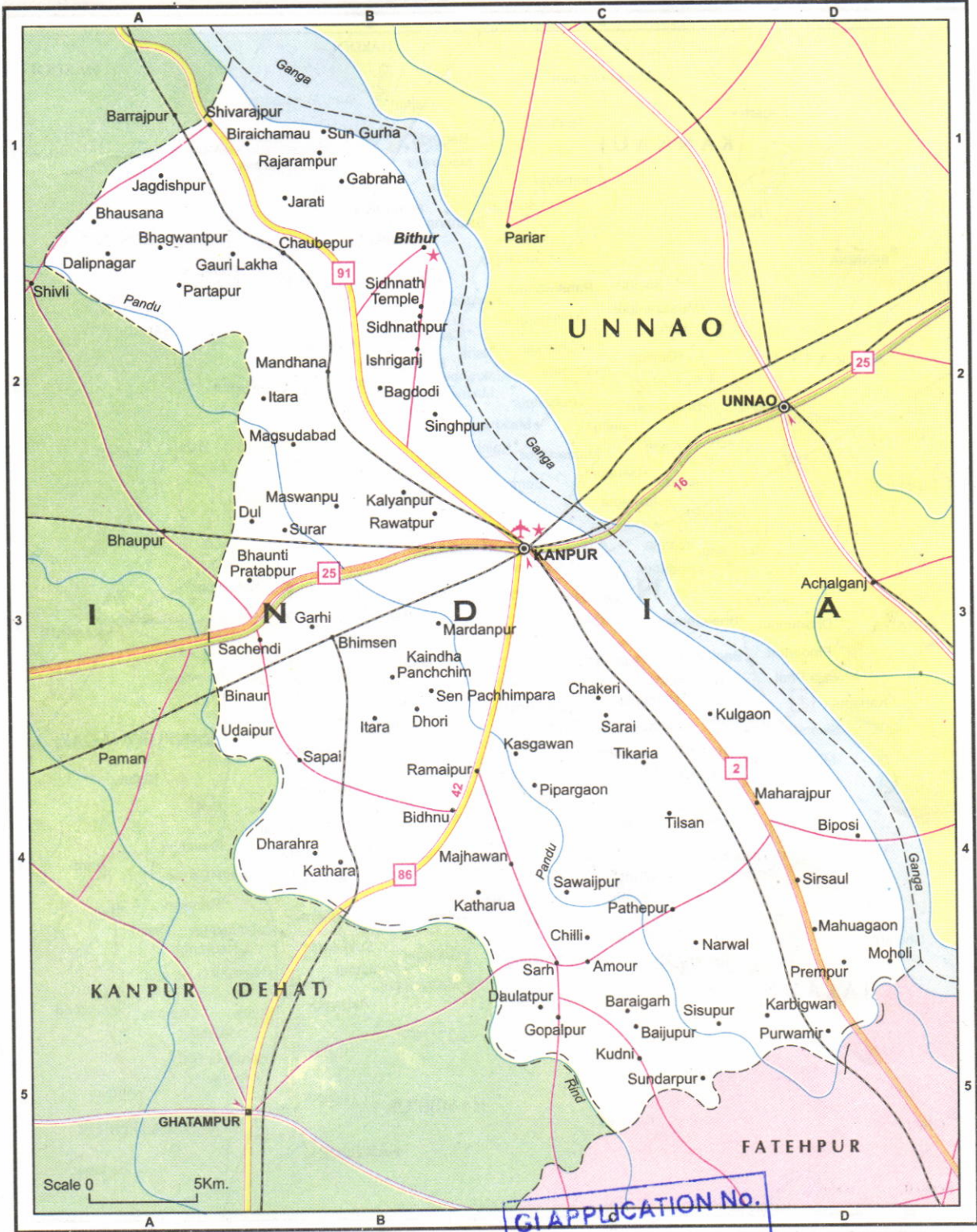
Technical Member nominated by the Government Leather Institute, Kanpur; Two local National/State Award winner expert craftsmen who would work in rotation of seniority for a year; and General Manager, District Industry Centre, Kanpur who shall work as a Convener.

The Inspection Body shall work under the coordination of Umbrella Organization for which Government Order 1273/18-4-2012-37 (Mis)/06 has been issued on July 2, 2012. The Export Promotion Bureau, U.P, shall be the Nodal Agency in this respect.

**L) Others:**

In Harness & Saddlery making Kanpur is self-sufficient in both materials and human resource. The input material, the experienced craftsmen and technical knowledge all resources are locally available.

It is worth noting that each horse is of its own size and horses do not have identical limbs size. Hence most of the harness & saddlery products size have a range in place of a fixed size. The size wise specification of harness & saddlery goods is not possible and perhaps this is the reason the entire industry is based on human hands. The data of buyer and the goods specifications are closely guarded secrets of the manufacturing units and therefore are not available. The product line is so huge that most of the manufacturing units are having expertise in a segment of the product range and deal exclusively in that particular segment. The most of the harness goods are manufactured either by using leather or nylon as the material. Kanpur manufactured vegetable tanned buffalo leather is used in making harness & saddlery goods. It is mainly a combination of excellent craftsmanship, competitive pricing/manufacturing cost, ability to make in bulk in time and reputation earned in a long time provide distinguishable characteristics to Kanpur harness & saddlery industry in the international market.



ATTESTED

*S.K.*

**S.K. VERMA**  
 (Adv. & NOTARY)  
 Lucknow, U.P., INDIA  
 Regd. No. 315/2000  
 29 JAN 2009



**ATTESTED**  
*S.K. Verma*  
**S.K. VERMA**  
 (Adv.)  
 Lucknow, U.P.  
 Regd. No. 31/51/2008  
**29 JAN 2009**

Advertised under Rule 41 (1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 54 dated 28<sup>th</sup> November 2013

**G.I. APPLICATION NUMBER – 161**

Application Date: 09-02-2009

Application 161 & 162 made by **Moradabad Handicrafts Exporters Association**, Jain Mandir Building Opp. Kotwali, Moradabad - 244001, Uttar Pradesh, India Facilitated by Export Commissioner, Uttar Pradesh Government, Export Promotion Bureau, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow - 226010, Uttar Pradesh, India for Registration in Part A of the Register of **Moradabad Metal Craft** are merged together to proceed as a single application as per the order of Registrar of Geographical Indications dated 18-08-2009 under Application No. 161 in respect of Common Metals and their Alloys, goods of common metals not included in other classes falling in Class – 6 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) **Name of the Applicant** : **Moradabad Handicrafts Exporters Association**
- B) **Address** : Moradabad Handicrafts Exporters Association,  
Jain Mandir Building Opp. Kotwali, Moradabad –  
244001, Uttar Pradesh, India
- Facilitated by Export Commissioner, Uttar Pradesh  
Government, Export Promotion Bureau, PICUP  
Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow –  
226010, Uttar Pradesh, India
- C) **Types of Goods** : **Class – 6 - Common Metals and their Alloys,**  
goods of common metals not included in other  
classes.

**D) Specification:**

The product spectrum of Moradabad Metal Craft is very wide. The metal(s) and alloys used, dimensions of the good, and designs on and of the metal craft all depend upon the specifications provided in the orders, especially export orders, received from buyers. The goods quality both in material terms and craftsmanship differ for the items manufactured for the open market keeping taste and pocket size of the target customers. However, the product spectrum can be segregated on the basis of techniques used, metal type and the product types.

Sand casting technique is used for giving shape to the goods. Electroplating technique is used for changing surface properties.

Electroplating is done on both utility and decorative items. The electroplating thickness increases from decorative items to the utility items. The electroplating thickness of

different precious metals varies between 1 micron and 15 micron; the multiple metals electroplating is also in practice. The electroplating thickness is directly proportional to the durability of the electroplating. The quality and standard of a metal item is tested by the purity of the metal(s) used. Mostly the items are made using the alloys and in alloys Brass with 60% copper and 40% Zinc is the main alloy. The inferior quality brass alloys also contains Nickel.

The chemical and physical properties specifications are as follows:

<b>Chemical Composition Of Brasses</b>			
<b>Material</b>	<b>Normal Composition</b>	<b>Nearest Relevant Composition Specification</b>	
		<b>BS : 2870</b>	<b>ISO</b>
<b>95/5 Cap Copper</b>	95% Cu, 5% Zn	CZ 125	Cu Zn 5
<b>90/10 Guilding Metal</b>	90% Cu, 10% Zn	CZ101	Cu Zn 10 426/1
<b>85/15 Guilding Metal</b>	85% Cu, 15% Zn.	CZ102	Cu Zn 15 426/1
<b>80/20 Brass</b>	80% Cu, 20% Zn.	CZ103	Cu Zn 20 426/1
<b>70/30 (Cartridge Brass)</b>	70% Cu, 30% Zn.	CZ106	Cu Zn 30 426/1
<b>65/35 (2 and 1 Brass)</b>	65% Cu, 35% Zn.	CZ107	Cu Zn 35 426/1
<b>63/37 (Common Brass)</b>	63% Cu, 37% Zn	CZ108	Cu Zn 37 426/1
#Material conforming to other National Specification e.g. ASTM, DIN etc. is also provided.			
#Available in Strips, Sheets, Plates & Circles form.			

<b>BRASS AND GUILDING METAL TYPICAL MECHANICAL PROPERTIES AS PER : B.S. : 2870</b>					
<b>Material</b>	<b>Temper</b>	<b>Tensile Strength N/mm<sup>2</sup></b>	<b>Elongation % on 50 mm G.L.</b>	<b>Vickers Hardness VPN</b>	<b>ISO</b>
<b>95/5 Cap Copper</b>	'O'			75 Max	
<b>90/10 Guilding Metal</b>	'O'	245 Min	35 Min	75 Max	Cu Zn 10
	1/2 H	310 Min	7 Min	95 Min	ISO :
	H	350 Min	3 Min	110 Min	426/1
<b>85/15 Guilding Metal</b>	'O'	245 Min	35 Min	75 Max	Cu Zn 15
	1/2 H	325 Min	7 Min	95 Min	ISO :
	H	370 Min	3 Min	110 Min	426/1
<b>80/20 Brass</b>	'O'	265 Min	40 Min	80 Max	Cu Zn 20
	1/2 H	340 Min	10 Min	95 Min	ISO :
	H	400 Min	5 Min	120 Min	426/1
<b>70/30</b>	'O'	280 Min	50 Min	80 Max	Cu Zn 30

<b>(Cartridge Brass)</b>	1/4 H	325 Min	35 Min	75 Min	ISO : 426/1
	1/2 H	350 Min	20 Min	100 Min	
	H	415 Min	5 Min	125 Min	
<b>65/35 Brass (2 and 1 Brass)</b>	'O'	280 Min	45 Min	80 Max	Cu Zn 35 ISO : 426/1
	1/4 H	340 Min	35 Min	75 Min	
	1/2 H	385 Min	20 Min	110 Min	
	H	460 Min	5 Min	135 Min	
	EH	525 Min		165 Min	
<b>63/37 Brass (Brass Metal)</b>	'O'	280 Min	40 Min	80 Max	Cu Zn 37 ISO : 426/1
	1/4 H	340 Min	30 Min	75 Min	
	1/2 H	385 Min	15 Min	110 Min	
	H	460 Min	5 Min	135 Min	
	EH	525 Min	-	165 Min	
	SH	660 Min	-	185 Min	
'O' Annealed Condition. 1/4H: Quarter Hard, 1/2H: Half Hard, H: Hard, EH: Extra Hard, SH: Spring Hard.					

Since most of the export is order based, the order comes with prescribed designs. The artisans are expert in executing all kinds of designs. However, on decorative items influence of Persian art can be noticed. The artisans use drawings from Mughal time monuments, animals used for riding like elephant and horse, narration of scenes like King travelling or hunting on the back of Horse or Elephant and flowers & natural vegetation. The colours are made using CHAPRA. The influence of red, blue, green, yellow and firazi colours can be noticed.

**E) Name of the Geographical Indication:**

**MORADABAD METAL CRAFT**



**F) Description of Goods:**

Moradabad is renowned for brass work and has carved a niche for itself in the handicraft industry throughout the world. The modern, attractive, and artistic brass ware, jewellery and trophies made by skilled artisans are the main crafts. With time new products were introduced time to time and now metals like iron, aluminium, nickel and silver are also used in metal handicraft items.

Till the decade of 1970s metal (brass or Kansa) utensils with engravings on them were made at Moradabad. The decade of 1980s brought decline in demand of engraved utensils and once again plain utensils came back in demand. The beginning of export in 1950s was by exporting brass trays for carrying *attar* (perfume) bottles and brass containers for carrying *Damdām* (Holy water of Mecca) on which *hajib* (prayers from Holy Quran) were engraved to the Arabian countries. Till 1990 mostly only brass ware were made at Moradabad. In 1991 iron items in handcraft items were introduced at Moradabad by a few innovative manufacturers and exporters. Items made of alloy of brass and iron and power coated items were introduced. Next year in 1992 aluminium items came in demand and Moradabad complied with the demand. Later on iron rusting handicraft items were introduced and appreciated by the world. Perhaps it is capability to read the demand of time in the international market by the manufacturers, constituent innovation for presenting new designs, new product lines and variation in texture in total gives the Moradabad capability to sustain and grow with time with its name as *Peetal Nagari*.

The attractive brass wares are exported to countries like USA, Britain, Canada, Germany and Middle East Asia. There are about 600 export units and 5000 industries in the district dealing with metal crafts. Moradabad exports goods worth Rs. 2200 crore every year. Recently other products like Iron Sheet Metal-wares, Aluminium Artworks and Electroplated artworks have also been included as per demand of the foreign Buyers. There are 5250 metal ware and metal craft small scale (SSI) units in Moradabad District. These units are generating revenue worth Rs 3600 crores. These units are providing direct employment to 26800 artisans and 22500 workers and artisans indirectly.

**G) Geographical Area of Production and Map as shown in page no. 53 :**

Moradabad [28° 51' N, 78° 49'E] is city is situated in western U.P. between 28°-21' to 28°-16' Latitude North and 78°- 4' to 79 Longitude East. Ram Ganga River flows in the north east and Ganga River is there in south west of the city.

**H) Proof of origin [Historical Records]:**

Moradabad metal craft industry is a cottage industry. It is very common to find small workshops running in the houses of artisans.

George Watt in his book *Indian Art at Delhi 1903* published by Motilal Banarsidass (ISBN 81-208-027-0) in 1903 (Reprinted in 1987) provides a vivid description of Delhi Exhibition held in December 1902 in the form of a catalogue. He writes that Moradabad is the original and to this day the chief centre of lac-coloured metal craft. He reports that from Moradabad several examples of a crafts have come belonging to the tinned, painted and Lac-coloured wares and Tinned metal (copper). There is also mention of a large settee made by Niaz Ullah of Moradabad who was awarded for his craft brought to the exhibition.

Tirthankar Roy in his book *Traditional Industry in the Economy of Colonial India* (ISBN 0 521 65012 7) published by Cambridge University Press (1999) writes that

brassware in this town (Moradabad) was an old industry, but the pre-seventeenth-century history is undistinguished. The later growth came through a combination of brass casting initially for firearms, engraving on coins, and an attempt to reproduce a zinc *hukka* made in Bidar. Groups of artisans' families, courtiers at Delhi, and their patrons are credited with the development of these skills here. In the eighteenth century, Moradabad traded with, and probably received engraving designs from, Persia, Turkey, and Egypt. However, the most spectacular period of growth began in the late nineteenth century as, within a few decades, two crucial railways intersected here, the East Indian towards Calcutta and Aligarh, and the Avadh-Tirhut with an access to the hills. With the railways came not only easier transport, but also go downs and storage space. For the bulk-intensive industry this was important. An essay in the 1885 issue of the *Journal of Indian Art* mentions that lacquerware in the town saw 'great strides during the last few years', resulting in expansion and diversification into 'an infinite variety of articles both for ornaments and for utility'. This was an effect of a widening long-distance trade. In 1945, railway returns show that Moradabad wares went to 226 towns, no one destination being dominant, spread all over the north from Karachi to Calcutta. In 1924, the town had 7-8,000 full-time brass workers, in 1945 and 1960 about 10,000 and in the late 1970's 13,500.

The official website of Moradabad District says that present Moradabad city was established as the head office of Chaupala Pargana during Emperor AKbar's regime. In 1624, Rustom Khan, the governor of Sambhal, captured it and set up a fort at this place and named it as Rustom Nagar. Later on it was named as Moradabad after the name of Shahjahan's son Murad Bux and this name still persists. Physical development of the city was started after the construction of Jama Masjid by Rustom Khan in 1632.

The senior members of the metal industry say that Mughals brought *Kansa* (an alloy of copper, zinc and tin) kitchen utensils (*Bartan-Bhanda*) from Iran, Turkey and Egypt to India. Some of the migrants who brought the utensils to India settled in Moradabad. They started manufacturing these utensils at Moradabad. There were no designs (engravings) on such utensils. Gradually the infusion of Iranian craftsmanship was reflected in Moradabad made metal utensils in the form of engravings on the utensils. Till the decade of 1970s metal (brass or *Kansa*) utensils with engravings on them were made at Moradabad. The decade of 1980s brought decline in demand of engraved utensils and once again plane utensils came back in demand.

The metal craft of Moradabad is based on casting technology. Haji Kallan was the first exporter of metal ware from Moradabad in the decade of 1950s. The beginning of export was by exporting brass trays for carrying *attar* (perfume) bottles and brass containers for carrying *Damdham* (Holy water of Mecca) on which *hajib* (prayers from Holy Quran) were engraved to the Arabian countries. Till 1990 mostly only brass ware were made at Moradabad. In 1991 iron items in handcraft items were introduced at Moradabad by a few innovative manufacturers and exporters. Items made of alloy of brass and iron and power coated items were introduced. Next year in 1992 aluminum items came in demand and Moradabad complied with the demand. Later on iron rusting handicraft items were introduced and appreciated by the world.



The Export Promotion Bureau (EPB) in a letter certifies the existence in working condition of registered 5250 (five thousand two hundred and fifty) small scale metal craft units at Moradabad. The annual production of registered metal craft units is around Rs 3800 (Three Thousand and Eight Hundred) crore. The work force directly engaged in the production of metal crafts at registered units is around 2.80 (two lakhs and eighty thousand) Lakh. The Moradabad metal craft is exported around the world and UK, US, Canada and Gulf Countries are the main countries where the exported metal crafts assignments are sent. The letter of the EPB is supported by five industry registration certificates of Moradabad metal craft units which are existing for a long time.

#### **I) Method of production:**

Sand based metal casting process is used in making metal handicraft items. The sand mold casted goods are produced by forming a mold cavity from a sand mixture and pouring molten liquid metal into the cavity in the mold. The mold is then cooled until the metal has solidified and then separated from the mold.

The casting process is conducted in a container which is known as flask or molding box. It is a tool used to contain a mold covered with sand mixture in metal casting. The flask can be any size so long as it is bigger than the pattern being used to make the sand mold. Flasks are commonly made of steel, aluminum or even wood. A simple flask has two parts, the cope (upper part) and the drag (lower part). In casting, a sprue is the passage through which a molten metal alloy is introduced into the mold cavity. The uniqueness of the flask used in Moradabad is its side sprue.

The mold is known as pattern as it carry the replica of what is to be made by casting. The pattern designing is done using Computer based designing software like Computer-aided design (CAD). A slightly over-sized master pattern is made of wood, wax, metal, plastic or other material. Both the Computer-aided Machine (CAM) manufacturing and the manual manufacturing of pattern are common in Moradabad. From the master pattern, patterns are made. The Moradabad metal industry generally uses wooden patterns. The pattern needs to incorporate suitable allowances for shrinkage which is known as contraction allowances. The exact value of contraction allowance depends on the alloy being cast.

The use of sand mixture in sand casting is known as binder. The impression of pattern is taken over the binding metal or alloy. The binder is made using Ram Ganga sand (80% to 95%), black clay (2% to 4%), mustered oil (5%) and molasses (2% to 10%) for sand casting. Sand is used as a refractive material in sand moulding system. Fine sand of Ram Ganga has proved very good for the sand casting. Molasses is used as a binding material. In the sand casting procedure, first, the mold is placed on a board. Sand binder material is sifted over the pattern until the model is covered by a few inches of sand and the outer circumference of the same is covered by a round metal ring. It is reversed and put into the molding box (cope) and covered with the binder sand and pressed. This process creates an impression on the binder material filled in the mold. This creates the upper portion of the sand mold. Similarly the lower mold (drag) is prepared by making the impression on

the sand binder material. The upper half of the mold (cope) is placed over the lower half of the mold (drag). Both carry their respective mold impression on the sand binder material. The mold after the integration of the both halves (cope and drag) looks like as shown in the. The bowl like opening, known as sprue, is the inlet for the molten metal to be poured inside the mold and to fill-up the space (cavity) created by the mold impression. The metal of which the desired sand casted good is to be made is melted and poured in the mold box through sprue. The mold box is left in open for cooling down and providing time for the molten metal poured in to solidify and take the desired shape. The mold box is opened and the binding material is removed to secure the good prepared by sand casting technique.

The granules appear on the surface of casted goods and the surface use to rough. The requirement for making the surface of the good is fulfilled by scratching the surface by an edge tool with flat steel blade with a cutting edge known as chiseling tool. The good is fixed in the jaws of the wooden mold at an edge of the turning machine and then the rotating surface of the casted good is scratched by the pointed side of the chiseling tool. In the chiselling process the upper crest of the surface, at which the process is applied, gets peeled-off and unwanted material gets removed. This makes the surface of the good smooth and bright. The turning machine and chiselling tool are also used for giving curves and threading in goods to achieve the desired texture in the surface of the goods. The Grinding or Buffing machine is used for polishing the surface of the finished goods. The items which do not require colouring are sent for the silica polishing. Else after colouring the goods, if required, the goods are finally polished. The finished goods, after periodic checks at each stage for the quality, go for the packaging.

The colouring on the goods is done for many purposes and different techniques. First and the foremost, there are goods on which some kind of carving (especially hand carving) has been done. It may be the carving on a metal sheet and then the metal sheet is given a shape or a casted good on the surface of which carving is done. After the carving, the carved portion of the good is coloured. For colouring, it is dipped into a container filled with hot colour for some time. This process provides colours the surface of the dipped goods and then heating process is applied to the goods to fix the colour. The process of powder coating is also in practice.

The method for colouring the goods is using electroplating technique. Electroplating is a process of using electrical current to reduce cations of a desired material from a solution and coat a conductive object with a thin layer of the material, such as a metal. Electroplating is primarily used for depositing a layer of material on an object. The process used in electroplating is called electro-deposition. The part to be plated is the cathode of the circuit. The anode is made of the metal to be plated on the part. Both components are immersed in a solution called an electrolyte containing one or more dissolved metal salts as well as other ions that permit the flow of electricity. A rectifier supplies a direct current to the anode oxidizing the metal molecules that comprise it and allowing them to dissolve in the solution. At the cathode, the dissolved metal ions in the electrolyte solution are reduced at the interface between the solution and the cathode such that they plate out onto the cathode. The rate at which the anode is dissolved is equal to

the rate at which the cathode is plated, vis-à-vis the current flowing through the circuit. In this manner, the ions in the electrolyte bath are continuously replenished by the anode. This process is generally used for placing a thin coating of nickel, copper and silver. For an example a handicraft made of aluminium is electroplated and a thin layer of copper is coated on it.

Antique finish metal handicrafts are also in great demand which is done by paint and plating. The antique finish is also given by different process and in one such process the goods are coloured before giving the antique look. The metal sheets are cut into different shapes and then these pieces are either pressed to make a doll on a double action and then spin to give a shape with the help of a die. The left over scrap after cutting the metal sheets is recycled.

Moradabad metal craft industry makes the metal alloys, especially brass, bricks and sheets. The raw material is melted in furnace and the molten metal is poured into the bricks mold boxes as shown in. On cooling, the molten metal gets solidifies and metal bricks get made. Both the hot and cold pressing machines are used to press the metal bricks to give them metal sheets shape of the desired width. Unique items like brass made light lamp covers for ship are also made in Moradabad purely due to excellent craftsmanship and superb knowledge of metal craft.

Although brass is an alloy of Copper (60%) and Zinc (40%). However, the copper to zinc ratio may differ to give different properties to the brass produced by melting them together. Moradabad based metal crafts industry makes metal brick shaped bars by pouring in melted brass (mixture of copper with zinc). Brass has higher malleability than copper or zinc. The relatively low melting point of brass (900 to 940°C, depending on composition) and its flow characteristics make it a relatively easy material to cast. By varying the proportions of copper and zinc, the properties of the brass can be changed, allowing hard and soft brass making.

#### **J) Uniqueness:**

The uniqueness lies in many factors of which weight of the goods is the major one. The goods manufactured at Moradabad have lighter weight in comparison to the metal goods manufactured elsewhere. The light weight is achieved by peeling of the extra metal from inner side of the good. The goods are finished from the inner sider too which does not get visible.

The special characteristics of Moradabad metal craft are intangible in nature. It is goodwill and reputation earned by Moradabad metal craft industry which makes the major part of its special characteristics. The existence of more than five thousand metal crafts units, annual revenue of over three thousand and six hundred crores of which two thousand and two hundred crores comes from exports and gainful employment to twenty six thousand and eight hundred skilled artisans and craftsmen in totality speaks of goodwill and reputation earned by Moradabad metal craft in a span of over three centuries. In addition, the existence of centuries old metal craft confined to Moradabad

further makes it clear that it is not the product portfolio, which keep floating and changing on market demand, but the association of the products to Moradabad is more important in the open market place. Another intangible character of Moradabad Metal Craft is knowledge of Metal Craft. The metal craft industry artisans are mostly semi-literate people who have learned, rather mastered, the metal craft in the real life scenario. The knowledge of small tricks is transmitting orally from one generation to the other in the Moradabad Metal Craft. The only tangible characteristic of Moradabad Metal Craft is Ram Ganga sand which is used in casting. The artisans claim that the sand at the river banks in Moradabad district is very fine and is very helpful in metal casting process.

The goodwill and reputation earned in long run is the fuel responsible for propelling the engine of metal ware handicraft centric economy of Moradabad.

**K) Inspection Body:**

By an Office Memo of Export Promotion Bureau, Uttar Pradesh, an Inspection Body has been formed for the Moradabad Metal Craft for securing the Geographical Indication Registration. The following shall be the members of the Inspection Body:

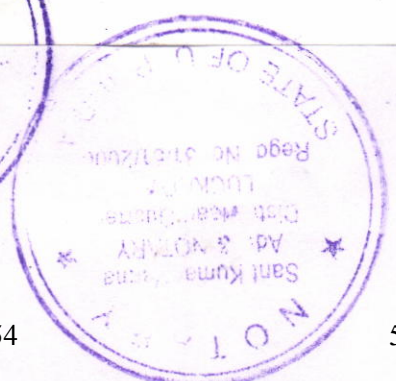
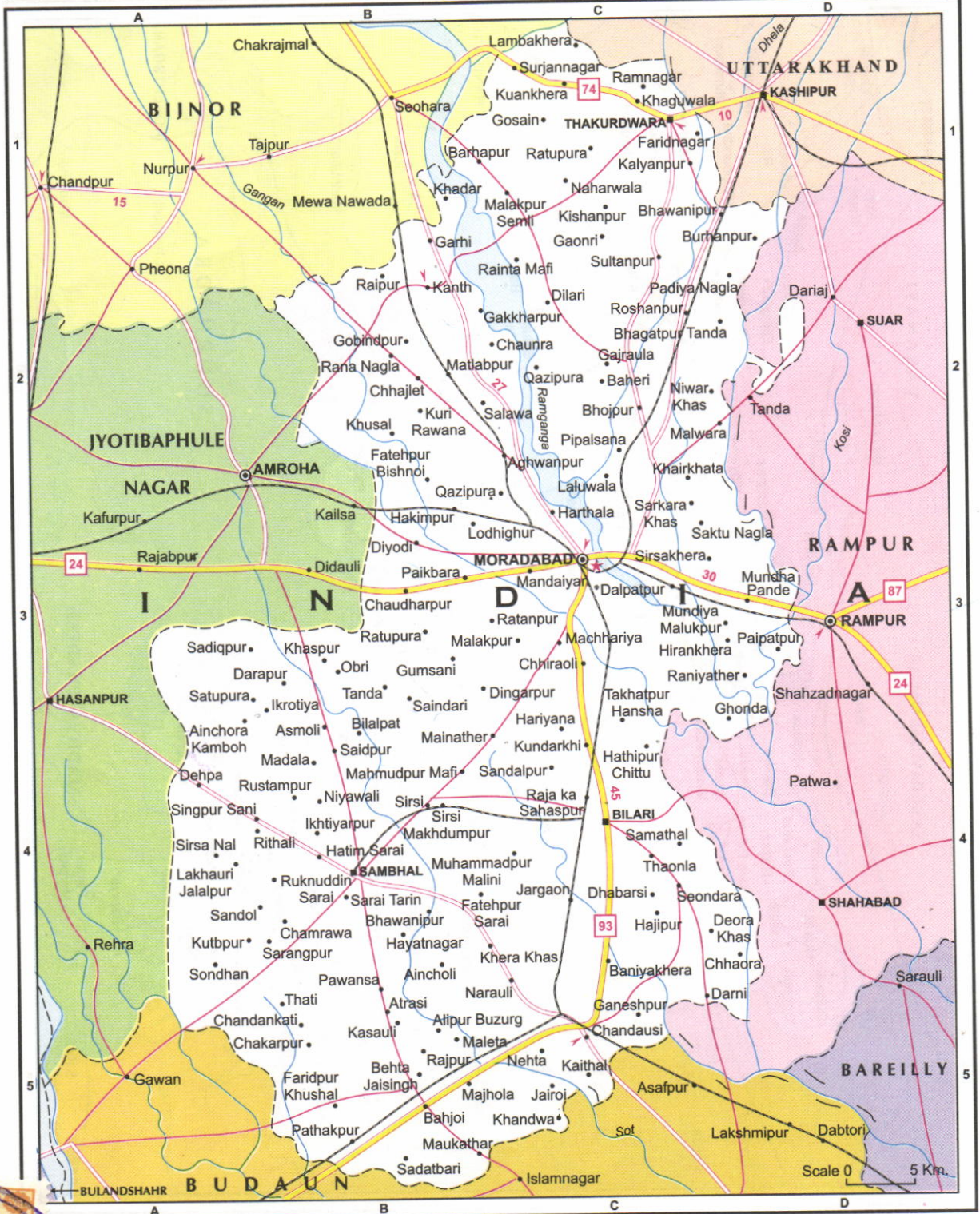
Technical Member nominated by the Technical Head, Research, Testing and Calibration (RTC) Laboratory, Moradabad; Two local National/State Award winner expert craftsmen who would work in rotation of seniority for a year; and General Manager, District Industry Centre, Moradabad who shall work as a Convener.

The Inspection Body shall work under the coordination of Umbrella Organization for which Government Order 1273/18-4-2012-37 (Mis)/06 has been issued on July 2, 2012. The Export Promotion Bureau, U.P, shall be the Nodal Agency in this respect.

**L) Other:**

The Moradabad metal ware spectrum is very lengthy and wide as the customers' base. The metal ware handicrafts for all kind of customers are made and hence quality of the goods may differ.

MORADABAD



**ATTESTED**

*S.K.*

**S.K. VERMA**  
 (Adv. & Notary)  
 Lucknow U.P., INDIA  
 Regd. No 31/5/2000  
 31/11/2013

Advertised under Rule 41 (1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 54 dated 28<sup>th</sup> November 2013

**G.I. APPLICATION NUMBER – 184**

Application Date: 17-08-2009

Application is made by **Wood Craft Design and Development Society**, Industrial Estate, Near District Industries Centre, Delhi Road, Saharanpur-247001, Uttar Pradesh, India, Facilitated by Export Commissioner, Uttar Pradesh Government, Export Promotion Bureau, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow - 226010, Uttar Pradesh, India and Handicraft Welfare Society, Sabri Bagh, Sabri Masjid, Saharanpur-247001, Uttar Pradesh, India under Application No: 184 in respect of Furniture, Picture Frames, Goods (not included in other classes) of wood, Bottle Casing of wood, Bottle Racks, Wood Brackets, Wood Cabinet, Wood Cases, Coat Hangers, Coat Hooks, Stands, Containers/Boxes, Cupboards, Dinner Wagons, Dressing Tables, Bed, Tables, Chairs, Sofa Sets, Easy Chairs, Embroidery Frames, Flower Stands, Foot Stools, Side Tables, Non-metal Identity Plates, Letter Box not of metal or masonry, Magazine, Moulding for Picture Frames, Picture Frame Brackets, Racks, Statues of wood, Table Tops, Tea Carts, Wooden Tea Trolleys, Wooden Trolleys, Trays not of metal, Trolleys for Computers, Computer Furniture, Typing Stand, Umbrella Stand, Wine (Casks of wood for decanting), Writing Desks, reed, Cane, Wicker and substitutes of all these materials falling in Class –20 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

**A) Name of the Applicant : Wood Craft Design and Development Society**

**B) Address :** Industrial Estate, Near District Industries Centre, Delhi Road, Saharanpur-247001, Uttar Pradesh, India

Facilitated by **Export Commissioner, Uttar Pradesh Government**, Export Promotion Bureau, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow – 226010, Uttar Pradesh, India and **Handicraft Welfare Society**, Sabri Bagh, Sabri Masjid, Saharanpur-247001, Uttar Pradesh, India

**C) Types of Goods :** **Class – 20** Furniture, Picture Frames, Goods (not included in other classes) of wood, Bottle Casing of wood, Bottle Racks, Wood Brackets, Wood Cabinet, Wood Cases, Coat Hangers, Coat Hooks, Stands, Containers/Boxes, Cupboards, Dinner Wagons, Dressing Tables, Bed, Tables, Chairs, Sofa Sets, Easy Chairs, Embroidery Frames, Flower Stands, Foot Stools, Side Tables, Non-metal Identity Plates, Letter Box not of metal or masonry, Magazine, Moulding for Picture Frames, Picture

Frame Brackets, Racks, Statues of wood, Table Tops, Tea Carts, Wooden Tea Trolleys, Wooden Trolleys, Trays not of metal, Trolleys for Computers, Computer Furniture, Typing Stand, Umbrella Stand, Wine (Casks of wood for decanting), Writing Desks, reed, Cane, Wicker and substitutes of all these materials.

**D) Specification:**

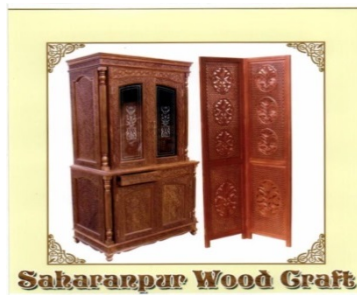
Seasoned timber after treatment is used in wood craft. Since it is handicraft work, the specifications are limited to the physical properties of timber. Seasoned timber should contain less than 15% moisture content. Hardwood is used for woodcraft the density of which ranges between 450 and 1250 Kg/meter<sup>3</sup>. Chromated Copper Arsenate (CCA) treated wood should have retention value of 0.25 lbs/feet<sup>3</sup> or 4 Kg/Meter<sup>3</sup>.

Sheasam, Mango and Rosewood timber is used for wood carving at Saharanpur. The wood is sourced from the adjacent areas.

Grapes and grape leaves and grape vines are the most prominent designs. The motifs of leaves, trees, fruits, ornamental and geometrical designs taken from the various artefacts like monuments build during Saltant and Mughal ages are found engraved or carved on wood.

**E) Name of the Geographical Indication:**

**Saharanpur Wood Craft**



**F) Description of Goods:**

The Saharanpur Wood Carving industry started from art work of comb and gradually developed the portfolio of the carved wood goods like photo frame, glass mirror frame, candle stand, jewellery box, pen jar, tray, letter rack, wall panel, Metal Filling wood goods, brackets carved furniture, sofa sets, bed, cupboard, toys, swing, multipurpose boxes, chairs, Side Tables with drawers, dressing table, tables, corners, Wine/Beer Bottle Cane, Wine Box, wooden partition, Wood Filled Paintings, Fruit tray etc.

At present there are 790 woodcarving small scale industries (SSI) in the Saharanpur district. These SSI units are generating annual revenue of Rs 382 Crore and exports of Rs 308 crore. The Saharanpur woodcraft goods are mainly exported to USA, France, Spain, Italy, Belgium, Holland, UAE, Saudi Arabia. The Woodcraft industry of Saharanpur is providing direct employment to 4810 artisans and 3200 workers & artisans indirectly.

A report 'Diagnostic Study Report of Woodcarving Cluster Saharanpur' developed by the Wood Craft Design & Development Society, Saharanpur says that there are approximately 52 small and approximately 7000 micro units of Wood Carving in Saharanpur which provide employment to 90,000 people and generate turnover of 1000 crore of which 250 crores comes from the domestic consumption and rest from exports.

The motifs in Saharanpur wood crafts are taken from nature and in this attempt natural flora is used. Graphs with leaves is the most common design. The nature also includes human, animals and other natural scenes that are also reflected in the Saharanpur wood craft. The motifs of leaves, trees, fruits, ornamental and geometrical designs taken from the various artefacts like monuments build during Saltant and Mughal ages are found engraved or carved on wood.

**G) Geographical Area of Production and Map as shown in page no. 62 :**

The wood carving units are mainly located in the urban areas of Saharanpur town and have dense pockets at Mandi Samiti Road, Industrial Area Delhi Road, Ali Ki Chungi, Menhadi Sarai, Azad Colony, Nadeem Colony, Chilkana Road, Gotesah, Khata Khedi, Sabri Ka Bagh, Kamela Colony, Ganpat Sarai etc. The most of the industries are located within the range of 15 Kms area of Saharanpur town.

Saharanpur is a district head quarter in Uttar Pradesh. The district is in a rectangular shape and it lies between 29° 34' 45" and 30° 21' 30" north latitude and 77° 09' and 78° 14' 45" East longitude. Its total area is 3860 square Kilometer's.

**H) Proof of Origin [Historical Records]:**

The Saharanpur wood craft is mentioned in the *Indian Art at Delhi 1903* written by George Watt published by Motilal Banarsidass [ISBN No: 81-208-0278-0], which is a Catalogue and Guide to the Indian Art Exhibition held at Delhi 'to coincide with the Delhi Darbar of 1902-03'. The book says that *wood-work constitutes a by no means unimportant aspect of the architecture of these provinces. It is carved, painted or inlaid and the timbers mostly employed are Shisham and Sal. For furniture and other ornamental purposes, the woods are Shisham, Ebony, Neem and white-wood (dudhi). The chief centres (in alphabetical sequence) are Aligarh, Azamgarh, Bareilly, Bijnor (Nagina), Budaun, Bulandshahar, Farukhabad, Ghazipur, Lucknow, Mainpuri, Muttra, Saharanpur etc.*

*Against the eastern wall of the main Gallery of the Exhibition there will be found a good example of a door (Plate No. 23) made in this style at Saharanpur by Surja Mistri. It was*



*prepared for the Lucknow Museum but has been sent on loan by the Institution to Delhi. In the Calcutta Museum there is an even finer example which was procured from Saharanpur some 20 years ago.*

*Saharanpur use to enjoy a great reputation in the manufacture, in vine pattern, of carved caskets, bread plates, trays, salad knives and forks, picture frames and the like, done in the soft White-wood known as dudhi, but though this still survives it has given place to the modern whole sell traffic in the production of vulgar and commonplace brackets, folding octagonal tables, etc., in red tun and mulberry woods, cut by machine fret-saw and exported to Europe and America by the thousand, and there accepted apparently as typical examples of Indian wood-carving. This new traffic has very nearly killed the beautiful Shisham wood-carving of Saharanpur and of one or two other neighbouring towns. As illustrative of the modern trade, however, one or two of the best examples of fret-saw work in 'cigar-box wood' (as is popularly described) will be found against the south wall of the Main Gallery. These are exhibited by Aziz Din, price for over mantel Rs 100, for the screen Rs. 75. Should replica of the Saharanpur Door be described these could be obtained to order for about Rs 1000 but could not be turned out in less than a year for each door.*

The world famous wood carving industry of Saharanpur is estimated to be 350 years old. It is said that some artisans came from Multan and started wood work at Saharanpur.

The only authentic local history book, *Saharanpur Sandarbh*, declares that wood carving industry was established in Saharanpur in the year 1857 by Mohd Attar Hussain, a carpenter, from Multan. The book confirms that by the beginning of the twentieth century the wood carving industry was completely established in Saharanpur. Further the book informs that the wood carving handicraft of Saharanpur district is very popular in the country and in foreign countries. At the time of writing of the book in September 1986 there were 165 wood carving handicraft units of which 36 units were exporting their goods. This book contains an exclusive chapter on Saharanpur Wood Carving which was written by Dr Kulbhushan Sahani.

The presence of Saharanpur Wood Craft goods in the exhibition in 1902-03, mention of Saharanpur wood craft in Saharanpur Sandharbh which also mentions that wood craft industry was established in Saharanpur in the year 1857 and current existence of 790 wood craft SSI establish that Saharanpur Wood Craft industry is over a century old.

#### **I) Method of Production:**

The woodcraft can be classified into three processes, i.e. seasoning of timer, chemical treatment of timber and woodcarving.

##### **Timber Seasoning**

Wood craft depends on the timber and before making wooden articles timber needs to be seasoned. Seasoning is the process of drying timber to remove the bound moisture contained in walls of the wood cells to produce seasoned timber. The seasoning of timber

begins with sawing the timber logs. When the timber is cut, the initial reduction in moisture content is a result of free water loss. This usually occurs without any significant dimensional changes to the timber. The cut timber logs are left in open to get dry.

After all of the free water has been lost, the timber is still classed as unseasoned as its moisture content is above 25%. Further drying is required to bring the moisture content below 15% so that it can be classed as seasoned. This additional reduction in moisture content, below fibre saturation point, causes the timber to shrink in size. This is done with the help of seasoning kiln. The Kiln seasoning accelerates the process of seasoning by using external energy to drive the moisture out. The timber is stacked in the same way as it is for air drying, and is placed inside a chamber in which the conditions can be varied to give best seasoning results. Air is circulated around the stacked timber and the temperature and humidity can be varied to give optimum drying. Each species has different cell characteristics and therefore requires different drying schedules. Typically the timber may be in the kiln for a period of between two days and one week. Then the timber is placed in the reconditioning chamber which introduces steam for a period and puts some moisture back into the outer cells and removes the effect of seasoning collapse.

The timber seasoning experts suggest stacking the timber so that plenty of air can circulate around each piece. The timber is stacked with wide spaces between each piece horizontally, and with strips of wood between each layer ensuring that there is a vertical separation too. Air can then circulate around and through the stack, to slowly remove moisture. In some cases, weights can be placed on top of the stacks to prevent warping of the timber as it dries.

Dry wood is stronger than wet wood. The timber drying process increases dimensional stability, reduces or eliminates attack by decay or stain, reduces the weight of the timber and increases the strength of the timber.

### **Chemical Treatment of Wood**

When wooden articles are used in contact with ground or exposed to high moisture conditions they may be subjected to biological or insecticidal deterioration. The purpose of the chemical treatment of wood is to minimize the deterioration of wooden articles. The technique used for this purpose is known as Pressure Treatment in which preservative chemicals are forced deep into the cellular structure of the wood. The chemicals act as a barrier between the wood and the deterioration agents. To initiate this process the wood is placed in a horizontal cylinder up to 150 feet long and up to 7 feet in diameter. Full-Cell and Empty-Cell are the two processes used in the Pressure Treatment of which the Full-Cell technique is older and widely used. In the Full-Cell technique begins with an initial vacuum to evacuate air from the cylinder. Then the cylinder is filled with preservative chemicals and pressure is increased to 150 psi for several hours. After that the preservative chemical is drained and vacuum is applied to clean the excessive chemical left on the surface of the wood.

The oil-borne and the water-borne preservative chemicals are used in the Chemical treatment as explained above. An oil based preservative, Pentachlorophenol (PF) is widely used for treating wood to be used for commercial interior applications. Arsenic

and Copper based preservatives, such as Ammonium Copper Zinc Arsenate (ACZA), Ammoniacal Copper Arsenate (ACA), Chromated Copper Arsenate (CCA) and Copper Naphthenate are water-borne preservatives are widely used in the wood processing industry.

### **Woodcarving**

In the woodcraft industry for a long time only hand tools were used, with time sophisticated automatic machines running on electric energy get introduced and are used mostly by the exporters. From sawing to polishing the carved wood, the most of the jobs are performed using one or another machine. Pillar Drill Machine, Buffing Machine, Plank Cutting Machine, Rotatory Belt Grinder, Plainer Machine, Die Press Machine, Wood Dust Collector Machine, Wood Lathe Machine with Face Plate, Double Auto Mould Machine, Slotting Machine, Wood Grinder Machine and Slotting Machine, Circular Drill cum Slotting Machine, Circular Cutting Machine and Sawing Machine, Wooden Lathe machine, Press Machine, Wood Sharper Machine are Fretsaw Machine are the main machines on which modern woodcraft industry of Saharanpur depends for carving wooden items. These modern machines are mostly confined to the export houses.

The original wood carving craft was much more dependent on hand tools like hammer, chisel, *Fulki*, *Tahaki*, *Chorsi* etc. The initial phase was devoted to carve grapes and its leaves on wood. Different shapes of grapes, five angular grape leaves and grape plants were carved on wood. With time the fashion of engraved wood work came. It was followed by engraving and chiselling to give designs to the wood. Then the time of ivory filled in the engraved designs came. This spread to different kind of filling materials like silver, brass and even colourful plastic. Innovation gave birth to brass overlaid crafting on wood. In this craft brass cut pieces in the desired shapes were pasted on the wood goods. Animal miniatures of horse, camel, elephant, lion, and Deer proved big hit in the market in brass engraving work on wood. Between 1965 and 1970 the influence of Kashmiri craft was reflected in the form of *Chinar* tree leaves in engravings. The decade of 1970 brought engraved paintings which were made with the help of *fulki* and *tahki*. These engraved designs became famous as an alternative of paintings. Meanwhile between 1975 and 1980 geometrical patters in different wood colours became famous. In this style wood pieces of different colour wood were cut in geometric designs and then they were pasted together in a geometric pattern. This artwork in the present time is winning admiration of the buyers in the shape of paintings with the help of pasting coloured wood pieces in the shape of a portrait or painting. The decade of 1980s brought change in the timber itself. This time teak wood replaced *Seesham* and mango wood also came into picture. This introduction brought different kind of boxes to furniture which was having engraved designs on its wood.

After carving the wood goods the next process is of polishing the goods. Earlier coal powder was used to bring brightness on the wood items, later wax polish with the help of brush was adopted which is still the mode of finishing and polishing the wooden goods. With the advancement of technology Buff Polishing also came into existence which is mainly used on small items like boxes, trays and pen holders.

Saharanpur made wooden partitions are very famous. The partitions are mostly made into three and five pieces. There are two main portions in a partition, the outer frame and the artistic chiselled central portion. The chiselled central portion is nowadays made of medium density fibre (MDF). This alternative of wood is very easy for chiselling work. Its uniformly hard surface is easy to chisel and there is no need to process it like the timber. The frame and the central portions are joined to give them a combined shape of a partition panel. To give them dark shade, the outer layer is burned with the help of the burner flames. The burned panel is then rub to remove the carbon from the surface and then it is wax polished with the help of brush to give it finish and shine. After wax polish, spirit polish is done to give the final touch to the partitions.

There are a few processes where are common features in almost all the wood carvings. A few of them have been explained as follows:

The wood is cut into the desired size as per the requirement of the article. Then the surface of the cut wood is made plane and smooth with the help of wood lathe machine. Grooves are made in the smoothened wood pieces at the desired points with the help of wood slotting machine. The wood pieces are added together to give shape to the objects. Then to further smoothening the surface and to fill and cut or depressing holes on the surface, a paste of gum object like Gum/Fevicol, wood colour and wood powder is put on the surface of the objects. In case antique dark look is to be given to the objects/articles, the articles are placed before burner flames. To polish the surface of the cut pieces it is then rubbed with the help of buffing machines. The holes are made with the help of Slotting Machine. The holes are made not just for the purpose of placing screw or nail into it but also for further cutting the wood in a curve. The first step for wood carving is to draw a drawing on paper and then for multiple marking of the same on wood the same is marked on metal sheet and cut according to the design. Then these metal cut design sheets are used for marking the design by colours on the wood/MDF. Then the design marked wood is sent for making a hole in each design for which needle is to be reinserted. The holes are made with the help of a drilling machine. Then the needle of the circular saw machine is placed inside the hole made with the help of the drilling machine. In the blue drawing print on the MDF is cut (the blue shaded portion is to be removed) with the help of the needle of the machine. The process of passing through the needle in each blue marked design is to be cut as done previously to make a see through design on the MDF sheet. This is how see through carved portions are crafted. The machine has only removed the portion which was not required, still carve shape is required to be given to the remaining portion. This is known as chiselling process. The artisans use hand held tools to chisel the wood/MDF to curve out the desired design. It is not just central portion of the wood partitions, but other kinds of articles are also carved out using chiselling process. The chiselling work is also done for making engraved designs which are not see-through.

The metal overlaid on wood is also carved on with hand tools. First drawing is made on the metal sheets which are pasted or struck with the help of nails to the wood. Then with the help of the hammer and chisel the desired designs are carved on it. It is not just one

side (engraved) carving is done on metal surface. The see through carving is also done on metal sheets to make beautiful designs to be pasted/struck on the articles outer surface. The metal filled in the engraved designs articles are also made in Saharanpur. For this first the design is engraved on the surface of the wood. Then, metal sheet is cut into small pieces as per the design requirement. The metal cut pieces are either filled in or pasted in the engraved design. The surface is made smoothen/levelled to fill-up any difference between the metal surface and the wood surface.

**J) Uniqueness:**

There are two kinds of wood carved goods manufacturing at Saharanpur. Saharanpur, Srinagar (J&K) and Mysore are the prime centers of wood craft in India. Srinagar is known for its geometric designs and motifs on wood. The Mysore crafts is related to depiction of human and animals in motifs and designs. The Mysore wood designs are not as broad as Saharanpur designs. The fusion of geometric and animals may be find in Saharanpur craft but with flora and nature. New designs and new product lines are mostly for the international market and repetition of the famous generic designs/goods for both the international and domestic markets. It is goodwill and reputation earned by the Saharanpur in wood craft that brings business to Saharanpur and makes the goods made in Saharanpur sellable.

**K) Inspection Body:**

By an Office Memo of Export Promotion Bureau, Uttar Pradesh, an Inspection Body has been formed for the Saharanpur Wood Craft for securing the Geographical Indication Registration. The following shall be the members of the Inspection Body: Technical Member nominated by the Representative of Wood Seasoning Plant, Saharanpur; Two local National/State Award winner expert craftsmen who would work in rotation of seniority for a year; and General Manager, District Industry Centre, Saharanpur who shall work as a Convener.

The Inspection Body shall work under the coordination of Umbrella Organization for which Government Order 1273/18-4-2012-37 (Mis)/06 have been issued on July 2, 2012. The Export Promotion Bureau, U.P, shall be the Nodal Agency in this respect.

**L) Others:**

The goodwill and reputation earned by Saharanpur Wood Craft is not just the common property of the manufacturers and exporters but also the property of the craftsman and artisans who are tirelessly working and innovating new designs and products for generations. Over a lakh artisans and craftsmen work on different facet of wood carving industry of Saharanpur. The artisans have skills to engrave a timber without drawing anything over it and the handwork is also so precise that two or more pieces of the same item are almost the exact replica. The engraving work could be so fine that it would require magnifying lens to see the work. There are **Seven National Awardee and Thirteen State Awardee** Wood Craft Artisans with the Saharanpur wood craft Industry.

## Saharanpur



\*The Map showing the National Highway, Major roads, other Roads, District Headquarter, Town, etc and the area of production in Saharanpur District, Uttar Pradesh

The district lies between 29 degrees 34 minutes 45 seconds and 30 degrees 21 minutes 30 seconds north latitude and 77 degrees 9 minutes and 78 degrees 14 minutes 45 seconds east longitude.

Advertised under Rule 41(1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 54 dated 28<sup>th</sup> November, 2013

### **G.I. APPLICATION NUMBER - 215**

Application Date: 02-08-2010

Application is made by **Dharmavaram Handloom Pattu Sarees Apex Society Limited**, D.No. 10-2-5, Behind Jayalakshmi Theatre, Dharmavaram Town & Mandal, Pincode: 515671, Anantapur District, Andhra Pradesh, India for Registration in Part-A of the Register of **Dharmavaram Handloom Pattu Sarees and Paavadas** under Application No: 215 in respect of Silk skirt / Pavadas material and blouses being textile goods falling in Class – 24 and Sarees being textile goods falling in Class – 25 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) **Name of the Applicant** : **Dharmavaram Handloom Pattu Sarees Apex Society Limited**
- B) **Address** : Dharmavaram Handloom Pattu Sarees Apex Society Limited, D.No. 10-2-5, Behind Jayalakshmi Theatre, Dharmavaram Town & Mandal, Pincode: 515671, Anantapur District, Andhra Pradesh, India
- C) **Type of Goods** : **Class – 24** – Silk skirt / Pavadas material and blouses being textile goods.  
**Class – 25** – Sarees being textile goods

D) **Specification** :

- Dharmavaram Handloom Silk Sarees and Silk Pavadas are exclusively made of mulberry silk woven by hand.
- **Loom:** They are woven on pitlooms the measurement of which is 30' length, 60' width, and about 10 feet height, occupying an area of about 15 square feet.
- **Material:** The material is made from 100% pure silk from Mulberry cocoons. Sarees only made in silk.
- **Zari:** Presence of zari is a must in Dharmavaram silk sarees and pavadas. This adds to elegance and grandeur of the textile.
- **Nature of zari:** Half fine (or Twisted) quality zari obtained exclusively from Surat, Gujarat is only used in manufacture of the instant GI. The zari for borders is used in warp and for pallu and body zari is used in weft. Green, silver and pink coloured zari also used.
- Every Silk saree and Pavada of Dharmavaram shall invariably consist of Zari ranging between 15% and 50% of the total weight and area of saree or pavada.
- The zari used for Borders, pallu and body designs of the Dharmavaram handloom pattu saree and pattu pavada is half fine or tested zari.
- **Colours:** Sarees generally bright and resplendent available in all **colours** and combinations.

- **Designs/Motifs** represented on pallu and body of saree are symbolic of flora and fauna, are largely inspired by temple murals and paints from Lepakshi temple, near Anantapur. Recently scenes from epics are also largely depicted.
- Characteristic absence of prints on the material. All motifs are only woven. Woven motifs on the top of the material are visually disparate from that on the underside of the material. ( 240 to 1440 hooks are used to weave heavy motifs);
- **Purpose:** Meant generally for cool or cold climate, or winter wear for grand and auspicious occasions;
- **Use:** Often used for making classical dance costumes for Bharath Natyam and Kuchipudi dancers.
- **Measurements:**  
**Saree:** 5.5 meters + 90 cms. (blouse) ie., length with blouse; width-46inches to 50 “inches.: Weight-750 gms to 1400 gms  
**Paavada-** Width can vary from 20 to 45 inches Length 1.5 mts. To 4.0 mts. Weight- . from 150 gms. To 600 gms.
- Acid dye used.
- Eco friendly and highly durable and can last upto 50 years.
- Presence of **Kuttu**—where border is independently created and attached to the body of the saree of pavada using special techniques. However **kuttu** is not prevalent in pallu. Single side border would have one side **kuttu** and double side border has two **kuttus**. Materials can also be made without **kuttu**.

S No Product	Yarn specification	Saree specifications
Dharmavaram Saree	<b>Yarn :</b> Pure Silk <b>Warp X Weft :</b> 18/20sX18/20s Denier (2 ply) 20/22sX20/22s Denier(2 ply) 22/24sX22/24s Denier(2 ply) <b>Length :</b> 5.5 Mtrs + 90 cm blouse <b>Width :</b> 46/50 inches <b>Reed :</b> 120s / 110s / 100s / 92s	Picks/Inch : 72-80 Border : Pure zari, Half fine zari, Dyed Yarn Cross Border : Pure Zari, Half fine Zari, Dyed Yarn Designs : Pure Zari, Half fine Zari, Dyed Yarn
Dharmavaram Silk Paavadai Yarn specification: 20inches to 45 inches	<b>Yarn:</b> Pure silk <b>Warp X Weft:</b> 18/20sX18/20s Denier (2 ply) 20/22sX20/22s Denier(2 ply) 22/24sX22/24s Denier(2 ply) <b>Length:</b> 1.5 mtrs to 4.0mts <b>Blouse:</b> 40 cms. To 90 cms. <b>Width:</b> 20 to 45 inches <b>Reed:</b> 92s and 120S	Picks/inch: 72 – 80 Border: Pure zari, Half fine zari Dyed yarn Cross Border: Pure zari, Half fine zari Dyed yarn Designs: Pure zari, Half fine zari Dyed yarn



**E) Name of the Geographical Indication :**

**DHARMAVARAM HANDLOOM PATTU SAREES AND PAAVADAS**



**F) Description of Goods:**

Dharmavaram Sarees are essentially made of pure mulberry silk, with elaborate zari work woven on them in resplendent colours. The characteristic Dharmavaram saree has broad solid colour borders with intricately woven brocaded gold border. It is eco-friendly, highly durable and enhances the grandeur and aura of the lady wearing it in social functions. Though worn in all weather conditions, it is better suited for cool or cold climate. It is most appropriate for grand functions. Designs on the pallu and body of saree largely represent flora and fauna as also traditional legends of the country. Leaf, Flower, Fruit, animals and bird designs are largely incorporated in Dharmavaram sarees. More recently the weavers have improvised the weave of the zari to include various contemporary themes as seen in the pictures below. Peacock and Parrot designs are however the most popular and most traditionally used. The semi-arid tropical climate and the quality of water contribute to the colour fast nature of the yarn during production.

Different combinations of workmanship on the saree are possible:

- a) One side Kuttu Saree
- b) Double side Kuttu Saree
- c) One side self Saree
- d) Double side self Saree
- e) One side semi contrast Saree
- f) Double side semi contrast Saree
- g) Evening and morning brocade saree
- h) Tape border saree

(\*Kuttu : A joining between the border and the body of the saree)

All the above have varying degrees of zari work woven with dexterity to perfection, hitherto unprecedented. The ingenuity of the artisans has made it possible for exquisite weaving of themes like Ramayana and Mahabaratha on the sarees.

**G) Geographical Area of Production and Map as shown in page no. 74:**

The GI producing region lies between Located between 13°40' and 15° 15' North Latitude And 76° 50' and 78°30' East Longitude

Main areas of production being Dharmavaram, Hindupur, Somandepalli and Yadiki mandals, in Anantapur District of Andhra Pradesh, along with contiguous areas of production in Chittoor, Kadappa & Kurnool districts

#### **H) Proof of Origin ( Historical records ) :**

Dharmavaram is eminent throughout the country for its elegant silk sarees. The town is situated at a distance of approximately 47 km from Anantapur city in the district of Anantapur in the Rayalaseema region of Andhra Pradesh. Its silk weaving industry has made the city renowned not only in India, but throughout the world.

Dharmavaram is a small town of rich handloom cluster is situated in the District of Anantapur of Rayalaseema region in A.P. A humble beginning with nearly 100 families in and around Dharmavaram village, has now grown into more than 2 lakh families in Anantapur and Rayalaseema districts i.e., Kadapa, Chittoor, Kurnool besides Anantapur district.

In the year 1153-54 AD, a person named “Kriya shakthi Vodavaru Swamy” had got a village constructed on the banks of Chitravathi river. To commemorate his mother Dharmamba, he named the village after her as Dharmavaram. In course of time, in 1569 to 70 AD the Dharmavaram reign passed on to the hands of the Hande dynasty from Vijayanagara rulers.

As per the records in 1895 AD, there were 172 Handlooms (both wool and cotton). By the year 1919, the population of Dharmavaram had grown to 7386. Handloom weaving has been their main stay in the village by then. As the years rolled by, silk handloom weaving occupied a predominant position in Dharmavaram.

(Source: “Dharmavaram Charitram” by Seeripi Anjaneyulu, printed by Andhra Patrika Mudrakshara Shala, Chennapuri, Year 1918).

An excerpt from *DIGITAL SOUTH ASIA LIBRARY, Imperial Gazetteer of India, v.11, p.299,300, from Meyer, William Stevenson, Sir, 1860-1922, et al. Imperial gazetteer of India. Oxford: Clarendon Press, 1908-1931.* References of Dharmavaram therein have been made “to a thriving silk industry and market way back in late 19<sup>th</sup> Century”.

Evidence of origin of Dharmavaram sarees can also be found in the roof wall paintings of Lepakshi temple near Hindupur. Besides, there are a total of 280 designs in the temple constructed during the year 1522 to 1538 AD. A place called “Latha Mandapam” wherein 36 rock pillars have 144 unique designs of Dharmavaram sarees.

#### **I) Method of Production :**

The production of Dharmavaram sarees involves the following steps-

- **Raw Materials Used:**

1. Pure Mulberry silk in raw silk or silk yarn form

2. Zari threads in silver and gold, red and green (sourced from Surat)
3. Acid dyes
4. Soap and Soda for degumming yarn
5. Local water

- **Procurement of Raw Material:**

Mulberry Silk is procured in both raw silk and silk yarn. If procured as raw silk, it is obtained from Bangalore, Siddalagatta, Ramnagar, Kanakapura in Karnataka State. If obtained in form of silk yarn, from Madanapalli, Hindupur, Kuppam and Dharmavaram of Andhra Pradesh. Of these Silk yarn from Siddalagatta is of most superior quality.

Following are the main sources of silk yarn obtained for manufacture of Dharmavaram saree and Pavada in terms of percentage.

i.	Dharmavaram local	-	10%
ii.	Siddhalagatta	-	40%
iii.	Bangalore	-	25%
iv.	Rampur	-	25%

Use of Zari in the GIDharnavaram Handloom pattu sarees and pavadas compulsorily use Zari which ranges from 15% to 50% of the total weight and area of the saree or pavada. The Zari used in the instant GI is called tested Zari, also called half fine Zari or chemical fast Zari procured from Surat, Gujarat. Golden, silver green and pink coloured Zari are used. Half Fine zari is not only used for design on the sarees, but also used as warp and weft in place of silk.

Zari which is used in the borders is in the shape of warp. On right side it has width 1"- 6" and in left side 1"-3" width. For pallu, zari is used in weft and the design size varies from 14" to 38".

On body of the saree, the zari is woven in weft which is taken on to loom through shuttle and Pirn.

Besides Gold colour Zari in order to get extra warp and extra weft, silver colour, green and Red colour zari is used in lesser quantities.

### **Quality of silk used**

Dharmavaram handloom pattu sarees and pavadas use the most superior variety of silk.

In order to get fine variety of silk yarn, 6-7 cocoons are boiled in steam and single yarn is taken out of 6-7 cocoons, from which **18-20 Denier silk yarn** is obtained. To make it strong and qualitative single twist is done followed by doubling of TWO yarns, resulting in 24/28 twist. This yarn is used for warp.

Similarly, 8-9 cocoons are boiled in steam and single yarn is taken out of 8-9 cocoons, from which **20-22 Denier Silk yarn** is obtained. To make it strong and

qualitative, single twist is done followed by doubling of two yarns, through which 6/8 twist is obtained. This yarn is used for weft.

- **Degumming of Silk:**

The raw silk sourced as above is harsh and unsuitable for dye treatment. Hence it is subjected to degumming treatment by soaking it in boiling water in which soap and soda ash are added. This cleans the yarn of its natural gums from the source. The yarn is boiled in hot water with soda ash and soap for about one hour to ensure that the gum on the fibres slowly gives way. The weight of the yarn after degumming gets reduced by almost 25%.

After boiling, the yarn is left to soak in the same liquid overnight. The next morning, the yarn is thoroughly rinsed and the excess water is squeezed out. The yarn becomes soft and glossy.

**Process:** Per kg yarn 30 Ltrs. Of water is obtained. This ratio of 1:30 should be mixed with natural soap – 5 GPL (Grams per litre) Soda – 0.5 GPL. This mixture should be boiled in 85<sup>0</sup>-90<sup>0</sup> celcius for ONE hour. After that, the yarn is dried in Room Temperature for 24 hours. By this process the weight of yarn is lost to the extent of 20-25% subsequently, the silk yarn is taken for colour dyeing.

- **Plying of Yarn:**

Once excess water is wrung or twisted out, the yarn is ready for dyeing as the yarn now has the capacity to absorb the dyes. The twisted yarn out of which excess water is wrung out, is then dried. Plying of yarn is done both for saree and pavadas. Warp takes 24 to 28 twists while weft takes 6 to 10 twists. Plying is done to give durability and thickness.

- **Dyeing:**

Dharmavaram saree weavers use direct acid dyes which are available in all rainbow colours. Depending on the requirement, upto 500 colour combinations are possible from the basic rainbow colours. For this purpose the weavers use the requisite proportions of required colours to arrive at the desired hues and shades.

Once the colour or shade is decided, the plied yarn is ready for absorption of dye. The acid dye is added to hot water at 90 degrees and the plied yarn is then soaked for about 45 to 60 minutes.

Then the dyed yarn is washed in ordinary water to rinse out excess dye. An important step at this juncture is the soaking of the washed yarn in room temperature water into which acetic acid has been added. Notably, this step gives a glow and sheen to the yarn and makes it stiff and durable.

Dharmavaram silk dyeing entails use of Acid dyes and Metal Complex dyes through which more than 1500 colours and shades may be created. A proper process for dyeing would involve detailed attention to liquor ratio, temperature control, mixing of chemicals in the dye bath, control of P<sup>H</sup> and appropriate mechanical agitation.

### **Dyeing of Silk with Acid Dyes:**

Acid dyes can be easily applied on silk and therefore are largely used for dyeing. They are applied generally in the presence of an organic or inorganic acid and hence are called acid dyes. They produce wide range of brilliant shades. The fastness properties of individual dyes however vary depending on the chemical constitution of the dyes.

Acid dyes are specially used for dyeing of protein fibres like silk and wool. In the actual dyeing process, the required quantity of dyestuff is taken and is pasted with hot water and boiling and filtering it. Then the dye stuff is transferred to the dye bath set at 1:30 ML ratio. Though the dyeing has to be done at 85° Celsius, to avoid unevenness, the dyeing is started at 45-50° Celsius. 5-10% - Glaubers salt or Boiled off liquor is added to get even dyeing by retarding the rate of absorption in the initial stages. The material is entered in the dye bath and dyeing is continued. The temperature of the bath is slowly raised to 85°. At this temperature 2-4% of Acetic Acid is added which will help in fixation of the dye. The temperature should never exceed 85-90° Celsius which will affect the luster of the fiber and may lead to entanglement of the yarn. After the dyeing is over the material is removed, washed, soaped and then washed.

### **Treatment of Effluent-**

Dharmavaram silks are made in an environment friendly manner. After the dyeing phase, Sodium Hydroxide is added to the remaining dyes which neutralizes the acidity in the effluent and it is then drained in the normal channel. Hence the process is rendered eco-friendly. There is no record of any disease.

- **Drying**

The dyed yarn is then dried on bamboo sticks for 5 to 6 hours. No specific temperature requirements are relevant. It is dried in room temperatures arranging between 30 degrees celsius and 40 degrees celsius. It is pertinent to note that the yarn is dried indoor.

- ❖ **PRE-LOOM PROCESS:**

- **Checking of Cutting In Warp**

The weaving process brings together two sets of yarn used on the loom. The warp extends to the length of the saree. A warp extends approximately to the length of 10 sarees. The weft contributes to the width of the saree.

- **Warping**

The Warp yarn in hank is then transferred through a “charka” and shift bamboo into a bobbin. The weft is made by winding the hank yarn into a Pirn which is inturn inserted into a shuttle. Next, the warp yarn from the bobbin is rolled out into a warping machine which is a big circular contraption, with bamboo sticks. By a rotating process, the yarn is rolled out of several bobbins into the warp machine.

- **Street Sizing**

Next the warp is mounted on bamboo sticks and is extended to its full length. Then it is sprayed with rice congee to reinforce the fibres and make it amenable for weaving. This is done for about 45 minutes, and depending upon the time of the day and weather conditions, the fibres are left to dry.

- **Weaving Process**

It is noteworthy that only pitlooms are used for original Dharvaram silk weaving. No powerlooms are used. Dharmavaram sarees and Paavadais are hence completely Handloom. A weaver takes 8 to 10 hours a day of weaving in 5 to 8 days to make one saree.

After street sizing, the warp is ready for weaving. It is mounted on a beam, and the weft which is in the Pirn is placed inside a shuttle and placed perpendicular to the warp beam. For every pull of the lever, the weft moves across the warp once thus adding to a weave.

This was the traditional method of weaving the warp and weft.

Jacquard is used for more complicated designs while doobby is used for the simpler designs. In the jacquard cards with punched holes are inserted and placed appropriately to effect the required designs on the cloth. The distinctive process of weaving of Dharmavaram saree and Pavada is weft weaving of 2 ply and 3 ply.

Only Pitlooms are used in Dharmavaram silk weaving. Dharmavaram silk weaving is conspicuous by the absence of power loom. The pitloom enhances the stability of the Weaver during the weaving process. The material is completely hand woven and is conspicuous by absence of any form of printing.

Graph paper is used for incorporating the designs. The motifs are first incorporated on the graph paper and later superimposed on the material on which the weave is carried out. One saree takes approximately 5 to 8 days by one person for about 8 to 10 hours a day.

No petni technique is used in the process of weaving. This enhances the quality of weaving, life of saree and exhibits a grand look. This also provides ease for the weaver. But on the other hand, Kuttu Dharmavaram saree weaving essentially relies on Tie & Dye method. The unique feature of this process is that the border, blouse and pallu are obtained in one colour and the body of saree is obtained in another colour.

The process of Tie & Dye involves preparation of warp for 10 sarees. This is done through street warping by marking to each saree. For both borders of Saree 16 Livis (1600 threads) are separated. For 5 Sarees one colour and other 5 sarees another colour Dye is done. For rest of the warp, pallu and body of the saree 90-110 livis (9000 to 11000 threads), separate colour dyeing is done. No petni work is done, as this process of Tie & Dye provides strength, grand look and life to the saree.

For manufacture of saree and Pavadas, quality silk Yarn is used for warp and weft. For a few sarees the entire warp is used Zari as raw material. In order to bring aura and Grandeur, Extra Warp, Extra weft and meena work is done on the sarees and pavadas. To manufacture, 2 - 4 shuttles and 2-18 chillis are used. Reeds from 80, 90, 92, 96, 100, 110, 120 Nos. are used. The weight of saree varies from 750 Grms – 1400 Grms.

### **Relevance of Picks per inch/Ends per inch**

There are 10000 to 11000 threads are used for producing a Saree. Generally Dharmavaram Saree is woven choosing Reed counts 80s, 90s, 92s, 100s, 120s, made of steel or bamboo. This number dents (splits) in one inch of Reed. The Reed is manufactured accordingly. Higher the number, finer will be the quality of Saree in forms of design and smoothness. As regards weft, usually there are 65 to 75 picks per inch. (P.P.I)

Nomenclature:

For warp- 80 to 120 ends per Inch (E.P.I);

For weft – 65 to 75 picks per inch (P.P.I)

### **Requirement of shuttle:**

Depending upon the requirement, 2 – 4 shuttles are used for weaving sarees. At the beginning for weaving blouse one shuttle is used and in similar colour pirn is used. Even in pallu weaving similar colour pirn continues. For weaving pallu, Pirn with gold zari is fitted in shuttle is used to obtain jacquard design in Weaving. In order to get more grandeur and attraction to the pallu, Meena work is done. This meena is obtained through pirn with hand woven manually. For the body of saree 2-3 shuttles are used. The distinctive feature of Kuttu Technique in Dharmavaram Saree is that to obtain borders on both sides pirns of similar colour is used.

### **Dharmavaram pattu sarees and pavada - conspicuous by absence of prints:**

Dharmavaram Saree and pavada production is conspicuous by the absence of any prints on the materials. All kinds of designs and motifs, whether grand or simple, and mostly using zari threads are woven into the material. which give it an extravagant look.

All motifs like buttas, beat buttas, fancy buttas, Kalanjali, beat kalanjali, shoulder work design, meenas, these are purely hand woven with extra zari, using less quantity extra silk weft. These motifs are woven with shuttles and thillies. About 8 to 12 thillies are used. Heavy motifs are woven with the help of Jacquards Ranging from 240 hooks to 1440 Hooks (1-6 Jacquards used for 240 hooks). It's all truly hand woven and the uniqueness lies in the fact that the underside of the motifs cannot be identical to the top side of the material.

- **Cutting & folding:**

Folding is done manually in the size of 12" X 8". Packing is then done in attractive paper boxes.

## **J) Uniqueness:**

The Dharmavaram silk is essentially handloom woven and not power loom. The saree has a rich luster and its resplendence and grandeur makes Dharmavaram saree stand out. The Dharmavaram pattu saree and pavada uses superior quality silk and half fine tested zari for its elaborate workmanship. The material is characterized by the absence of any prints but instead has only richly woven motifs of flora and fauna and designs inspired by the temple murals and paintings of the famed Lepakshi temple in Hindupur, Anantapur district. The uniqueness of Dharmavaram sarees lies in its durability, its regal look, grandeur and suitability for grand occasions. The use of gold, silver, green and red zari adds to the magnificence of the saree making it very appropriate for use in grand occasions. Despite its suitability for grand occasions, Dharmavaram pattu sarees and pavada are durable due to their production on pitlooms which render the weavers added stability. These sarees last upto 50 years also due to usage of weft of two ply and three ply. The colour is fast and is guaranteed. These characteristics can be attributed to the degumming and dyeing techniques coupled with the dry temperatures which are conducive to silk weaving.

### **Geographical factors:**

Altitude in Dharmavaram is 1132 ft. above sea level, Water quality-soft with moderate humidity, which are best suited for silk saree production, Temperatures in this region range between 25 degrees and 40 degrees celsius. Climate in Dharmavaram is semi arid tropical. Rainfall in this region being the lowest in Andhra Pradesh, favours the production of silk as silk yarn breaks easily in rainy weather.

### **Reputation:**

The region of Dharmavaram also prides itself as being home to dextrous and experienced handloom weavers as can be seen from various documents indicating proof of origin of the GI.

The uniqueness can be summarized as follows:

- i. Only handloom;
- ii. Very grand and colourful used widely for auspicious functions and for making bharathanatyam and kuchipudi costumes;
- iii. Made only pitloom contributing to durability
- iv. Reputation for silk weaving for centuries;
- v. No prints, only handwoven motifs;
- vi. Use superior quality silk mainly from Siddhalagatta;
- vii. Zari used is half fine tested zari;
- viii. All colours are possible;
- ix. Murals and paintings of Latha mandapam of Lepakshi temple, Hindupur form basis for most designs of the sarees and pavadas of Dharmavaram;
- x. Kuttu technique used for joining borders of different colours, and not petni technique like some other silk sarees;
- xi. Durability
- xii. Reasonably priced



**K) Inspection Body:**

It has been proposed to have a 5 member team as Inspection Body for the GI Dharmavaram Handloom Pattu sarees and Pavadas. The members are:

- i. One Member from the Textile Committee
- ii. One senior official from Central Silk Board.
- iii. Local Asst. Director, Handlooms, Anantpur Dist.
- iv. One Master Weaver
- v. President/Vice President of the Society.

**L) Others:**

**CERTIFICATION BY CENTRAL SILK BOARD:**

An office of the Central Board Silk Board is located in Dharmavaram which certifies the quality of the silk used for the weaving. The strength of the yarn, twist testing and Dinear testing take place here. The twist testing is done to ensure that the warp has 24 to 26 twists per inch while the weft has 6 to 10 per inch.

APCO and the Central Silk Board are the government agencies undertake the responsibility to inspect the quality of silk and the sarees. The manner of inspection is through procurement by trained procurement officers and technical assistants of the APCO in case of the sarees. The Central silk Board conducts the following exercise:

(a). Raw silk testing is carried out for all the characteristics of raw silk adopting the International Silk Association (ISA) and the Central Silk Technological Research Institute (CSTRI) Bangalore, procedures.

(b). In case of Silk sarees, the following tests are conducted based on need:

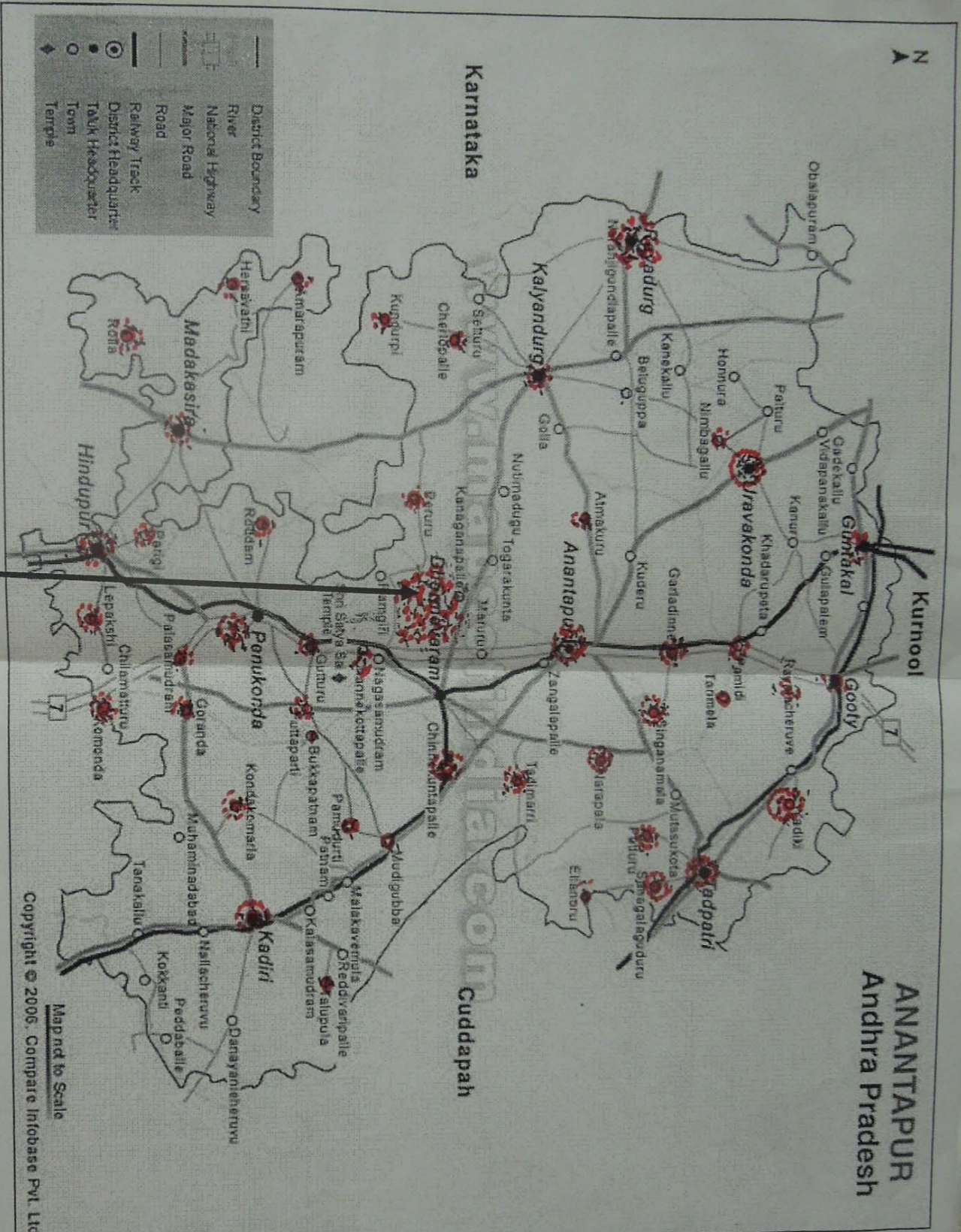
- (i). ends per inch (EPI) and Picks per inch (PPI)
- (ii). Silk warp denier and weft denier
- (iii). Type of woven design
- (iv). Fabric strength
- (v). purity of zari
- (vi). Fastness Test for colour:
  - (a). Wash fastness test
  - (b). perspiration test
  - (c). Light fastness test.

APCO further certifies sarees sourced from the Cooperative Weavers society as being pure handloom. In addition they price the final products based on Ends per inch (EPI) and Picks per inch (PPI) and Reeds- The other weavers use their expertise and experience in gauging the quality maintenance of the finished product.

N

Legend:

- District Boundary
- River
- National Highway
- Major Road
- Road
- Railway Track
- District Headquarter
- Taluk Headquarter
- Temple
- Temple



11 Affected 11  
 Assistant Director  
 Handlooms & Textiles  
 ANANTAPUR.

Dharmavaram

Map not to Scale  
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Assistant Director  
 Hand-Looms & Textiles  
 ANANTAPUR.

Advertised under Rule 41(1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 54 dated 28<sup>th</sup> November, 2013

**G.I. APPLICATION NUMBER – 239**

Application Date: 06-07-2011

Application is made by **Adivasi Yuva Seva Sangh**, AYUSH, Adivasi Yuva Shakti, Kothal Pada, Village - Waghadi, Post – Kasa, Taluka – Dahanu, District – Thane, Maharashtra – 401607, India for Registration in Part A of the Register of **Warli Art** under Application No: 239 in respect of Precious metals and their alloys and goods in precious metal or coated therewith, not included in other classes falling in Class – 14 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) Name of the Applicant :** **Adivasi Yuva Seva Sangh**
- B) Address :** **Adivasi Yuva Seva Sangh,**  
AYUSH, Adivasi Yuva Shakti, Kothal Pada,  
Village - Waghadi, Post – Kasa, Taluka –  
Dahanu, District – Thane, Maharashtra –  
401607, India
- C) Types of Goods :** **Class - 16** – Greeting Cards, Posters, books, Wall Paper, stationary & similar Items.  
**Class - 20** – Picture Frame, Wooden items, Decorative Items, Hangings, Furniture.  
**Class - 25** – Cloths & apparels, Canvass, Banner, Curtain & Covers & Similar Textiles.

**D) Specification:**

Warli Painting is done with using basic shape of triangle, circle, line & rectangle etc. Originally these paintings were done on cultural rituals. Traditionally done on wall, so no specific size of paintings. This art is a vivid expression of the daily and social life of the tribal people as well as showcase of close connection between nature and the tribes. It was the medium to transmit the folklore to a community which is not acquainted with the written word. They draw these paintings for special occasions such as festivals; harvest, marriage etc. and paintings were made during ritual ceremonies. They get inspiration from the everyday life. These paintings do not only represent the art of the tribes, but they show the life of these people. Their colourful culture, their traditions, customs and rituals are shown in paintings. We can see their environment, their gods, the traditional tribal villages, the people, the animals, and such kind of activities as harvesting, celebration & festivals, marriage ceremonies etc.

**E) Name of the Geographical Indication:**

**WARLI PAINTING**



**F) Description of the Goods:**

Warli painting draws with help of naturally and easily available ingredients. Warli painting draws without any outline before painting. It draws directly on surface as per the imagination. Though geometrical shapes are used in this, there is no measurement to do painting. Only few colours use in which white colour is very important. White colour on austere brown colour is classic combination in Warli paintings. Originally this art is done on few traditional occasions. Though geometrical shapes are used in this, there is no measurement to do Warli painting.

- Traditional painting:  
Painting made during rituals ceremonies
- Commercial Painting:  
Painting made for commercial purposes
- Painting on Paper & card boards & Similar:  
Painting on Paper, Wall Paper, cardboard and goods made from these materials, printed matter; bookbinding material; photographs; stationery; adhesives for stationery or household purposes; artists' materials; paint brushes; typewriters and office requisites; instructional and teaching material; plastic materials for packaging; playing cards; printers' type; printing blocks. Various applications in stationary items can be done with Painting.
- Wooden articles & furniture:  
Painting on Furniture, mirrors, picture frames; goods of wood, cork, reed, cane, wicker, horn, bone, ivory, whalebone, shell, amber, mother- of-pearl, meerschaum and substitutes for all these materials, or of plastics. Painting on various furniture items attracts attention. To match design various frames, hangings, paintings are done on wood.
- Cloth & canvass Painting:  
Painting done on clothing & Canvass. As ritual practices painting on cloth (Kutrumbe Dev) transforms to canvass painting in modern days. Painting on apparels (like T Shirt, Salvar Kurta, Sarees, etc.) is common. Also on various garments, interiors curtains are taken major part.
- Sample Basic Image geometry:  
Shows basic shapes & elements used in painting

**G) Geographical Area of Production and Map as shown in page no.: 83**

Warli Painting is practiced by the Warli tribesmen of Malhar Koli and Warli Tribe, found in Maharashtra, Gujarat, Dadara & Nagar Haveli, Daman Diu in the following places as mentioned below:

No	State	District	Taluka	Latitude	Longitude
1	Maharashtra	Thane	Dahanu	19° 57' N	72° 44' E
2			Talasari	20° 7' N	72° 55' E
3			Jawhar	19° 89' N	73° 13' E
4			Vikramgad	19° 47' N	73° 5' E
5			Mokhada	19° 54' N	73° 21' E
6			Wada	19° 39' N	73° 11' E

7			Shahapur	19° 27' N	73° 19' E
8			Bhivandi	19° 16' N	73° 2' E
9			Palgahar	19° 42' N	72° 46' E
10			Vasai	19° 23' N	72° 51' E
11			Murbad	19° 15' N	73° 23' E
12			Ambarnath	19° 11' N	73° 11' E
13			Kalyan	19° 14' N	73° 7' E
14			Ulhas Nagar	19° 12' N	73° 9' E
15			Thane	19° 13' N	72° 58' E
16		Mumbai Suburban	Borivali	19° 13' N	72° 51' E
17		Nasik	Kalvan	20° 57' N	73° 81' E
18			Surgana	20° 33' N	73° 38' E
19			Peth	20° 20' N	73° 36' E
20			Igatpuri	19° 41' N	73° 33' E
21		Raigad	Pen	18° 44' N	73° 5' E
22			Karjat	18° 55' N	73° 19' E
23	Gujarat	Valsad	Dharampur	20° 32' N	73° 10' E
24			Umargam	20° 10' N	72° 45' E
25			Pardi	20° 52' N	72° 95' E
26			Kaprada	20° 20' N	73° 13' E
27		Dang	Dangs	20° 47' N	73° 44' E
28		Navasari	Vansad	20° 46' N	73° 24' E
29			Chikhli	20° 75' N	73° 07' E
30		Dadara & Nagar Haveli (UT)	Full territory		20° 15' N
31	Daman Diu (UT)	Daman		20° 24' N	72° 50' E

## H) Proof of Origin (Historical records) :

### Ancient Period:

*“The Warlis carry on a tradition stretching back to 2500 or 3000 BCE. Their mural paintings are similar to those done between 500 and 10,000 BCE in the Rock Shelters of Bhimbetka, in Madhya Pradesh.”*

In the 3rd century BCE, a Greek ethnographer named Megasthenes travelled to India as an ambassador to the court of Chandragupta Maurya. His writings talk of an area called Varalat around the present day Dharampur near Thane district of Maharashtra. Some scholars think that this is where the Warli people are derived from, and that their association with their current home goes back at least 2300 years into the past.

In Ancient periods this geographical area was known as “Warlat Pradesh”. Tribal People from Warlat Pradesh use to draw this painting culturally which came to be known as Warli.

According to Dr. Wilson the word comes from “Varal”, a small patch of cultivated land, and means an up lander. It is connected by other with “varalat”, the sixth of the ancient seven kokans.

According to the Thane Gazetteer Warli have three divisions Murdes, Davars and Niharis. While the tribesmen add some more divisions, there are Dongar Warlis, Ghat Warlis, Pathar Warlis, Malhar Warlis, Kokani Warlis, Zanjare Warlis and Pawar Warlis. These tribes are principally found in Thane District in the state of Maharashtra. They are also scattered to vary few numbers in parts of Nashik & Greater Bombay. They are also found in Gujarat in Valsad, Wansda, Dharampur, Dang, Dadara and Nagara Haveli and few other places on the Gujarat Maharashtra Border. According to census of Maharashtra, Schedule tribe report (1961:30)

This art is a vivid expression of the daily and social life of the tribal people as well as showcase of close connection between nature and the tribes. It was the medium to transmit the folklore to a community which is not acquainted with the written word. They draw these paintings for special occasions such as festivals, harvest, marriage etc. They get inspiration from the everyday life. These paintings do not only represent the art of the tribes, but they show the life of these people. Their colourful culture, their traditions, customs and rituals are shown in Warli paintings. We can see their environment, their gods, the traditional tribal villages, the people, the animals, and such kind of activities as harvesting, celebration & festivals, marriage ceremonies etc.

Originally this art is done on traditional occasions. Those are listed bellow:

- Phadacha Dev (Padichya Devi) : Painting On Cloth
- Kutumb Dev, Painting is done on cloth. Generally celebrated after each 5 years (Also Known as Paach Salya).
- Saticha Dev : Done on wall Celebrated on 5th Day of new baby birth, Painting Done on wall
- Lagnacha Chauk (Lagin Chauk, Dev Chauk): Done on wall Painting, drawn on main interior wall of House for marriage ceremony.
- Nave Bhat Khane / Khalyacha Dev: Done on ground, during celebration of Nava Bhat khane, Painting done on Ground.
- Gaur Chalavane: Done on ground & wall, during celebration of Gaur, Painting (Gaur Chalavane) done on ground & wall in kitchen.
- Kana Kadhane: Done on Ground, drawn on ground, during any festival drawn in front of home or Mandav.
- Nadar Kadhane: Done on ground, drawn on ground, some special event.

Ritual Songs & Mythology: Tribal Oral Literature

Huge literature is passed to generations from ancient period in oral form. Those oral songs and stories are motifs of Painting. The ceremonies of the Adivasi always abound with elaborate rituals which scrupulously performed by the people, such as rituals connected to Agriculture, ceremonies regarding marriage, birth and death are full of such rituals, so is the proportion of the different tribal deities. Bhagat, Dhavaleri, Savasi, Suyin paly important role.

**(I) Method of Production:**

Tradition of Warli Painting is ancient and there are environmental & nature influences the method of production. (As changes in resources availability, traditionally Warli painting is done with naturally available resources). Although Regular Research & Innovation is done in area of optimizing method of production & Colour preparation. Below listed methods are indicative.

❖ **Traditional Painting Method**

**Preparation:**

- a) Shen (Cow dung Mixture): Filtered Extract of cow dung mixed with sufficient water content to form homogeneous paste
- b) Geru / Lal Mati (Earth Mixture): Filtered & fine powder of Geru mixed with water to form liquid colour
- c) Pitha cha Rang (Rice Powder Paste): White colour is obtained from grinding soaked rice with water.
- d) Salatichi Kaadi / (Bamboo Stick/Brush): Bamboo Stick crushed at end to form as brush

**Painting:**

- a) Lipane: The wall is coated by earth to make level & smooth background for painting.
- b) Saravane: The wall is coated by cow dung paste to make austere background for painting.
- b) Lihane : Making Painting on wall with rice paste by using bamboo stick as painting brush.

❖ **Commercial Painting Method:**

**Painting on Paper & similar objects:**

Painting on “Paper, cardboard and goods made from these materials, printed matter; bookbinding material; photographs; stationery; adhesives for stationery or household purposes; artists’ materials; paint brushes; typewriters and office requisites; instructional and teaching material; plastic materials for packaging; playing cards; printers' type; printing blocks”

Production Method similar with reference to traditional. Few Advance techniques implemented to make painting more durable & attractive on paper

**Preparation:**

- a) Base Colours (If required): Preparation of thick colour paste for applying on surface
- b) Painting Colour (desired Colour): Preparation of Liquid colour for painting
- c) Coating Liquid (If required): Coating transparent layer on painting to protect painting from dust/water/sun etc.
- d) Brush & Colouring Instruments: Preparation appropriate brush Size & marking instruments

**Painting:**

- a) Base Preparation: Prepare paper of required size & colour, of desired thickness
- b) Applying base Colour: required area coloured by desired texture & colour themes
- c) Sketching: Marking layout of theme & basic shape
- d) Painting: Drawing objects & Applying colour to shapes
- e) Coating: Applying protective coating for painted area

❖ **Painting on Furniture & wooden objects:**

Painting on “Furniture, mirrors, picture frames; goods of wood, cork, reed, cane, wicker, horn, bone, ivory, whalebone, shell, amber, mother- of-pearl, meerschaum and substitutes for all these materials, or of plastics”

Production Method similar with reference to traditional. Few Advance techniques implemented to make painting more durable for modern furniture & decorative articles

**Preparation:**

- a) Base Colours (If required): Preparation of thick colour paste for applying on surface
- b) Painting Colour (desired Colour): Preparation of Liquid colour for painting
- c) Coating Liquid: Coating transparent layer on painting to protect painting from dust/water/sun etc.
- d) Brush & Colouring Instruments: Preparation appropriate brush Size & marking instruments

**Painting:**

- a) Base Preparation: The required areas are polished & smoothen to ensure colour effect, if required paint by base colour paste
- b) Applying base Colour: The wall is coloured by desired texture & colour
- c) Sketching: Marking layout of theme & basic shape
- d) Painting: Drawing objects & Applying colour to shapes
- e) Coating: Applying protective coating for painted area

❖ **Painting on Cloth & Canvass:** Done on canvass & apparel

Canvass is prepared by colouring with Cow dung colour or red mud colour. Painting with White Colour with specific Theme.

Production Method similar with reference to traditional. Few Advance techniques implemented to make painting more durable for different types of cloth & designs

**Preparation:**

- a) Base Colours (If required): Preparation of thick colour paste for applying on cloth/canvass
- b) Painting Colour (desired Colour): Preparation of Liquid/fabric colour for painting
- c) Coating Liquid: Coating layer on painting to protect painting from dust/water/sun/detergent etc.
- d) Brush & Colouring Instruments: Preparation appropriate Tools (brush Size & marking instruments, etc.)

**Painting:**

- a) Base Preparation: The required areas is painted by base colour paste (if required)
- b) Applying base Colour: The wall is coloured by desired texture & colour
- c) Sketching: Marking layout of theme & basic shape
- d) Painting: Drawing objects & Applying colour to shapes

❖ **Wall Painting:**

Interior & Exterior Wall Painting

Production Method similar with reference to traditional. Few Advance techniques implemented to make painting more durable for modern Walls (Cement etc.)

**Preparation:**

- a) Base Colours (Maroon/Cow Dung Colour): Preparation of thick colour paste for applying on wall



- b) Painting Colour (White Colour): Preparation of Liquid White colour for painting
- c) Coating Liquid: Coating layer on painting to protect painting from dust/water/sun etc.
- d) Brush & Colouring Instruments: Preparation appropriate brush Size

**Painting:**

- a) Wall Preparation: The wall is coated by base colour paste to make smooth background for painting.
- b) Applying base Colour: The wall is coloured by desired texture & colour
- c) Sketching: Marking layout of theme & basing shape
- d) Painting: Drawing objects & Applying colour to shapes

❖ **Raw material & Tools:**

Tradition of Warli Painting is ancient and there are environmental & nature influences the raw material & tools used. (As changes in resources availability, traditionally painting is done with naturally available resources). Although Regular research & innovation is done in area of identifying optimized material & tools for making painting, Bellow listed methods are indicative to get basic idea.

❖ **Traditional Painting:**

Warli painting draws with help of naturally and easily available ingredients. As time passed, there are some changes happened in Warli paintings. Nowadays, painting also made on canvas & range of other products. Rice paste which used is perishable so that gum is used for binding purpose which preserves this art for life time. To Some artists used poster, acrylic colours instead of rice paste. The bamboo stick also replaced by drawing brush. Commonly used instruments are

- Shen (Cow dung Mixture with Water)
- Geru / Lal Mati (Earth Mixture with water)
- Pitha cha Rang (Rice Powder Paste)
- Bamboo Stick (Brush)
- Canvass or Base Material

**Commercial Painting:**

To Improve Performance, finishing & Art product quality Latest Technology, tools & Techniques are incorporated keeping same cultural motive of Warli painting. Few typical Instruments are listed below.

- Poster/acrylic/Fabric or Suitable colour for surface finish Similar Colours
- Colour binding Agent (Gum, adhesive, etc.)
- Pencil, Marker, Brush
- Thread, Scale, Rounder, Templates
- Wood Finishing Instruments
- Transparent coating Agent (For protection)
- Wood Cutting, finishing & polishing instruments
- Paper, cloth, Cutting instruments
- Packaging material & instrument
- All supporting instruments for mass production

**(J) Uniqueness:**

Uniqueness of Warli painting:

- **Ingredients:**  
Warli painting make with all natural ingredients is an important unique feature of Warli painting. (i.e., Mud, cow dung, Rice paste etc.)
- **Basic Geometry Shape:**  
Warli Painting makes use of basic geometries like triangle, square, circle & line. All these shapes are come from close observation of nature
- **One colour Paintings:**  
Warli painting is a unique art which made with help of natural ingredient and only one colour i.e. white on brown background of earth and cow-dung
- **Cultural values:** Most important as ritual practice
- **Communication Script:**  
Researchers & Tribal tradition expert says Warli painting is not just Painting or art; it is the script by which tribal people share the various stories of life. Traditionally used as mode of telecommunication to pass message
- **Different than other Folk Paintings:**  
Warli Paintings are very different from other folk and tribal paintings in India. Their themes are not mythological, nor their colours as bright as the ones seen in Madhubani Paintings. Neither do they contain the robust sensuality of the paintings found in Eastern India. Instead they are painted on mud; cow dung based surface using Natural colours in white.
- **Story of tribal life:**  
These paintings show tribal's daily life, their battle to survival in difficult conditions. We can say that Warli paintings are not just paintings; it is a wordless story of tribal's life.
- **Human being & Animal Shape:**  
Shapes are used to draw human being and animals are totally different from shapes from other traditional paintings.

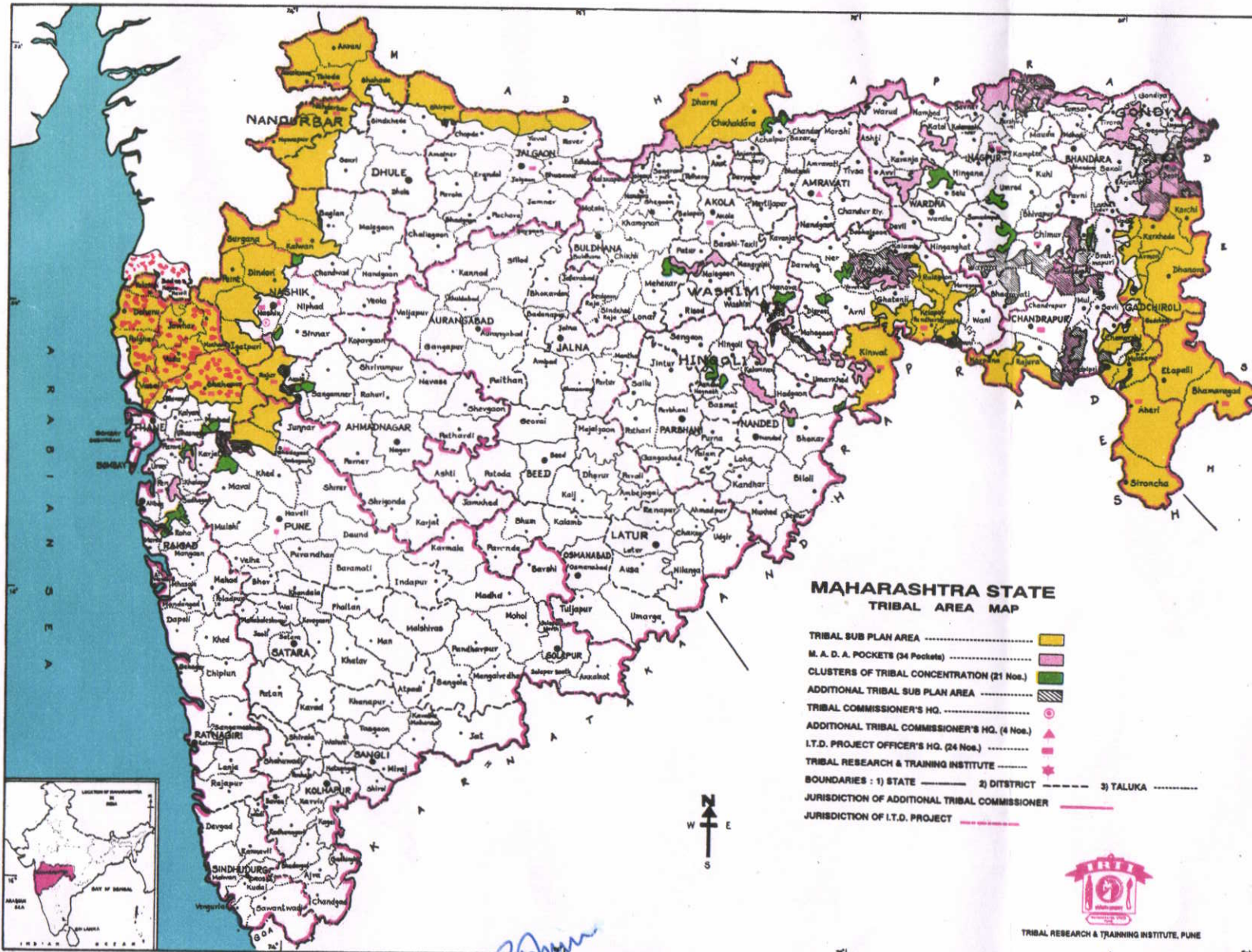
**(K) Inspection Body**

In order to control the quality and to inspect and to maintain the quality, a Quality Control body as mentioned below is being established, which is autonomous with members who have gained authentic and creditable performance and experience in Adivasi Culture & Warli painting Tradition.

No.	Role	Representatives	Responsibilities
1	Suvasin	2	Member
2	Chaukerya	2	Member
3	Artist	2	Member
4	Researcher	2	Member
5	Writer	2	Member
6	Awardee	2	Member
7	Adivsai Yuva Seva Sangh	2	Member
8	TRTI, Maharashtra	2	Chairmen
9	TRTI, Gujarat	2	Vice Chairmen
10	Warli Art Foundation	2	Co-ordinator

# Annex 8J

Warli Population



- ① Maharashtra
- a) Daharu 19° 57' N 72° 46' E
- b) Malasuri 20° 7' N 72° 57' E
- c) Jawhar 19° 39' N 73° 5' E
- d) Vikramgad 19° 47' N 73° 5' E
- e) Mokhada 19° 54' N 73° 21' E
- f) Wada 19° 39' N 73° 19' E
- g) Shahapur 19° 39' N 73° 19' E
- h) Bhivandi 19° 16' N 73° 2' E
- i) Palghar 19° 42' N 72° 46' E
- j) Vasai 19° 23' N 72° 51' E
- k) Murbad 19° 15' N 73° 23' E
- l) Ambarnath 19° 11' N 73° 11' E
- m) Kalyan 19° 14' N 73° 7' E
- n) Ulhas Nagar 19° 12' N 73° 9' E
- o) Thane 19° 13' N 72° 58' E
- p) Borivali 19° 13' N 72° 51' E
- q) Kalvan 20° 57' N 73° 38' E
- r) Sargana 20° 33' N 73° 38' E
- s) Peth 20° 20' N 73° 36' E
- t) Igathpuri 19° 41' N 73° 33' E
- u) Pen 18° 44' N 73° 5' E
- v) Korjat 18° 55' N 73° 19' E
- w) Dharmpur 20° 32' N 73° 10' E
- x) Umargam 20° 10' N 72° 45' E
- y) Pardi 20° 52' N 72° 35' E
- z) Kaprada 20° 20' N 73° 3' E
- a) Dangs 20° 47' N 73° 46' E
- b) Vansad 20° 76' N 73° 07' E
- c) Chikhali 20° 75' N 73° 07' E
- d) NH 20° 15' N 72° 59' E
- e) Daman & Diu 20° 24' N 72° 50' E

TSP Area

*[Signature]*  
Cultural Officer

Tribal Research & Training Institute  
Maharashtra State, Pune-1

*[Signature]*  
Director  
Tribal Research & Training Institute  
Gujarat Vidhyapith, Ahmedabad-380015

Advertised under Rule 41 (1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 54 dated 28<sup>th</sup> November 2013

**G.I. APPLICATION NUMBER – 240**

Application Date: 29-07-2011

Application is made by **Kolhapur Sheti Utpanna Bazar Samiti**, Shri Shahu Market yard, Kolhapur 416005, Maharashtra, India provide for Registration in Part A of the Register of **Kolhapur Jaggery** under Application No: 240 in respect of Jaggery, falling in Class – 30 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) **Name of the Applicant** : **Kolhapur Sheti Utpanna Bazar Samiti,**
- B) **Address** : **Kolhapur Sheti Utpanna Bazar Samiti,**  
Shri Shahu Market yard, Kolhapur 416005,  
Maharashtra, India
- C) **Types of Goods** : **Class - 30 – Jaggery.**
- D) **Specification:**

- Kolhapur is the main market for Jaggery in the country as it ranks first in qualitative terms and second in terms of quantity. Sugarcane seeds preserved by the Farmers' community by age old practice form the prime factors for good quality Jaggery.
- Kolhapur jaggery contains no chemicals. It tastes sweet and has longer shelf life as compared to the Jaggery produced in other areas of the country.
- Jaggery is rich in Iron, Calcium, Carotene and other minerals and contains vitamin A, B and C.
- In Ayurvedic medicine system jaggery is used preferentially in medicine. It is used as medicine for problems such as acidity, cold and cough, joint pains, urinary tract and bowels; invigorates tones and improves digestive power; and cures itching and prameha, thus useful to cure many more diseases.
- Jaggery is widely used in the Indian cooking including those of the South Indian and Gujarati cuisines, like rasam, dal and sambar. In addition to its consumption in the raw form, it is used in the traditional dishes where it lends a touch of sweetness to the sour and spicy preparations.
- It is used in the preparation of alcoholic beverages and to make items like candy, toffees, jaggery cakes and other similar sweet preparations like chikki.
- Its regular usage is advocated in the daily diet as it is a healthy and unrefined form of sugar.
- Jaggery is used for the coating of insides of a tandoor oven to enable better flavor of dishes.
- Jaggery is also used as animal fodder.

Main Forms of Kolhapur Jaggery:

- Solid Jaggery
- Powder Jaggery
- Liquid Jaggery (kakvi)

**E) Name of the Geographical Indication:**

**KOLHAPUR JAGGERY**

**F) Description of the Goods:**

- Kolhapur jaggery is white and golden (reddish brown) color chemical free, pure and hygienically produced.
- Made from fresh sugarcane juice gives permanent sweet taste
- No added color, non harmful and recommended chemicals, additives and flavors
- Natural sweetener and contains glucose, vitamins, calcium, minerals.
- It conveys/suggests that the Geographical Origin is the entire area of Taluka Kolhapur, Dist. Kolhapur, Maharashtra, India.

**Appearance of Goods:**

- Kolhapuri Jaggery has an attractive appearance, various in shapes, excellent taste, attractive yellowish golden colour and good transport quality.

**G) Geographical Area of Production and Map as shown in page no. 92 :**

The rivers having their origin in Saydhari Mountain ranges flow calmly, long distance and with high speed on Kolhapur plateau. The land from these areas is formed from basalt rock disintegration. The Kasari River stream is wide and receives its water source from a fairly large triangular area lying between watersheds of the Vishalgad range because of which its river basin has become quite big and wide. Also, the depth of the Bhogavati river basin is increasing in the middle area and the floor gets increasing in width and when Tulsi and Kumbi River met Bhogavati its valley floor has widen more. Because of the uniqueness of the rivers basins that they are quite big, deep and wide, huge amount of alluvial soil is stored in its river basin and on both sides of river bank which is rich in high quality soil and abundance of minerals and thus, make the land of Kolhapur fertile and unique, making it highly rich and beneficial for cultivation of quality sugarcane.

**Geographical Possition:**

1. Latitude : 16 - 43'N
2. Longitude : 74 - 14'E
3. Elevation : 574 m above MSL

**H) Proof of Origin (Historical records) :**

Maharashtra is famous in jaggery production business since, 18<sup>th</sup> century. Kolhapur was famous for its Kolhapuri gud. In 1886 Chatrapati Shauh Maharaja took efforts for establishment of First market yard of jaggery for its all requirement and services fulfilled by them. Kolhapur is famous in our country and globally for a quality jaggery .In Kolhapur division out of total production of sugarcane nearly 27% used for jaggery production. But, at state level only 11% of sugarcane used for jaggery production. In Maharashtra other than Kolhapur division Karad, Nira-Baramati, Daound-Indapur, Sangli are also produce the quality jaggery (together with its neighbouring districts Sangli and Satara for the production of best quality of jaggery.)Today Jaggery from Kolhapur are

being exported in great quantities Europe, Middle East Asia, and parts of South East Asia. (In 44 countries).

**(I) Method of Production:**

The quality of Jaggery is determined by quality of sugarcane and the process of Jaggery making. Few important Factors affecting quality and marketing of Jaggery produce are as shown below:-

- **Soil**
- **Variety of Sugarcane**
- **Irrigation**
- **Fertilizer**
- **Maturity**

**Soil:**

Elevated, well-drained soils are well suited for growth of Sugarcane crops. Salt free(less than 0.5%) Loamy Soil is preferable for obtaining good quality sugarcane. PH level of soil 6.5-7.5 is necessary, in this kind of soil Sugarcane rapidly grown up. Therefore quality of Sugarcane juice remains good. From that kind of sugarcane we can manufacture good quality of Jaggery and that type of Jaggery can be stored for long time.

**Variety of Sugarcane:**

The best varieties of Jaggery and its product should possess physiological Characteristics like few nodes, long inter nodes, low proportion of rind tissue, yellow white Colour, and soft stem at the same time it should have high sugar with low molasses, coloring and colloidal materials. Large number of sugarcane varieties have been screened for jaggery and the following varieties have been found suitable for making of jaggery:

Early:	1) COC671Vasant;	2) CO 8014 Mahalaxmi;	3) CO 7219 Sanjivani
Mid late:	1) COM 7125	2) CO 740	3) COM 88121
Late:	1) CO 740	2) COM88121	3) CO 7527

Varieties with brix hydrometer reading of more than 19 and purity of more than 85% are suitable for making jaggery.

**Irrigation:**

In water management total requirement of water is depend on sugarcane crops. Water supply at the right time and in equal proportion is essential and for the field constricton all these things are important. Sugarcane is long term crop. Therefore, Sugarcane need to 52h.cm, without seasonal sugarcane needs 300 to 325h.cm, year gap sugarcane required 325 to 350h.cm . Generally soil needs water after 50% of evaporation water from the soil. Sugarcane crops needs water in summer after every 10 days, in rainy season rains may not or less at that time 14 to 15 days and in winter after 18 to 20 days. It depends on the growth of sugarcane crop at the first stage crop needs 5h. cm, at the time of fast growth crop needs water 7 to 8h.cm. And at the time of maturity 5 to 6h.cm crops required water. Modern irrigation methods are also useful for sugarcane crops as well as it help to save water. Before 15 days of cutting the sugarcane supply of water is stopped.

**Fertilizer:**

Fertilizer application should be as per soil analysis of N P K levels. Out of total expenditure on production of sugarcane 30 to 35 % spent only on fertilizer. For it we should know scientifically method for which fertilizer, at which time and which manner is necessary. After soil analysis use of chemical and organic fertilizer in equal balancing is necessary.

**Maturity**

For the production of quality jaggery have in need of good quality sugarcane juice and its all depend on maturity of sugarcane. If jaggery is made from immature sugarcane its result of low quality production jaggery and it is also not good for storage. Therefore, after the maturity cutting of sugarcane is starting.

**Processing and Manufacturing of Jaggery:**

- Sugarcane being the only ingredient of jaggery is produced on a large scale in Kolhapur. The seeds to be sown for the sugarcane crop are specially selected which are useful for the manufacturing of jaggery. The cutting of the cane takes place after a year when the crop of sugarcane is fully developed. Because of the value of the soil and the geographical atmosphere of Kolhapur, It adds to the sweetness and its long-lasting capacity of the cane. The most important aspect of the jaggery units in Kolhapur is that they are situated in the farms itself. Therefore the transportation of the cane takes place immediately to these jaggery units. This not only saves the time but the transportation cost and also benefits the farmers.
- Because of the cutting and immediate utilization of the cane for the production of jaggery in the units maintains the freshness of the cane juice. This immediate utilization maintains the quality of the juice and maximum quantity of the juice can be extracted.

**Steps Involved for the Manufacture of Jaggery:****PART A**

- Firstly the fresh sugarcane is crusher in the sugarcane crusher and the fresh juice is extracted and the same is properly filtered to maintain the quality and hygiene. This extracted juice is stored in the tank. The pH of this juice is approximately 5.2 to 5.3 and the same is stored for 2 to 3 hours. The deposits and insoluble impure substances get separated automatically as the juice is kept stable.
- After storing, the juice is heated in a churner at boiling temperature. The said churner has a capacity of 1000 liter. The juice pH value is averagely recorded as 4.8 to 6.0. Calcium carbonate (150- 200gm /1000litre) developed ladyfinger podwer/ sibblings is mixed in this said churner along with **baggies**. This helps to remove the impurities. First dirt (**Dhor** dirt) is removed at this stage when the temperature reaches 85<sup>0</sup>C.
- The juice is further boiled in the churner. The juice pH is averagely recorded as 5.5. Phosphoric dilute acid (without arsenic) 150-200 ml/1000 Lt. is mixed in the juice contained in churner. At this stage, second dirt (**Son** dirt) is removed at 99<sup>0</sup>C.
- The above mixture of juice is then used to prepare Liquid Jaggery(part B) and solid jiggery (part C)

**PART B-Liquid Jaggery Making Procedure:**

- The temperature of the liquid jaggery in the churner is maintained at 105-106<sup>0</sup>C.
- This hot syrup is cooled down in the churner.
- This clod syrup is kept stable for 72 hrs in packed barrels. This helps to removes the impurities.
- The pure syrup is then is boiled giving low heat and citric acid (0.04%), potassium meta bisulphite (0.01%) or benzoic acid (0.5%) is mixed in the same. This removes all the impurities.
- This clean syrup is then filled in the clean liquid jaggery germ free bottles and the bottles are sealed to make them air tight.
- The information is labeled on the said bottles and kept in the storages, which thereafter, reaches traders and consumers.

**PART C-Solid Jaggery:**

- The above juice (as described in part A) is further boiled in the churner and edible oil 200ml/1000 Lt. is mixed in the same. The temperature of the syrup is 106<sup>0</sup>C. The said syrup solidifies when it reaches 118-120<sup>0</sup>C. It is then inspected properly and the churner is removed from the fire.
- The first stirring of the said hot syrup is done by giving it cold blowing till its temperature drops down to 96<sup>0</sup>C and further, the second stirring till the temperature drops down to 91<sup>0</sup>C.
- When the temperature reaches 76<sup>0</sup>C, the said hot thick syrup is filled in the jaggery containers and thus, the jaggery is ready to consume and stored in clean and hygienic places. The same is purchased by the traders and therefore, by the consumers.
- The Kolhapur jaggery is thus, processed and manufactured in clean and hygienic conditions. No harmful chemicals are used in this process. The sweet and fresh cane of Kolhapur not only maintains quality and endurance, but also adds to its taste making is superior and unique maintaining the important natural nutrients and also making it a healthy to human consumption and body.

**(J) Uniqueness:**

- The perennial rivers that flow down from the mountains brings abundantly along with them making the soil of Kolhapur rich in minerals and increases the nutrient value leads to quality Jaggery.
- The rivers arising from the Sahyadri Mountains having sweet water makes the sugarcane crop of Kolhapur sweet and distinctive.
- The atmosphere of Kolhapur region is 30-37<sup>0</sup>C (winter /summer) and therefore, the sugarcane grows quickly in the humid atmosphere.
- Because of salt free water from rivers, Kolhapur Jaggery's taste, color and its durability is maintained.
- Color body proportion is less in Kolhapur jaggery compared to others, while preparing jaggery. Thus, the colored impurity is easily removed to maximum extent.
- Kolhapur Jaggery contains carbohydrates in large quantity.
- Kolhapur Jaggery is white and golden colored chemical free pure and hygienically distinguishing it from other chemical used jaggery.



- Kolhapur Jaggery contains Glucose, Minerals, Calcium, Vitamins, Iron, Phosphorous, Protein, Copper, etc. vital for human body.
- The traditional jaggery blenders are specialized in the blending it to light red-brown colour as required.
- Kolhapur jaggery is prepared under most hygienically environment and scientifically packed with no added Chemicals, Colors, Additives and Flavors.
- One notable aspect is that the seeds used for sowing of sugarcane are specially made by the name Panchganga after the Panchganga river in Kolhapur because of the the benefits of soil and minerals received from the said river and its sources.

#### 1. **Geographical Area:**

In the sea lap and at a height of sea level ground, on the rich soil of Maharashtra's west side, having a **regul** black soil, Kolhapur is the successor of these geographical attributes. Also, perennial flowing of rivers in the sea lap, wind coming from the sea, hot n humid atmosphere plays an important role in the making of sugarcane.

#### 2. **Humidity:**

The hot and humid climate suits the sugarcane crop the most. It is useful in extracting sugar. The clear sunrays are favorable for the sugarcane growth and the south-west monsoon rains prove useful. The nitrate in the air falls on the soil through rains and thereby, the crop gets a natural nitrate. The grown of sugarcane stays uniform. The atmosphere of Kolhapur region is 30-37<sup>0</sup>C and therefore, the sugarcane grows quickly in the humid atmosphere. It ripens in winter and growth of new sugarcane increases. The yield of sugarcane increases due to abundant rainfall, nutritious hot and humid atmosphere.

#### 3. **Water:**

Sugarcane needs water throughout the year and Kolhapur is blessed with the same. The rivers arising from the sea having sweet water makes the sugarcane crop sweet. The taste of sugarcane is very important for Jaggery and therefore, it is equally important that the water should not be salty. Coincidentally, the rivers that flow down from the mountains brings abundantly along with them rich minerals and Humasta, minute food particles because of which the crop gets sweet salt less water. This develops the jaggery taste, colour and its durability.

#### 4. **Soil:**

For the production of jaggery, it is necessary that the land for the sugarcane crop should be very fertile. For the production of jaggery in the Kolhapur region, the reddish (**regul**) black soil along the river bank which is rich in minerals is used by the agriculturist and therefore, the said particular type of land hold importance in the cultivate a high quality jaggery. Kolhapur is spread on the banks of Panchaganga, Bhogavati, Tulsi, Kumbhi, Kasari, Doodhganga, Varana, etc rivers. The land from these areas is formed from Basalt rock disintegration. Likewise, the red land soil alongside the river bank is highly rich in minerals. During rainy season, these rivers bring with their flow rich minerals, components like humus and make the river banks of Kolhapur rich in soil.

#### **Chemical Free Jaggery:**

In ordinary jaggery, chemicals or used in more or les quantity (Jaggery which is made by chemical mixtures). Because of which the jaggery get dark yellow colour, but it

affects the taste and it reduces its lasting capacity. This chemically made jaggery is harmful for the human beings to some extent. Chemicals like sodium Hydro sulphide, phosphoric acid; etc is used in this jaggery. These days there is a high demand of quality and healthy food. The consumers of all class are aware and concerned about the same and which is their right too. The nutrients remain intact in the non-chemical jaggery. The natural sweetness of the said jaggery increased and keeps its quality intact. Therefore, efforts should be that more and more non-chemical jaggery should be produced and along with India, it should be send to other countries too.

#### **K) Inspection Body**

Kolhapur Sheti krushi Bajar Samiti formed a special inspection body through a resolution by jaggery farmers, it included farmers, agri scientist, legal fraternity and representatives from Government research institutes.

#### **L) Others:**

Jaggery is a traditional unrefined non-centrifugal sugar consumed in Asia, Africa and South America. It is made for direct consumption. This type of sugar is a concentrated product of cane juice without separation of the molasses and crystals, and can vary from golden brown to dark brown in color. It contains up to 65-85 % sucrose, up to 10% Glucose, moisture content of up to 5-8 %, and the remainder made up of other insoluble matter such as ash, proteins and fibers.

The Indian state of Maharashtra is the largest producer and consumer of jaggery. In Maharashtra most vegetables curries and dals contain jaggery. Jaggery is specially used during Makar Sankranti for making sweetmeat called tilgul . In rural Maharashtra, water and a piece of jaggery is given when someone arrives home from working under a hot sun. Kakvi, a byproduct from production of jaggery, is also used in rural Maharashtra as a sweetener. It contains many minerals not found in ordinary sugar and is considered beneficial to health by the traditional medical system Ayurveda. Jaggery made from sugarcane contains vital nutrients like: Glucose, Calcium, Iron, Phosphorus, Protein, Copper etc.

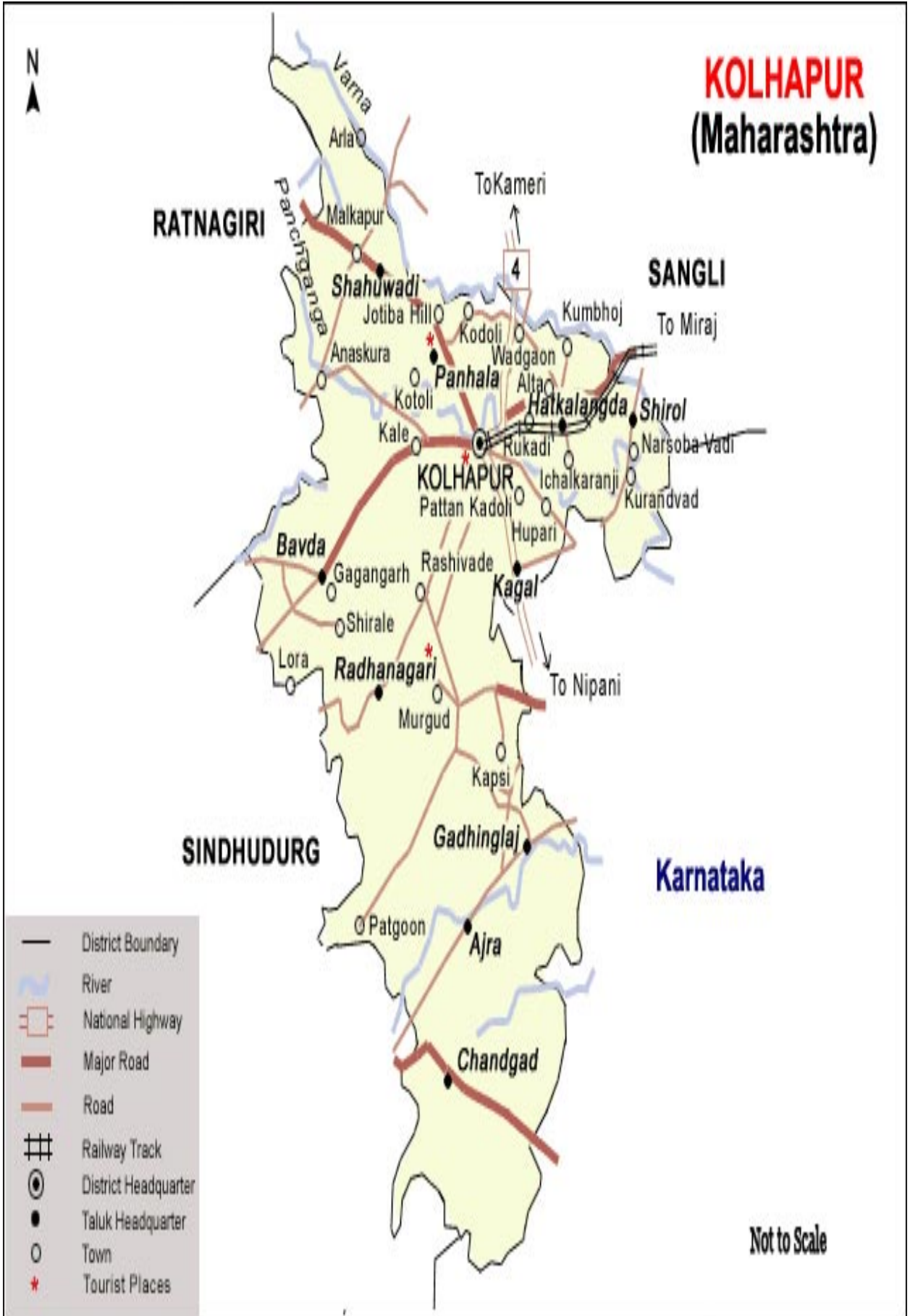
#### **Benefit of Jaggery**

- Jaggery is made in the natural way and no chemicals are used for its processing for which it does not lose its original properties. Hence it is rich in important mineral like salts: 2.8 gms/ 100 grams, whereas only 300 mg/ kg is obtained in refined sugar.
- Magnesium present in jaggery strengthens our nervous system and helps to relax our muscles and gives relief from fatigue and take care of our blood vessels. It also along with selenium acts as an antioxidant property scavenge free radicals from our body.
- The potassium and low amount of sodium present in it maintain the acid balance in the body cells and also combats acids and acetone and control our blood pressure.
- Jaggery is rich in iron, and helps to prevent anemia. It also helps to relief tension take care of asthma as it has anti allergy properties .It is good for migraine and is good for girls those who do not get free flow at the time of their period. Even at the time of post pregnancy it has great benefits to perform to remove all clotted blood from the body of a woman within post 40 days after the birth of a baby.
- The preventive ability of jaggery on smoker's smoke-induced lung lesions suggest the potential of jaggery as a protective food for workers in dusty and smoky atmosphere

even for those who are engaged in woolen industries, the wool dust clogged in the food pipe could be cleared with jaggery. Thus we may conclude saying that those who are exposed to higher levels of pollution. Jaggery helps them to breathe easier and counter pollution problems naturally.

- It has moderate amount of calcium, phosphorous and zinc so it helps to optimum health of a person .along with all its benefits it purifies the blood and prevent rheumatic afflictions and bile disorder thus help to cure jaundice (take pre soaked jaggery juice).
- It is good for Dry Cough, Cough with Sputum, Indigestion, and Constipation too.

Kolhapur is the only place in Maharashtra where near about 25,000 farmers and their dependents are involved in Jaggery production. They produce around 9 lakh quintal Jaggery per year.



Advertised under Rule 41(1) of Geographical Indications of Goods (Registration & Protection) Rules, 2002 in the Geographical Indications Journal 54 dated 28<sup>th</sup> November, 2013

**G.I. APPLICATION NUMBER – 244**

Application Date: 17-10-2011

Application is made by **Rajasthan Thewa Kala Sansthan**, Pratapgarh - 230001, Rajasthan, India for Registration in Part A of the Register of **Thewa Art Work** under Application No: 244 in respect of Precious metals and their alloys and goods in precious metal or coated therewith, not included in other classes falling in Class – 14 is hereby advertised as accepted under Sub-section (1) of Section 13 of Geographical Indications of Goods (Registration and Protection) Act, 1999.

- A) **Name of the Applicant** : **Rajasthan Thewa Kala Sansthan**
- B) **Address** : Rajasthan Thewa Kala Sansthan, Pratapgarh - 230001, Rajasthan, India
- C) **Types of Goods** : **Class - 14** – Precious metals and their alloys and goods in precious metal or coated therewith, not included in other classes.

**D) Specification:**

- The base material is of precious metals like Gold and Silver. However semi-precious metals like copper and alloys of copper with gold may also be used.
- The background of the gold foil (Thewa ki patti) is usually made of basic colours red, green, yellow and blue glass sheets supported by same colour shiny paper placed inside the base.
- The gold used in the foil is usually of 23 Carat.
- The thickness of the gold foil remains less than three millimeter (mm).
- The coloured glass sheet used for fusing with the gold foil is Belgium glass.
- The glass sheet of thickness between 1.5 mm and 2.5 mm is used for fusing with hand-carved gold foil.
- The *Vaada*, Silver ring holds between 3 mm and 5 mm depth.
- The glass surface becomes smooth and unison with the hand-carved gold foil no sign of separate surfaces of glass and the gold foil. The art of fusing the gold foil into the glass surface without using any pasting materials is a secret art limited to only the members of the applicant.
- The union of the hand-carved gold foil with the glass sheet is done without using any kind of glue or pasting material.
- Nature, sight scenes like hunting, animals and birds, like dancing peacock, traditional Rajasthani and Gujarati drawings, Portraits of God, Goddess and members of Royal Families and the narrations, designs and stories register in the *Maru Gujara* paintings are used as drawings for carving out the gold foil.
- All the products are made by the experienced artisans strictly maintaining the specifications and standard. Since the artisans belong to the same clan and use secret art the maintenance of the standard of the products becomes simpler.

**E) Name of the Geographical Indication:**

**THEWA ART WORK**



**F) Description of the Goods:**

Thewa Art work is practiced for a long duration by an exclusive clan of jewelers hold and based in Pratapgarh, Rajasthan.

The Thewa art is application of an artist mind who by profession is a jeweller. It holds the character of a fine art that holds background of royal patronage. Rajasthan and Gujarat have remained Royal States for centuries and the influence of the same is still noticeable. In ancient times Rajasthan was known as *Marudesh* and Gujarat was called Gujarata. The art and different crafts got royal patronage and due to the patronage cultivated and became enriched. The reflection of royalty, socio-economic condition and architecture found place in art and Thewa Art was not an exception to it.

Thewa art work becomes jewellery when applied on items used for jewellery; in fact jewellery can be made of Thewa art like a forehead tika (a traditional jewel used by Rajasthani women). Both the utensils like comb, hairband, coat button, photo frame and jewellery items like necklace, lockets, Ladies Shangar Box, Hair pin, Pendant, Earrings, Photo Frame, Tie Pin, Bracelets, Box, Cuffling, Comb, plates etc. can be made by using Thewa art. The Thewa Art is an intelligent application of art over utility and fusion with jewellery. It can also be said that Thewa art is an extension of jewellery in utility goods. From bridal make-up case to make-up utensils like comb and mirror frames can be made using Thewa art. Similarly both jewellery box and jewellery can have classy Thewa art. In the optional steps, precious and semi-precious stones are applied in artistic manner on the base frame to further decorate the Thewa art work. The base frame may also have coloured getup. Nature, sight scenes like hunting, animals and birds, traditional Rajasthani and Gujarati drawings, Portraits of God, Goddess and members of Royal Families and the narrations, designs and stories register in the Maru Gujarata paintings are the main subjects narrated in the drawings of Thewa art.

**G) Geographical Area of Production and Map as shown in page no.: 97**

The Thewa art is practiced in Pratapgarh district of Rajasthan and more particularly at the Pratapgarh town. The latitude and longitude of Pratapgarh are N 24°03' and E.74°78' respectively.

**H) Proof of Origin (Historical records) :**

During the times of Pratapgarh State the Rajsoni clan was based at Devgarh, a place around 17kms from Pratapgarh where the Thewa art originated.

The history of Thewa Art work goes back to three to five hundred years. Dr. Gori Shankar Hirachand Ojha in his book “*Pratapgarh Rajya Ka Itihas*” has mentioned about Thewa Art. He mentions that on green, red, sky blue colour glass one type of golden beautiful work is made here that is not made anywhere else in India. Dr Manish in his article on *Thewa Art* writes that Pratapgarh sub-division of Chittorgarh was known as Kthal Pradesh in ancient times. The writer mentions that Bishop Hamber who visited India wrote in his book *Narratives of a Journey Though the Upper Province of India* in 1828 that ornaments of gold, silver and enamel are to be procured here, I saw a necklace and bracelets of gold embossed with the twenty-four ‘avtars’ of Indian mythology which were very curious and prettily wrought. The article mentions that the Thewa Art is 400 years old. The article also mentions that Thewa Art is mentioned in Encyclopedia of Britannica. Recently, Limca Book of record has also acknowledged the Thewa Art.

In such work button, cigarette-case types of things are made here on which drawings of historical or hunting etc are made in gold. There are only four-five families that do this work and they do not tell about this work to others.

Quarterly Magazine *Vishwakarma Times* in a special issue on Avtar Vishwakarma Jayanti in Jan-Mar 1985 published an article on Thewa Art.

The Department of Posts, Government of India has released on 15<sup>th</sup> November 2002, a Commemorative stamp of Rupees 5/- on 'Thewa'

**(I) Method of Production:**

Thewa is a traditional craft of fusing 23-carat hand carved gold foil on coloured glass sheet. The Gold foil is first carved on with a pointed object as an art work. To decorate it further, precious and semi-precious stones are applied in artistic manner on the base frame used to support the gold foil fused with the coloured glass sheet. Further in another optional decoration step, the base frame is coloured in artistic manner by glass sheet colour matching shiny paper placed into the inner side of the base frame.

First a few parameters like, the figure/drawing to be drawn, its size and the good at which it is to be applied with, are decided. Then frame for holding the desired art work is made. For the frame, silver wire is made thinner and rectangular to act as the frame of the art work. This frame is known as silver ring or *Vaada*. Then gold foil is cut in a size that is a bit bigger to the size of the *Vaada*. The cut gold foil is clipped from border of the *Vaada* from all sides. This covers the *Vaada* from one side (front side) by the gold foil. The other side of the gold fitted *Vaada* is filled with lac. This is how the first part prior to carving the drawing on the gold foil gets complete.

The Thewa art work on the gold foil is done in three stages, i.e., *Kandarana* (Drawing figures), *Cheerana* (Decorating the carved figure) and *Jaali katana* (Cutting the waste material by removing the not required gold foil portion). A thin pin tipped sharp object is used to draw a figure on gold foil. Then decoration of carved figured is done by carving out designs. Finally the left over portion of the gold leaf is removed from the carved out figures, this is known as *Jaali katana*. The gold foil/leaf at this stage is known as *Thewa Ki Patti*. The impression of the drawing comes on the surface of the supporting lac. Carbon is applied using lamp on a drawing impression surface of the lac and impression of the drawing is taken on a drawing book for drawing record.

The Thewa Ki Patti is now placed on the coloured glass base and heated on an open crucible for fusing the hand-carved gold foil into the glass base surface. A secret trick of heating and cooling is used for fusing the gold foil into the glass sheet. On cooling of the glass base, the Thewa ki paati is found to be fixed in the fused state in the glass sheet. The gold foil is fused on glass sheet in such a way that the gold foil fuses into the glass sheet surface. The glass surface becomes smooth and unison with the gold foil giving no sign of separate surfaces of glass and the gold foil. The glass colored shiny paper/foil is placed into the base frame to hold the Thewa ki patti with base colour enhancement. The vaada makes the inner border that slides into the base frame. The base frame is usually made of silver or gold. The vaada with the Thewa ki patti fused into the glass base, as front side, slides with its back side into the base frame. This makes the complete Thewa art work.

However, the base frame is not required for all the articles made of or decorated using Thewa art work.

In the optional steps, precious and semi-precious stones are applied in artistic manner on the base frame to further decorate the Thewa art work. The base frame may also have coloured getup.

**(J) Uniqueness:**

The gold foil is fused on glass sheet in such a way that the gold foils fuses into the glass sheet surface. The glass surface becomes smooth and unison with the gold foil giving no sign of separate surfaces of glass and the gold foil. The union of the gold foil with the glass sheet is done without using any kind of glue or pasting materials. The art of fusing the gold foil into the glass surface without using any pasting material is a secret art limited only to the artisans of Raj Soni clan. The Thewa Art in itself is practiced only by the male members of Raj Soni clan.

**(K) Inspection Body**

A Quality and Standard Committee comprising of two senior-most members from Rajasthan Thewa Kala Sansthan; General Manager District Industries Centre, Prataphgarh (Raj) and a representative of the Certifying Agency chosen to certify the Thewa art work with the objective of encouraging and ensuring use of standard raw material and quality production of the Thewa items.

A Watchdog Body for the internal quality audit has been formed that includes the State and National Awardee members of Thewa Art.

**(L) Others:**

The members of the applicant have secured eight National and eleven state awards for their fine craftsmanship. For being the maximum awardees in a family the Thewa craftsmen family has been listed in the Limca Book of Records in the year 2011.



# DISTRICT ROAD MAP PARTAPGARH

SCALE - 1: 25000 OR 4 MILE TO AN INCH



REFERENCE

- NATIONAL HIGH WAY SHOWN IN
- BLACK TOPED ROAD
- METALLED ROAD
- GRAVELLED ROAD
- FAIR WATER ROAD

## General Information

### What is a Geographical Indication?

- It is an indication,
- It is used to identify agricultural, natural, or manufactured goods originating in the said area,
- It originates from a definite territory in India,
- It should have a special quality or characteristics unique to the geographical indication.

### Examples of possible Geographical Indications in India:

Some of the examples of Geographical Indications in India include Basmati Rice, Darjeeling Tea, Kancheepuram silk saree, Alphonso Mango, Nagpur Orange, Kolhapuri Chappal, Bikaneri Bhujia etc.

### What are the benefits of registration of Geographical Indications?

- It confers legal protection to Geographical Indications in India,
- It prevents unauthorized use of a registered Geographical Indication by others.
- It boosts exports of Indian Geographical indications by providing legal Protection.
- It promotes economic Prosperity of Producers.
- It enables seeking legal protection in other WTO member countries.

### Who can apply for the registration of a Geographical Indication?

Any association of persons, producers, organization or authority established by or under the law can apply.

The applicant must represent the interest of the producers.

The application should be in writing in the prescribed form.

The application should be addressed to the Registrar of Geographical Indications along with prescribed fee.

### Who is the Registered Proprietor of a Geographical Indication?

Any association of persons, producers, organisation or authority established by or under the law can be a registered proprietor. Their name should be entered in the Register of Geographical Indications as registered proprietor for the Geographical Indication applied for.

### Who is an authorized user?

A producer of goods can apply for registration as an authorized user, with respect to a registered Geographical Indication. He should apply in writing in the prescribed form along with prescribed fee.

### Who is a producer in relation to a Geographical Indication?

A producer is a person dealing with three categories of goods

- Agricultural Goods including the production, processing, trading or dealing.
- Natural Goods including exploiting, trading or dealing.
- Handicrafts or industrial goods including making, manufacturing, trading or dealing.

### Is registration of a Geographical Indication compulsory?

While registration of Geographical indication is not compulsory, it offers better legal protection for action for infringement.

**What are the advantages of registering?**

- Registration affords better legal protection to facilitate an action for infringement.
- The registered proprietor and authorized users can initiate infringement actions.
- The authorized users can exercise right to use the Geographical indication.

**Who can use the registered Geographical Indication?**

Only an authorized user has the exclusive rights to use the Geographical indication in relation to goods in respect of which it is registered.

**How long is the registration of Geographical Indication valid? Can it be renewed?**

The registration of a Geographical Indication is for a period of ten years.

Yes, renewal is possible for further periods of 10 years each.

If a registered Geographical Indication is not renewed, it is liable to be removed from the register.

**When a Registered Geographical Indication is said to be infringed?**

- When unauthorized use indicates or suggests that such goods originate in a geographical area other than the true place of origin of such goods in a manner which misleads the public as to their geographical origins.
- When use of Geographical Indication results in unfair competition including passing off in respect of registered Geographical indication.
- When the use of another Geographical Indication results in a false representation to the public that goods originate in a territory in respect of which a Geographical Indication relates.

**Who can initiate an infringement action?**

The registered proprietor or authorized users of a registered Geographical indication can initiate an infringement action.

**Can a registered Geographical Indication be assigned, transmitted etc?**

No, A Geographical Indication is a public property belonging to the producers of the concerned goods. It shall not be the subject matter of assignment, transmission, licensing, pledge, mortgage or such other agreement. However, when an authorized user dies, his right devolves on his successor in title.

**Can a registered Geographical Indication or authorized user be removed from the register?**

Yes, The Appellate Board or the Registrar of Geographical Indication has the power to remove the Geographical Indication or authorized user from the register. The aggrieved person can file an appeal within three months from the date of communication of the order.

**How a Geographical Indication differs from a trade mark?**

A trade mark is a sign which is used in the course of trade and it distinguishes goods or services of one enterprise from those of other enterprises. Whereas a Geographical Indication is used to identify goods having special characteristics originating from a definite geographical territory.

## THE REGISTRATION PROCESS

In December 1999, Parliament passed the Geographical Indications of Goods (Registration and Protection) Act 1999. This Act seeks to provide for the registration and protection of Geographical Indications relating to goods in India. This Act is administered by the Controller General of Patents, Designs and Trade Marks, who is the Registrar of Geographical Indications. The Geographical Indications Registry is located at Chennai.

The Registrar of Geographical Indication is divided into two parts. Part 'A' consists of particulars relating to registered Geographical indications and Part 'B' consists of particulars of the registered authorized users.

The registration process is similar to both for registration of geographical indication and an authorized user which is illustrated below:

