Handloom Sector of India

“Our problem being to form the future, we can only form it on the materials of the past; we must use our heredity, instead of denying it.” - T.S. Eliot

1.1 Evolution of Handloom Sector in India

India has a rich tradition of handloom weaving since time immemorial with the earliest evidences going back to the Indus Valley civilisation.

Various written treatise pertaining to the Rigveda, Ramayana, Mahabharata, Thalia (by Greek historian Herodotus) and Kautilya have mentioned not only spinning and weaving but also the high quality of silk and cotton.

Export of handloom products, as early as the fifteenth century was reported, followed by Vasco da Gama’s visit to India thereby opening of trade routes for Europe. Further, Jean-Baptiste Tavernier’s memoirs from the seventeenth century mention Burhanpur in Madhya Pradesh as hub for international trade with exports to Egypt, Poland, Russia and the Gulf region. Further, it is said that by the end of the seventeenth century, 83% of The East India’s Company trade accounted for clothing exports. Summing up this robust trade, Daniel Defoe stated that “everything that used to be made of wool or silk, relating to either the dress of women or the furniture of houses, was supplied by the India trade”.

With the advent of the Industrial Revolution, the British began executing a protectionist policy in order to restrict import of handwoven cloth from India (to Britain) while dumping their machine made clothes, in India, from Lancashire. Towards the end of the nineteenth century, the cotton textile sector suffered from a range of challenges from economic recessions to natural calamities. In fact, for the period ranging end of the nineteenth century and the first three decades of the twentieth century, there was an ongoing tussle between dumping of British mill products versus Indian hand woven textiles with the rising call of Swadeshi goods.

Despite such adversity, Indian artisans have stood the test of time and have kept this great craft alive. Over the centuries, handlooms have come to be associated with excellence in India’s artistry in fabrics. Fabrics and designs were influenced by geographic, religious and social customs of a region. Different parts of India have produced distinct styles – muslin of Chanderi, Varanasi brocades, Rajasthan and Orissa have given tie and die products, Patola sarees from Patan, himroos of Hyderabad, phulkari and Khes from Punjab, Daccai and Jamdani from Bengal, traditional designs from Assam and Manipur like the Phenek and Tongam. Indian handloom designs and weaves have been famous world over and it is important to ensure sustenance of our cultural heritage.
1.2 Women’s empowerment through financial independence

Indian handloom sector is ancient and has served the economy well in terms of employment. The sector is very important from the point of view of its size and employment potential. The relevance of the handloom sector in the agrarian economy is massive because of its linkages with crucial and sensitive sectors like agriculture. It uses agricultural products as raw materials and, therefore, provides an ever-ready market for agricultural produce. Therefore, in an economy where majority of people still rely on agrarian sector for their livelihood, the significance of handloom is well understood.

Secondly, it is a sector that directly addresses women’s empowerment. As per the present census, the sector engages over 23 lakhs female weavers and allied workers. The handloom sector is largely household-based, carried out with labour contributed by the entire family. Therefore, the engagement of a large number of women (over 70% of all weavers and allied workers are female) in any capacity in this sector has ensured direct remunerations for them, thus empowering them through financial independence and improved self-worth both within and outside of their homes.

1.3 Key milestones for the sector

August 15, 1947 marked a turning point for the handloom weavers of India. Mahatma Gandhi’s use of Charkha, the spinning wheel, as a symbol of national regeneration and the subsequent focus on the handloom weavers during the freedom movement was largely responsible for the breakthrough.

The dawn of Independence provided an opportunity to accord priority treatment to the handloom sector. At the time of Independence, there were about three million handlooms in India, largely of poor quality because of inferior raw material and ill-organised marketing infrastructure. The situation worsened in 1952 due to a slump in the textile market. The All-India Handloom Board was reconstituted seven years after its dissolution in 1945, to advise the Government and propose schemes for the development and survival of handlooms.

With a view to raising funds for the sector and organising weavers’ cooperatives, Parliament had passed the Khadi and Other Handloom Industries Development Act in 1953. To facilitate marketing of fabrics made in the handloom cooperatives, a national level apex body called the All India Handloom Fabrics Marketing Cooperative Society was set up in 1955. The Weavers Service Centre and the Indian Institute of Handloom Technology were set up to provide infrastructure back up in the vital areas of applied research, service and training.

The Handloom and Handicrafts Export Corporation of India Ltd (HHEC) was set up in 1958 to promote export of handlooms. In 1976, the Government appointed a high powered study team and on its recommendations the Office of Development Commissioner for Handlooms was created at the Centre to ensure a scientific growth of the handloom sector. Since then the Office of the Development Commissioner for Handlooms has been implementing various developmental and welfare schemes for the benefit of the handloom weavers. To ensure a steady supply of raw materials such as yarn, dyes and chemicals to the handloom sector, the National Handloom Development Corporation (NHDC) was set up in 1983.

1.4 Major interventions by Government of India

Ministry of Textiles through the Office of the Development Commissioner for Handlooms is working for the sustainable development of the handloom sector by implementing
various developmental, promotional, and welfare schemes. The principal objectives of these schemes is to promote production and marketing of high quality and high value handloom products and thereby increase the earnings of weavers and other workers associated with this sector. Skill up-gradation, infusion of new and contemporary designs, product diversification, technology upgrades, improved access to subsidised raw materials, access to low interest credit, common infrastructure development, brand building, marketing assistance including promotion of e-Commerce platforms and linking handloom with high-end fashion, are but some of the major interventions initiated by the present Government. The following sections provides a more in-depth look at some of the flagship initiatives that have created significant impact on the lives of those associated with the production of handloom cloth.

1.4.1 Block level cluster
The block level cluster scheme aims at integrated and holistic development of identified handloom pockets through various interventions like skill up-gradation, Hathkharga Samvardhan Sahayata (HSS), construction of individual work sheds, design and product development, creation of Common Facility Centres, etc. with GoI assistance to the tune of Rs.2 crores per cluster. While funding for most components is 100%, there is additional funding to the tune of Rs.50 lakhs available for setting up one Dye House in a district to ensure availability of quality dyed yarn for weavers. The cluster projects are taken up upon recommendations from the State Government.

1.4.2 Skill up-gradation
Skill up-gradation training and exposure is given to weavers and allied workers for learning new weaving techniques, adaption of new technology, development of new designs and colours, learning about new types of eco-friendly dyes and dyeing practices, exposure to basic accounting and management practices, familiarisation with e-commerce, etc.

1.4.3 Hathkharga Samvardhan Sahayata (looms and accessories)
HSS aims to improve the fabric quality and improve productivity through adoption of upgraded looms/jacquard/dobby, etc. Under this scheme, 90% of the cost of looms and accessories is borne by Government of India but the implementation is done with the full involvement of respective State Governments.
1.4.4 Work shed
The construction of individual work sheds envisages providing a working space for the entire weaver family close to their home. The unit cost for these sheds are Rs.1.2 lakhs and marginalised households and female weavers are eligible for 100% financial assistance.

1.4.5 Engagement of designers
There is a provision for engaging professional designers in the block level clusters and beyond to design new innovative designs and products. The scheme not only pays for their fees, but further outlay is available for providing additional remuneration to designers for establishing marketing linkages.

1.4.6 Yarn supply
Under this scheme, yarn is supplied at mill gate price to weavers to compensate them for the high cost of transportation from mill gate to their workplace. In addition, 10% price subsidy is provided on cotton, domestic silk, woollen and linen yarn in hank form so that handloom weavers can compete with power- looms in pricing. To facilitate regular and timely supply of yarn, yarn depots have been opened in handloom concentrated areas. To reduce delivery period and also facilitate delivery of small orders, warehouses have been opened in all States having significant handloom presence.

1.4.7 MUDRA loan
Under this scheme, working capital and term loans at 6% interest rate is being provided through banks. To leverage these loans, margin money up to Rs.10,000 is also provided. The Ministry also bears the credit guarantee fee to be paid to the banks to encouraging lending. The Online Handloom Weavers MUDRA portal has been developed for Direct Benefit Transfer of margin money to weavers’ accounts and interest subvention and credit guarantee fees to banks.

1.4.8 Learning opportunities
To empower weavers and to enable the youth from weaver families towards career progression, MoUs have been signed between Ministry of Textiles and National Institute of Open Schooling (NIOS) and Indira Gandhi National Open University (IGNOU). Under this agreement, both NIOS and IGNOU have designed distant education courses relevant for the handloom sector. The ministry provides 75% subsidy on the course fees for SC, ST, BPL and female weavers for handloom weaver families.

1.4.9 Bunkar Mitra helpline
“Bunkar Mitra” helpline for handloom weavers has been set up with a toll free number of 1800 208 9988 to provide single point of contact to handloom weavers across the country for addressing their professional queries. The service is available in seven languages viz. Hindi, English, Tamil, Telegu, Kannada, Bengali, and Assamese. The services are available all seven days of the week.

1.4.10 Welfare measures
Under welfare measures, handloom weavers are covered under Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), and Mahatma Gandhi Bunker Bima Yojana (MGBBY) (for those in the age group of 51 – 59 years). Under these schemes, weavers are required to pay only Rs.80 to enrol in these schemes while the rest of the premium is borne by Government of India.

1.4.11 Certification
The Handloom mark was launched in the year 2006 to provide a distinct identity to handloom products. The India Handloom Brand (IHB) was launched in 2015 for branding high quality handloom products. IHB aims to provide a bridge between the weaver and the consumer, giving the former higher earnings and the later, an assurance of quality. All the products under the IHB are benchmarked for quality of the raw materials, the processing besides providing the origin from the handwoven sector. Various prominent brands like BIBA, Peter England and ONAYA have already launched exclusive range of handloom garments with IHB.

1.4.12 Marketing assistance
Expos and District level events are organised regularly to provide a marketing platform to the handloom weavers. Weavers are also facilitated to participate in various crafts melas held across the country. Marketing incentive has also been provided to Handloom agencies. As a new initiative, 23 e-commerce companies have been engaged to promote e-marketing of handloom products.
1.4.13 Handloom awards

Ministry of Textiles has been annually conferring various awards like Sant Kabir Award, National Award and National Merit Certificates, towards excellence in weaving, design development, and marketing efforts.

In addition to the above, State Governments also have their own schemes where they have earmarked significant outlays from their State budget towards betterment of weaver households in their State. These are initiatives over and beyond the centrally sponsored schemes which they partner in beneficiary identification and implementation. Some of the States with prominent schemes of their own include West Bengal, Tamil Nadu, Telangana, Andhra Pradesh and Chhattisgarh.

Given below are links on the following subjects:
(i) Short films on handlooms; (ii) Handloom Weavers success stories; and (iii) A State-wise list of Handloom weavers/agencies:

(i)
https://drive.google.com/drive/folders/1fTd2FORr2mPs5sMjccxkcvWpbGC_3?usp=sharing
(ii)
https://drive.google.com/drive/folders/1C9pamPRyjP90Ww7ehiyD4FG1_2oyPO
(iii)
https://drive.google.com/drive/folders/1hISPqnsEBAhcrW1qa_oakfAbmji6ru
Weaves of Woven Fabrics

Weave is the interlacement of warp and weft yarns to produce a woven fabric. Fabrics are manufactured in wide varieties and designs. The basic weaves are plain, twill and satin. All the others are derivatives of these basic weaves or their combination.

A. Different types of Weaves and their names:

1. Plain Weave
2. Twill Weave
3. Satin & Sateen Weave
4. Honey Comb Weave
5. Huck a Back Weave
6. Crepe Weave
7. Bedford Cord Weave
8. Wefts and Pique
9. Mock Leno Weave
10. Leno Weave
11. Backed cloth
12. Terry Pile
13. Velvets and Velveteens
14. Double cloth
15. Tubular cloth

Details of each weave are as follows:
1. **Plain Weave:**

Plain is the simplest weave, in which warp and weft threads interlace in alternate manner as shown below, giving maximum number of interlacements. This maximum interlacement imparts firmness and stability to the structure. At least two ends and two picks are required to weave its basic unit. A minimum of two heald frames are required for this weave. It is used in cambric, muslin, blanket, canvas, dhoti, saree, shirting, suiting etc.

Plain weave

**Plain weaves are basically three types. They are:**

a) Warp Rib  
b) Weft Rib  
c) Matt Weave

**a) Warp rib:**

Warp rib is a modified form of plain weave. It has 1/1 interlacements in the filling direction, which differs from the simple plain weaves. This modified interlacement results in the formation of cords, ridges, or texture across the warp direction of the fabric. It requires two heald frames at least, but multiple of these can also be employed. The number of weft yarns in a repeat unit of this weave is equal to the sum of the digits in formula of warp rib. For example, 2/2 warp rib requires 2 warp yarns and 4 weft yarns. Design of the above-stated warp rib is shown below. Warp rib is also known as ottoman.
b) Weft rib:

Weft ribs are another modified form of plain weave. It has 1/1 interlacements in the warp direction, which differs from the simple plain weave. This modified interlacement results in the formation of cords, ridges, or texture across the weft direction of the fabric. It requires two heald frames at least, but multiple of these can also be employed. The number of warp yarns in a repeat unit of this weave is equal to the sum of the digits in formula of warp rib. For example, 2/2 weft rib requires 2 weft yarns and 4 warp yarns. Design of the above-stated weft rib is shown below. Weft rib is also known as half panama.

![Diagram of Weft Rib (2/2)](image)

Matt weave:

This type of weave is constructed by extending the plain weave in warp and weft directions at the same time so that two or more threads work alike in both directions. In this weave, the same size of squares appear on both sides of the fabric showing the same number of warp and weft yarns on front and back of the fabric. Matt weave is also commercially known as basket, hopsack, or full panama. Design of the 2/2 matt weave is shown below.

![Diagram of Matt Weave (2/2)](image)
2. **Twill Weave:**

Twill weave is another basic weave, which is well known for its diagonal line formation in the fabric due to its interlacing pattern. This weave and its derivatives are used for the ornamental purposes. Twill has closer setting of yarns due to less interlacement imparting greater weight and good drape as compared to the plain weave. In simple twill, the outward and upward movement of the interlacing pattern is always one that imparts a diagonal line to this design. The direction of the propagation of twill line classifies twill into right-hand or left-hand twill. Twill weaves find a wide range of application such as drill cloth, khakhi uniforms, denim cloth, blankets, shirtings, hangings and soft furnishings.

**Derivatives of Twill Weave:**

i. Broken twill
ii. Diamond design

iii. Elongated design

iv. Shaded twill

v. Zigzag/waved/pointed twill

vi. Combined twill

vii. Herring bone twill

i. Broken Twill:

This is obtained by breaking the twill line of regular twill. It is somewhat similar in appearance to Zigzag twill. Broken twill can be obtained in different ways. At first, basic twill is divided into two sections, then the first section unchanged and the second section is reversed.

![Broken twill diagram](image1)

ii. Diamond Design:

It is a derivative of twill weave. It is obtained by combining horizontal and vertical zigzag twill. In this weave pointed design is obtained.

![Diamond design diagram](image2)

iii. Elongated Twill:

Normally, the twill angle is 45 degree where the ends and picks per unit area are
equal. But in elongated twill, the twill angle is more or less than 45 degree.

iv. Shaded Twill:

By shaded twill, we can create shaded effect on fabric. The shade effect is created by the combination of some thick to thin twills or thin to thick twills.

![Shaded twill](image)

v. Zigzag/waved/pointed Twill:

It is the simplest and one of the most important modifications of twill weave produced by reversing the direction of twill at suitable interval. A point is selected (usually the last warp is selected) as the reversing point and so it is sometime called as pointed twill. This twill is produced by combining S and Z twist. According to reversing of direction, there are horizontal and vertical zigzag twill:

![Horizontal zigzag twill](image)
vi. **Combined Twill**

In these types of weave, two different types of continuous twills are combined together alternately. The combination may be warp way or weft way. The angle of twill is influenced by the method of combination.

vii. **Herring Bone Twill**

Herringbone, also called broken twill weave, describes a distinctive V-shaped weaving pattern usually found in twill fabric. The pattern is called herringbone because it resembles the skeleton of a herring fish. Herringbone-patterned fabric is usually wool, and is one of the most popular cloths used for suits and outerwear. Tweed cloth is often woven with a herringbone pattern.

3. **Satin & Sateen:**

Satin/sateen is a basic weave that does not have any regular pattern like twill. The surface of the fabric is either warp or weft faced. Satin is warp faced, which means that all the surface of the fabric will show the warp threads except for the one thread interlacement with other series of yarn. If it is weft faced, then it will be known as sateen, which means that fabric surface will show the weft threads mostly. These weaves have the least interlacement points among the basic weaves. Due to this reason, it gives the surface of fabric more lustre and smoothness. With this weave it is possible to use a cotton warp and silk filling, having most of the silk appearance on the surface of the fabric. It is used in sarees, blouse materials, dress materials, bed spreads, furnishing fabrics, curtain fabrics etc.
4. **Honey Comb Weave:**

This name is given to this weave due to its honey bee web-like structure. It makes ridges and hollow structures, which finally give a cell-like appearance. In this weave, both warp and weft threads move freely on both sides, which coupled with rough structure. The fabric made by this weave has longer float all over the fabric. Due to this reason, it is radially absorbent of moisture. This property made these weaves useful for towels, bed covers, and quilts. This weave is further divided into three types which are explained below. Most commonly, these weaves are constructed on repeats which are multiple of four in ends and picks.
5. **Huck a Back Weave:**

This weave is largely used for cotton towel and linen cloth. It has longer floats in two quadrants, which make them more moisture absorbent. This weave is combination of longer floats of symmetric weaves in two quadrants and plain weaves in the remaining two quadrants. Plain weave gives firmness to the structure, while longer float weave increases the absorbency of fabric, making it suitable for the above-stated purpose. Sometimes, longer float symmetric weaves are used in combination of plain weaves in huck a back weave, which is also termed as honey comb huck a back weave.

6. **Crepe Weave:**
Crepe weave refers to the weave that do not have any specific pattern. The weave may contain a little bit appearance of twills, but they do not have the prominence. They make small patterns or minute spots and seed-like appearance all over the fabric surface. The weave may be used separately or in combination with other weaves. Crepe weave is frequently employed in making the ground of the figured fabrics. In simple words, crepe weave is used to make a rough appearance. If we make crepe weaves with crepe yarns, this combination will give more remarkably pebbly or puckered appearance.

7. Bedford Cord Weave:

This is a special class of weave that forms longitudinal warp lines in fabric with fine sunken lines in between. This fabric is used in suiting for ornamental purposes. The method to construct this weave is simple. The repeat of the weave is calculated by multiplying the cord ends by two. The resultant value will be the total number of ends of the weave repeat. The pick repeat is four for this weave. The weave repeat (warp ends) is divided into two halves to construct it. The first and last ends of both the halves are treated as cutting ends. Plain weave is inserted on these cutting ends. These plain ends behave as sunken ends in the Bedford cord.

8. Welts and Pique:

A pique weave consists of plain face fabric, which is composed of a series of warp and weft threads along with a series of stitching threads. This weave is unique due to the formation of horizontal lines (weft wise). This weave requires two beams, one for the plain weave threads and the other for stitching ends. The word “welt” is concerned to the pique construction, when the indentations make deep or hollow (sunken) lines appear in the cloth.
9. **Mock Leno Weave:**

This weave is much similar to a gauze-type fabric. The weave is constructed in four quadrants. The first and third quadrants have symmetric weave, and the second and fourth quadrants have opposite weave to the symmetric weave. The perforated fabrics are made by this type of weave. This effect is achieved by reversing the symmetric unit of the weave in the alternate quadrants. So, these weaves are produced in sections that oppose each other.

10. **Leno Weave**

Also known as Gauze or Cross weaving, Leno weave is a weave in which two warp yarns twist and grip tightly around the weft yarns. This makes for a more open weave that can be woven tightly for shirting or left completely loose to resemble netting or mesh.
11. **Backed cloth:**

The weave combines 2 or more different weaves but the weave on one side is not visible on the other side. For example: sateen on face side and twill on back side is woven with appropriate stitches. Using this weave, 2 different types of yarn can be woven on face and back side of fabric. For example; linen on face side and cotton on back side can be woven. This combination will give good comfort to the wearer and along with elegant appearance.

12. **Terry Pile:**

This weave is unique in nature by producing loop piles on the fabrics. These weaves are used in toweling fabrics. More popularly these towels are known as Turkey towels or terry towels. These towels are more popular for their water absorbency.

13. **Velvets and Velveteens:**

These are cut pile fabrics more popularly used for rich furnishing and made up fabrics. They are also used for jewel boxes, car upholstery etc.

14. **Double cloth:**

Double cloths are fabrics, in which there are atleast two series of warp and weft threads each of which is engaged primarily in producing its own layer of cloth, thus forming a separate face cloth and a separate back cloth. The purpose of the construction is to improve the thermal insulation value of a fabric with smart face appearance. Double cloths are used as different types of decorative cloth such as sofa cover, furnishing cloth, curtain fabric, bed cover, pillow cover and other home textiles. It is also used for the production of winter garments, quilts, belts, different types of industrial fabrics etc.

a. **Self-stitched double cloth**

These fabrics contain only the two series of threads in both directions and the stitching of the face cloth layer to the back layer is accomplished by occasionally dropping a face end under a back pick or by lifting a back end over a face pick or by utilizing both of the above systems in different portions of the cloth.
b. Centre-stitched double cloths

In these fabrics, a third series of threads is introduced either in the warp or in the weft direction whose entire function is to stitch the two otherwise separate layers of cloth together. The center threads lies between the face and the back cloth for the purpose of stitching oscillate at regular intervals between the face and the back thus achieving the required interlayer cohesion as shown at the following figure.

15. Tubular cloth:

It is a double cloth woven without stitching points between the face and back fabrics. When we take out the fabric from loom, it will be a tube made-up of fabric.