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Building Sustainable Rural Women Entrepreneurs

in Assam & West Bengal

Handloom Value Chain



भारतीय बैंक प्रबंधन संस्थान
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1. Status of Handloom Sector

1.1 Overview of Handloom Industry in India

Handloom is a centuries-old traditional weaving practice in India in which fabric is produced on a loom by hand. It has been a key part of India's cultural and economic legacy for millennia and continues to play an important role in the country's textile industry. This industry's operations are mostly based in households, where many family members collaborate to produce goods. These activities, which entail passing skills from one generation to the next, are dispersed among thousands of cities and villages across the nation. Every region in India that uses handloom weaving has its own handloom traditions, patterns, textures, and motifs. The weavers of this industry are keeping alive the traditional craft of different states. The level of artistry and intricacy achieved in the handloom fabrics is unparalleled and certain weaves are still beyond the scope of modern machines. Most of the handloom units are run either as sole proprietors or on partnership basis. Amongst the many strengths of the sector include minimal use of capital and power, environment-friendly production processes and flexibility to innovate and offer products as per market requirements. According to the latest Handloom Census (2019-20), in India there are 31.45Lakh households associated with handloom and allied activities. Total of 26.73 lakh numbers of weavers was enumerated for the census. Nearly 12.69Lakh and 5.42Lakh handloom households are engaged in weaving and allied activities in Assam and West Bengal respectively.

The sector contributes 6% of GDP and 13% of exports. The industry's manufacturing setup is second largest in the world, after China. The industry employs more than 3 million people in direct and allied activities (IBEF, 2022). Out of which majority of them are women workers, with a share of 72.29 percent as per the Handloom Census (2019-20). The industry has an installed capacity of 512 lakh spindles, 8.6 lakh rotors, 0.68 lakh looms in organized sector, 25.23 lakh power looms and 23.77 lakh handlooms.

Some of this industry's advantages include the availability of inexpensive and plentiful labour, the use of local resources, low capital expenditures, distinctive skill in product manufacturing, and growing recognition by international consumers. Despite these distinctive qualities, the business only makes up a small percentage of Indian exports and the world market, necessitating efforts to promote and refocus the industry's offers in order to unlock its untapped potential.

1.2 Major Handloom Clusters in India: Assam and West Bengal

State(s)	Product Speciality Work	/Major Clusters
Assam	Sualkuchi	Guwahati
West Bengal	Carpet Weaving	Darjeeling

Source: Human Resource and Skill Requirements in the Handlooms and Handicrafts Sector, KPMG

1.3 Geographic Distribution of the handloom value chain across the two states

According to the 4th Handloom Census, the handloom sector is dominated by women in Assam as compared to West Bengal and India. In Assam, almost 91 % of the persons involved in handloom are women as compared to 72 % in India and 54% in West Bengal.

Handloom weaving is ubiquitous across Assam. However, some of the districts where it is more concentrated based on the number of weavers are: Goalpara, Lakhimpur, Dhemaji, Dibrugarh, Jorhat,

Majuli, Golaghat, Cachar, Kamrup (M), Kamrup Rural, Nalbari, Baksa and Udalguri . These districts are also important because most of the interventions for handloom value chain have been taken up in the above-mentioned districts under ASRLMs. However, districts with highest production of handloom in meters are Udalguri, Baksa, Nalbari, Kokrajhar, Karbi Anglong. When it comes to the production of handloom cloth Kamrup, Golaghat, Nagaon, Dhubri, and Barpeta tops the list.

Besides, handloom Assam is renowned for producing some of the best silk fabrics in India and has a long history of silk weaving. The golden-hued muga silk, which is exclusive to Assam and renowned for its tensile strength, softness, and gloss, is the state's most well-known silk fabric. The Eri silk, Pat silk, and Muga silk are a few other well-known silk textiles made in Assam.

Assam ranks 3rd amongst raw silk producing states in India contributing over 80% of Muga silk and over 65% of Eri silk produced in India. Karbi Anglong, Baksa, Dima hasao combine have about 40% of the total number of government farms centre in Assam. Dhemaji has the highest area under food plant for both government and private sector, followed by Kamrup (& kamrup M), Baksa , and Udalguri. Karbi Anglong, Dhemaji, Kamrup Rural comprises of about 44% of Assam's total number of food plant both government and private sector (see Annexure- Table 1). The state houses more than 13 lakh looms out of the total 28 lakh looms in the country. Sualkuchi in Assam is known as the Manchester of the East and is world renowned for its unique Assam Silk. 98 Weavers Extension units and 20 Handloom Production Centres produce 65.3 thousand metres of handloom fabrics in the state. Silk production in the state for 2021-22 was at 5,700 MT (IBEF, 2022).

For the development of Eri and Muga silk industries in the state, the Government has initiated Assam Silk Outreach Mission and by 2025, this mission aims to produce 1 million kg of Muga silk & 10 million kg of Eri silk. Further, in 7 districts of the state, Integrated Sericulture Development Project is being applied, out of which 3 districts are for Eri whereas 4 districts are for Muga.

According to a report prepared by IIT Guwahati (2021), Kamrup, Sivsagar, Charaideo, Lakhimpur, Majuli, Biswanath, Jorhat, and Sonitpur are highly potential districts in case of Eri and Muga.

West Bengal's handloom industry is distinguished by the use of traditional techniques and natural fibres such as cotton, silk, and jute. The Jamdani, Baluchari, Tant, and Tangail sarees are the most well-known handloom goods of West Bengal, and they are known for their exquisite designs and patterns. In recent years, West Bengal's handloom sector has experienced issues like competition from machine-made fabrics and diminishing demand for traditional handloom materials. However, efforts are being made to revitalise the sector and conserve its traditional techniques and cultural legacy.

According to the Directorate of Textiles (Handloom, Spinning Mills, Silk Weaving & Handloom Based Handicrafts Division), Government of West Bengal, parts of Nadia district, Hoogly district, Burdwan district, and Bankura district are mainly handloom concentrated districts of West Bengal.

1.4 Key characteristics of the Handloom Value Chain – Findings from the field

Social profile of the weavers

Women have been at the forefront of promoting handloom textiles and raising awareness about their cultural and economic importance. According to the Handloom census, in India 72% of the workers associated with handloom are women. Assam has the highest proportion of women involved in the sector (92%) which is more than the national average. West Bengal on the other hand have 58% of women involved in the sector.

As per the primary data, most of the workers are Hindu in both states. Similarly, in terms of their social status, most of them are OBC (63%) in Assam as opposed to 100% SC in West Bengal. In Assam, the SC numbers are very few. However, there is also a significant numbers of ST households (22%) which are involved in handloom in Assam.

In terms of education, majority was educated only upto Class X level; 79% for West Bengal and 76% for Assam. In terms of age, weavers of Assam are more younger than their counterparts in West Bengal. The numbers of weavers in the age group 21 – 50 is 96% in Assam as compared to 91% in West Bengal for the same age group.

A large number of weavers are involved in handloom only in both the states. (67% in Assam and 60% in West Bengal). Only the remaining have more than one economic activity. This pattern has an adverse impact on the income of the weavers. More on this in the economic profile section of this report.

Characteristics of the enterprises in the value chain

Idea of the Business:

68% of the participants have inherited handloom as a part of family legacy. 16% of the women have gained this idea as a part of Exposure visit to their places. 9% of the women have adopted handloom by imitating their friends and relatives.

Nature of Enterprise:

Out of the total respondents in both the states, 99% of them own their enterprise single handedly. 1% of the respondents have a shared enterprise. This shows that women in all these districts have the potential to further develop their business, provided they receive some support

Registration/Trade license:

According to the primary data, 98% of the participants have not registered their business and neither do they have any license. 3 of the respondents have Udyami License. Out of all the participants of both the states only 2 of them have GST number. In the case of West Bengal, almost 91% most of them are not registered nor have a license. Only one enterprise is GST compliant. Enterprises which are non-compliant cannot avail of any benefits from the govt and seriously handicaps their growth.

Seasonality in production:

According to the primary data April to June is the highest earning season in Assam and it is around September, just before the festival season in West Bengal. Whereas October to December is the lowest earning season in handloom business both in Assam and West Bengal.

Digital:

The use of ICT in the enterprises is close to non-existent. 88% do not use digital payment or their enterprise. 44% RWEs do not use smartphone.

Economic profile of the weavers

Most of the handloom weavers work as a part-time worker in Assam as compared to West Bengal or even compared to National average. In addition to the part -time nature of the activity, most of them were informal in nature.

Table A: Nature of engagement: (Full Time and part time)

State	Full Time	Part Time	Total
Assam	279508	1004373 (78.2%)	1283881
West Bengal	416742	214705 (34.0%)	631447
India	1788765	1733747 (49.2%)	3522512

Handloom census – 2019-20

Because of the informal and part time nature of business the income received from handloom is very low as both secondary the primary data indicates.

Table B: Showing the income of households from only handloom (in ₹ per month):

Income from handloom only	HHs with income below ₹ 10000	% HHs below 10000
Assam	1246824	98.2
WB	535154	98.6
India	3081470	98.0

4th Handloom census – 2019-20

Income from handloom alone is very less and almost the entire population earns less than Rs.10000 per month. Which is also supported by the primary survey as 82% of the respondents mentioned that they earn around Rs.10000 a month. The primary data also shows that in Assam nearly 80% of RWEs in the handloom value chain earn on an average a monthly income of only Rs 10,000-20,000. 11% earn between 20,000-40,000; 5% earn 40,000-60,000; 4% earn more than 60,000 with just one RWE earning more than 1 lakh. Similarly, in West Bengal 90% of the weavers earn an average monthly income of Rs 10000 – 20000. They therefore need to supplement their income from other sources. Even after this a significant proportion earns below Rs.10000 income per month.

On the other hand, more than 65% of the higher income (from all sources) HHs, (above Rs.50000 per month or above) is in Assam (see Table 2,3) This however drops significantly when only income from handloom is included. This indicates that few urbane entrepreneurs, who are also involved in other economic activities has emerged, who provides input supply as well as market the products and serve as an aggregator. These are increasingly providing value added products usually to a niche segment like marriage ceremonies, special occasion etc.

1.5 Business Models of the Handloom Industry

There are three broad models that we see emerging in the handloom landscape in Assam. (See Annexure V)

a) Traditional Model: The most common business model is the traditional model. This model is most common and is ubiquitous across Assam. Almost 80% of the persons are part of this model. Under this model, the weaver households buys yarn from the open market or spins yarn from cocoon (in case of silk) weave the finished cloth and sells it in the market. Most of the weavers covered under the primary survey comes under this model. Most of the firms under this model are tiny and are in informal sector. Most of the weavers are also part-time. The majority of the women are involved in the lower end of the value chain. However, the potential of growth is limited. The large number of part-time weavers, who are involved in other activities are part of this model. A variant to this model is where one person or a group of persons evolve to be a master weaver and provides yarn to the weaver and procures the finished product from the weaver and sells it in the local market. Although the secondary data

indicates that a large number of Master weavers reside Assam, the primary survey did not capture any Master weaver who is involved in such activity in Assam. In West Bengal however, in some cases the Master Weaver plays the role of the middleman by providing yarn to the weaver and procuring the finished product from them.

b) Collective Model: The second model is the Co-op/Collective driven model where the institution provides the input supply and procures the finished product from the weavers. In case of the collective model, most of the RWE work in the CFC (common facility centre model) where looms are located at one place and the weavers goes there to weave. The finished product is sold through retail outlets which the Co-op/ collective runs. The examples are ARTFED, SHG Collectives under ASRLMs etc. Out of all the respondents from Assam and West Bengal only 16% follow this model. A variant to this model is the primary weavers' cooperative societies which market the produce in the local areas, and hence the volumes are small. Govt intervention is much more predominant in this model as compared to the other two. Most of the schemes under the Central Govt and the State govt are designed for this type of model and taking place in this segment and therefore this model is increasingly becoming important. Most of the investment in terms of capital requirements like advances looms, skill training, and institutional building for providing forward and backward linkages are undertaken by the govt bodies. For example, the handloom value chain promoted by Assam State Rural Livelihood Mission (ASRLMs) follows the collective model. Similarly, the Central Govt schemes under MSME like SFURTI (Scheme of Fund for Regeneration of Traditional Industries) and Micro Small Enterprise Development-Cluster Development Programme (MSE-CDP) is implemented through the collective model through the ministry of MSME and Handloom and Textiles. However, in terms of its outreach, this model only covers a small segment of the weavers. Despite the large govt. interventions and a lot of potential, most of the cluster programmes are floundering. Membership in collectives like Cooperatives or producer companies are still very low in Assam or West Bengal (See Table 4). Most of these members of these clusters are organized into SHGs both in Assam and West Bengal (see Table 4). Except for few cases, productivity is very low and women usually don't spend more than couple of hours at these centres. So, these centres function more on paper than being part of the production and market process. At the national level, some states like Tamil Nadu etc have a fairly large membership in the co-operatives. There are however several challenges associated with such schemes. One of the major challenge has been the poor focus in institution building. Institution building is a complex and multifaceted process that involves range of activities and strategies. The process of creating an institution is ongoing and iterative, and it necessitates the active participation and cooperation of all stakeholders. Other players including governmental institutions, non-governmental organisations, and business partners may also be required for assistance. Successful institution-building involves a long-term outlook, a dedication to teamwork, and the flexibility to adjust to changing conditions and requirements. In recent times, a sustainability of the number of clusters promoted under the govt schemes are in question because of the factors mentioned above.

However, there is a lot of potential of this model if designed and implemented properly as the case of Grameen Silk Producer Company Limited (GSPCL) indicates. This started as a project under Tata trusts and finally with the support of Grameen Sahara, a development institution, a non-profit company was established 2012 and has been successfully working since then with 851 shareholders and with share capital of Rs 37,65,000 (see Annexure-II).

c) Entrepreneur Model: The third model is the entrepreneur driven model where the entrepreneur is in the centre of the value chain and provides the forward and backward linkages. There are two variants under this model. The first one is the evolution of the master weaver from a local market and to a larger market. This is evident mostly in West Bengal where they are involved also as an input supplier and also providing finance etc. Although the secondary data suggests that there are a lot of master weavers in Assam, the primary survey did not capture any such category. Therefore, it can be safely assumed that the impact of master weavers is very little in Assam.

The second variant is the urbane entrepreneur, who may not necessarily come from the handloom background. Here the entrepreneur/master weaver drives the economic activity and more modern method of production is adopted, particularly in designs, advance looms and sometimes even moving to power looms. The case study of Mary Devi illustrates this model very clearly (see Annexure-III). Here, the entrepreneur provides large part of the value-added services like design, dyeing, marketing, raw material supply etc.

A large number of them cater to a niche segment like marriage ceremonies, special occasions etc.

The urbane entrepreneur usually operates micro units which have about 10-12 looms and provide accommodation and fooding facilities so that the weavers spend full shift in weaving thus productivity is higher. Additionally, the entrepreneurs usually have good market linkages.

1.6 Description of Process of the Eri/Muga value chain

The handloom value chain for Eri/Muga starts from eggs to cocoons (Muga approx. 45 days for warmer months to 87 days for winters) 2 of the crops are commercial and rest of the 6 crops cocoon quality is of low grade. Plus, Muga needs a pollution free environment, and any noise or vehicular pollution would result in dying of all silkworm before cocoon formation stage. Comparatively Eri silkworm is very sturdy and survive from dry arid to tropical climate and feed on 6-7 varieties of plants can be raised domestically and better survival rates.

After Eri cocoons are formed they are cut and the silkworm taken out to be sold in the local haats for consumption, while the cut cocoons are sold for spinning of the yarn. Spinning of the yarn are mostly done by hand in Assam, Fabric plus used to machine spun the Eri silk, but for the past many years, even they were sending the cut cocoons to Bangalore for spinning and the finished yarn was sent back to Assam as consumption of Eri yarn is highest in the Northeast.

Yarn hanks are then wound into bobbins for warp and pirns are wounded for weft yarns. Weaving takes place and after that normally calendaring is done to the textile to give it a flat finish and better appearance but finishing processes are not usually done in north-eastern textiles. This is another reason why north-eastern handloom hasn't been able to make its mark in the national and international arena.

The entire value chain is dominated by women except for Muga rearing as this takes place in the tree itself and men are involved in this process. Muga cocoons are bought per cocoon for Rs 1.50 -2.00 each from the rearer and sold to the rearer entrepreneur/sericulture department for anywhere between Rs 5 – Rs 7. The finished handspun muga yarn retails presently at Rs. 28000/- kg (about 4-5k cocoon needed for 1 kg of yarn) while machine reeled yarn retails at Rs. 22000/- kg.

Eri on the other hand, the silkworm is sold at Rs1 -1.50 per worm, cut cocoons sold between 400-700 per kg. Handspun retails at 1800-2200 per kg. while machine spun depending upon the count sells anywhere from 1500-3500kg. As for warping of the loom, each warping ranges from 800-1200/-

Weaving rates varies depending upon the design, though the State government rates are the lowest, for a Gamusa they pay weavers between Rs35-Rs50. For mekhela chadors the rates vary from 600/- for Eri/cotton/polyester etc to Rs 4000/- for the ones which takes about a week to make (these are bulk rates) all overheads are extra (accommodation, fooding etc). For Muga/Mulberry silk, as the weaving gets considerably slower and takes more time and designs are more intricate so actual rates can go upto Rs10,000/- Calendaring rates vary from 25-50 per piece and packaging is extra.

Most of the individual weavers have looms at their homes. They work mostly in the adhi system (barter system) where a person buys the yarn for them and they weave and share the proceeds at the rate of 50-50 on the quantity produced with the hope that weaver will be able to sell their portion to local traders or shops. Mostly gamusa and daily wear mekhela chadors are made by them. Quality is comparatively poor. (Most of these fall in the category of model 1)

The growth potential for model no.1 is limited. The large numbers of part-time weavers, who are involved in other activities mostly agriculture, are part of this model. A variant to this model is where one person or a group of persons evolve to be a master weaver and provides yarn to the weaver and procures the finished product from the weaver and sells it in the local market. According to the 4th Handloom Census, any households with more than 50% of the handloom workers being hired, is construed as a master weaver household.

In case of the collective model, most of the RWE work in the CFC (common facility centre model) where looms are located at one place and the weavers goes there to weave. Productivity is very low and women usually don't spend more than couple of hours at these centres. So, these centres function more on paper than being part of the production and market process. There are only a few exceptions where the collectives are operating successfully.

Micro units have about 10-12 looms and provide accommodation and fooding facilities so that the weavers spend full shift in weaving thus productivity is higher. Plus, the entrepreneurs usually have good market linkages. (Most of these fall in the category of model 3)

1.7 Challenges in the different business models:

a)Traditional Mode of production:

Amongst the three models, the most dominant mode of production is the individual home-based activity. The dominant mode of production adopted is traditional loom (see table 5). The growth potential of this model is limited. The large numbers of part-time weavers, who are involved in other activities mostly agriculture, are part of this model. A variant to this model is where one person or a group of persons evolve to be a master weaver and provides yarn to the weaver and procures the finished product from the weaver and sells it in the local market. We see evidence of this from West Bengal but very little from Assam. According to the 4th Handloom Census, any households with more than 50% of the handloom workers being hired, is construed as a master weaver household.

However, one significant challenge associated with this mode of production is the use traditional loom. As per our primary findings more than 95% of the respondents have stated that old tools and machineries are one of the major challenges in the production process. However, there is also increased awareness for upgrading to more modern method of production as is evident from the requirement. Although they are aware of upgrading to more modern methods, 67% of them point out about the lack of information regarding new tools and how to operate it as a major gap. 98% of them mention the cost of tools as another barrier.

b) Collective Driven Model:

The second model is the Co-op/Collective driven model where the institution provides the input supply and procures the finished product from the weavers. In case of the collective model, most of the RWE work in the CFC (common facility centre model) where looms are located at one place and the weavers goes there to weave. Productivity is very low and women usually don't spend more than couple of hours at these centres. There are also major issues related to the delivery of training etc. Due to low

density and scattered population settlement in Assam, means that weavers often travel long distances to the 'Centre' for getting trained. This affects learning considerably. So, instead of one big centre, a hub and spoke model could be adopted where micro level centres work with 10 -15 weavers. This would make the centres more accessible and making the learning more effective.

A major gap in this process is the absence of handholding following the training. This should be at least for a period of a year for the weavers to acquire a modicum of skills and acquire confidence in their craft. Besides weaving, the handholding would also help them to familiarize themselves with the operations of the machinery related to the advance loom under the guidance of a trained hand. Besides, a handloom CFC (common facility center) requires not only need good weavers, but also production services like jacquard card punchers, graphic designers/ creative talent which come up with new motifs in graphs, jacquard and loom repair persons, managers, common welfare services like helpers, catering services like tea/lunch, basic financial services like savings, loans etc. Usually the focus of these cluster schemes is on capital investment like advance looms, building, some skills on weaving, and some institutional building. The other services mentioned are not provided. This is a major barrier in upscaling the cluster. They could also be used for providing a set of complementary skills, rather than giving weaving skills alone.

c) Entrepreneur Driven Model:

This model is by far the most market-oriented model with the entrepreneur focusing on the demand and curating the products accordingly. However, in this model, the weaver is often exploited and only do not get their dues. They have to work for long hours without suitable compensation. The weavers remain stuck only as workers with no occupational mobility.

1.8 Input Supplies

Most of the procurement of raw materials is from open market. Co-op societies and master weavers do play a significant role in raw material procurement in West Bengal and at the national level, while it is insignificant in Assam (see table 6,).

There are 33 yarn banks in Assam. It provides yarn to individual weavers as well as collectives at a 30% subsidized rate. However, in most cases these are not functioning and the weavers source yarn from the open market. Moreover, the quality of most dyed yarns is not compatible with international standards; colour bleeding of yarn is very common. Innovative yarns like bamboo, hemp etc are not existent in the state.

In Assam, for cotton, we have M/s Orient and a couple of yarn stores in Fancy Bazar, Guwahati which is supplying yarn to the weavers. In the districts there would be a yarn depot or shop catering to the cotton needs.

For Eri silk, Fabric Plus was a major vendor but now after the expiry of the owner, Mr. Dilip Barua, most of the Eri reeling takes place in Bangalore and then yarn comes back to the state and sold by their yarn stores, this has resulted in major revenue loss for the rural reelers/spinners.

This is a major gap as the quality as well as the cost impacts the final product.

1.9 Production and Technology

The most dominant mode of production is the individual home-based activity which is the traditional model. Here, dominant mode of production adopted is traditional loom (see table 5). As can be seen from the (table 5) most of the looms (>90%) are traditional. The data from the primary survey also shows that 95% of the weavers feel that old and traditional machinery is one of the prominent barrier which affects productivity. The average production of major fabric per weaver per day in Assam is only around 5.09 metres and it is 7 meters in West Bengal. Some states like Rajasthan and Sikkim show a much higher productivity with 24.8 & 23.8 meters average production (table 7) However, there is also increased awareness for upgrading to more modern method of production as is evident from the requirement for more advanced looms (table 5).

The collective center model is the next important mode of production. Most of the Govt interventions are taking place in this segment and is increasingly becoming important. Most of the investment in terms of capital requirements like advance looms, skill training, institutional building for providing forward and backward linkages are undertaken by the govt bodies.

Under the third model, where the entrepreneur/master weaver drives the economic activity, more modern method of production is adopted, particularly in designs, looms sometimes even moving to power looms as is the case with Mary Devi. A major problem for low growth in handloom sector in Assam and West Bengal is because of poor productivity due to use of low technology.

The table 5, clearly shows the demand/requirement in terms of modern technology i.e advance looms. Increased awareness by the weavers has led to the demand for advance looms. Mrs Mary Devi in our case study also plans to establish power looms in Mikirgaon Village, Dhemaji to meet the market demand. She however, highlighted the issue of power as the electric looms consume a lot of electricity.

Some problems related to use of power is the erratic power supply. Solar is a good alternative but expensive and still has issues around service. Some tech innovators have made small turbines generating electricity from flowing drain water, but these innovators are not encouraged enough to bring their innovations to scalable sizes.

Under Atal Incubation Centers some innovations are being made, but time is an essence and the time period from proof of concept to final product which can be commercialized takes a long time.

Another issue is related to adoption of technology. Most of the weavers are women are very apprehensive near machinery, so technology upgradation/intervention needs to take place in a step-by-step process. Initially introducing a simple and basic advancement to gradually more complicated machinery. Further, simply providing training how to operate the machine isn't enough, getting them to use persistently for 3-6 months so that they have a working knowledge of the problems/snags and how to solve them during production is of essence. Providing technical training for machine maintenance and repair to local youth so that any problem cropping up can be handled locally instead of depending on the technical assistance from the machine supplier as time delay costs money too.

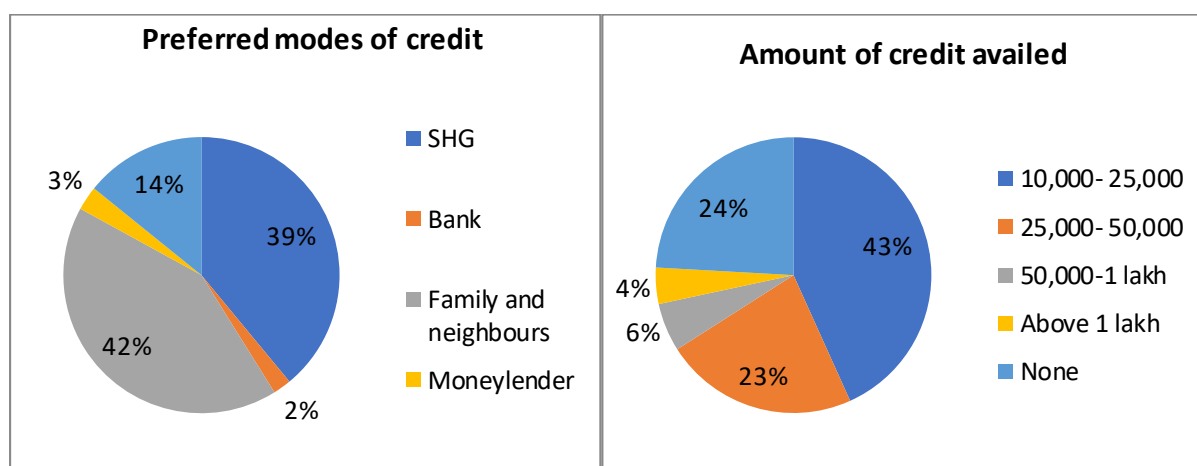
1.10 Investment and Finance

As already stated earlier, as most of the looms are traditional, the small investment that is required for it, is usually done by the HHs themselves. Investment in advance looms (which is a capital expenditure item) like jacquard or semi-automatic loom is usually provided by the govt through various schemes. Most of these are more prominent under the collective model where the

intervention of the govt is more pronounced as compared to the traditional and entrepreneur driven model.

However, it is for working capital requirements, especially in procurement of yarn that the HHs avail loans mostly from informal market. The primary data survey for Assam reveals that SHGs and Family and neighbours are the most preferred source of credit for meeting their working capital requirements. The capital for procurement of raw materials is rarely financed from savings (11.42%). Majority of the respondents take loans from friends and family (88.57%), with just 2.1% reported taking formal loans.

The family and neighbour’s segment actually consists of informal credit groups called *Xonchois*. The informal Xonchoi groups are increasingly replaced by SHGs which has emerged as another important source of loan. In terms of the amount availed as loan majority of the it is in the range of INR 10,000 – 25,000.



In West Bengal, Bank and MFI are the most preferred source of credit and a huge majority of 90% of them preferred Bank credit. However, only 15% of them have availed from MFI and Bank. The amount availed is less than INR 1 lakhs. Master weavers also play a dominate role in providing loans to weavers for buying yarn in West Bengal.

Access to bank is very poor with only a tiny portion having savings account. The situation very poor in case of female weavers from Assam who form the bulk of the weavers in the state.

Table : Data stating the number of weavers having bank account.

State	Male	Female	Transgender
Assam	1823 (1.8%)	80952 (6.9%)	14 (4.9%)
West Bengal	69536 (26.5%)	49145 (13.3%)	0 (0)
India	286976 (29.4%)	336155 (13.2%)	61 (12.4%)

Source: 4th Handloom Census, 2019-2020.

Accessing of banking finance suffers due to lack of banking outlets in the rural hinterland but also because of lack of financial product for the handloom industry. This was highlighted by Shri Ameet Barua, an entrepreneur/trainer involved in the handloom sector. I quote, “Unlike other industry where machinery is the major component of investment, handloom is closer to a retail outlet model. Meaning the major chunk of finance is for stock – cocoons, yarns, finished stock but for this instead of providing a term loan which has a lower interest rates, working capital loan at a higher rate of interest is given. This can be illustrated through a Case Study given below.

Case study: A rural artisan has 2 looms at his home. She reels her own silk purchasing the cocoons from the market. She would need 1,60,000 cocoons in hand to reel the required yarn, and would need about 20 kgs of reeled yarn on both the looms which will be ready for weaving and another 20 kgs of yarn for the weft. The resultant production time to make it into finished textile will be about 2 months. Simultaneously she will need a further stock of cocoon and yarns to be processed so that between productions there is no lag while the first batch of production is being sold at the market. This effectively means that, if we take Mulberry silk, she would need –

Cocoons = 25 kgs @ 3500 = 87500/-

Warp yarn in loom = 20 kgs @ 7500 = 150,000/- x 2 = 300,000/-

Weft yarn = 20 kgs @ 7500 = 150,000 x 2 = 300,000/-

Textile stock = 600 meters x 2000 = 1200000/-

While machinery cost will constitute roughly about 200,000/- maximum working capital requirement will be roughly 20 lakhs which is 10 times the machinery cost. Thus, the problem is, due to the high requirement of working capital. The business model for handloom sector is therefore very similar to that of retail business where stock is the major component. It is very similar to most other core rural enterprises like agriculture, vermi compost, poultry, fisheries etc. This is something that both the govt and financial institution needs to factor in to make the business sustainable.

1.11 Ecosystem players

There are various schemes and policies by the state which influence different stages of value chains. Some of them are:

- i) **Handloom Training Centre: Artisan training:** There are 102 HTCs across the state run by the department of Handloom and Textiles. This is particularly for rural areas to impart training for creating artisans and upgrading skill on handloom weaving, designing, dyeing and so on. Total capacity of the these training centers is 1645 persons per year.
- ii) **Weavers Extension Service Unit:** There are total of 98 such unites across the state where weavers are supplied with yarn and technical assistance. About 15,000 weavers of the state benefitted till now.
- iii) **Handloom Production Centre:** There are a total of 20 production centres in Assam. Its aim is to produce decorative and value added quality fabrics under a common weaving shed, each having about 40-50 looms attached with other improved appliances like draw boy, jacquards, etc.
- iv) **Yarn Banks:** There are 33 yarn banks functioning in the state. It provides yarn to individual weavers as well as collectives at a 30% subsidized rate.
- v) **SIFT:** The Sualkuchi Institution of Fashion Technology has been established to provide in-house training to weavers and unemployed youth across the state. In the year 2019-2020, a provision of Rs 50 lakh was made for this purpose.
- vi) **Marketing:** National level Expo (2013-14); District Level Fairs and Exhibitions; Publicity, advertisements, etc. Artfed and Jagaran are outlets where the handloom and handicrafts are sold in retail.

Besides the above, there are a host of intervention being undertaken by both the central and state govts. The list of the intervention is given in Annexure-IV. Over and above those, we also have the schemes under the MSME ministry like SFURTI, MSE-CDP etc which also play a prominent role in the handloom value chain.

Besides the Central govt, the state govt has intervenes under the Assam State Rural Livelihood Mission (ASRLMs) through a cluster development programmes. The table below gives the interventions under handloom value chain in various districts of Assam.

Project	Area	Beneficiaries	Period	Expected Outcome
Development of Handloom Value Chain	Jorhat, Majuli (Ujani), Lakhimpur (Dhakuakhana)	1000	2017-2019	Development of handloom cluster and weavers will be covered for end-to-end value chain support in cluster approach.
Online marketing of SHGs (includes handloom)	Across state	300	2018 & ongoing	Marketing of SHG products through online platforms like Flipkart, Amazon, GeM, etc.
Promotion of Artisan through training and design development for handloom cluster	Kamrup Rural, Golaghat, Goalpara and ongoing	50 SHG artisans, weavers	2021-2022 and ongoing	Training of SHG members under Handloom activities
Implementation of pilot initiatives on sustainable livelihood opportunities in rural areas through Handloom under ASRLM	Goalpara	100	2018 and ongoing	To promote Handloom Unit

Not many machinery expos are held in the region for the entrepreneur to see the latest innovation in the area. However, the bigger apprehension about servicing of these machines is a major deterrent.

In Assam, the state institutions play a key role in facilitating the required machineries and technical know-how to the handloom workers. They design pit looms, semi-powered electrical looms, throw looms and fly shuttle looms as well. Based on their sample, individual workers as well as cooperatives can purchase at *30% subsidised rate* from them. Moreover, technical support to weavers is provided by the directorate at free of cost.

Cooperatives can approach the directorate for training and technology upgradation too. They provide the technical upgradation without any charge. The directorate itself takes the responsibility to manufacture the required machineries and related products. An average throw shuttle loom cost around *Rs 6,000 at a subsidised rate*. Natural dyeing process, of both cooperatives and individual weavers are provided at free of cost by the directorate workshop. Training of natural dyeing is also provided by them without any charge.

In the private market, Resham Sutra and Brahmaputra enterprise (Manish Jain) are the major vendors from which Govt procures the machines. There is also Mr Sabhapandit, also provides metal frame looms. There are many other players in the market but usually in unorganised sector. Usually, these machines are supplied under Govt schemes and hence most of the cost (90% or more) is met from government.

Under HSS scheme, operated by Weavers Service Centre, govt supports 90% of the cost of these machines. Unfortunately, this scheme is not at all advertised thus the benefits don't get availed by the actual entrepreneurs.

Under the Govt sector, only ARTFED & Tantuj are prominent market players of Assam and West Bengal respectively. More details on them is given in the marketing segment.

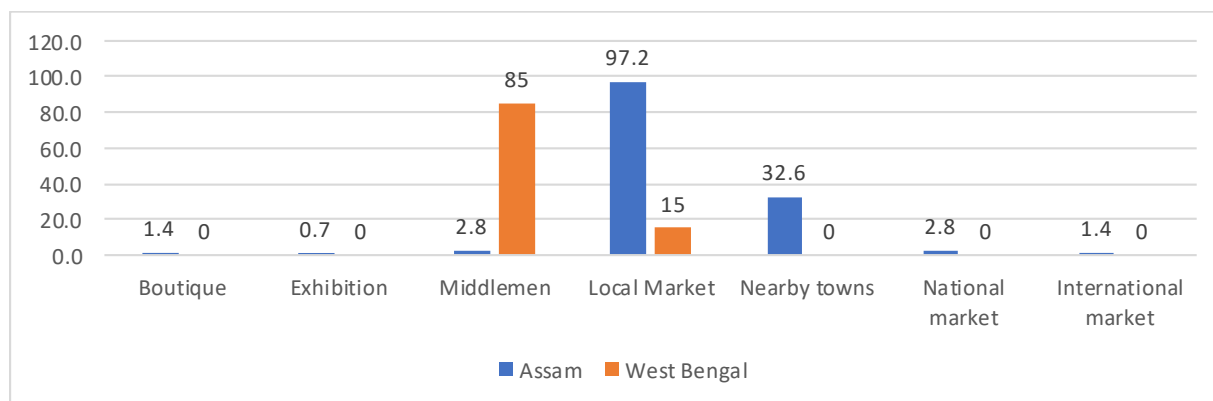
The above mentioned are some of the policies and steps taken by the Central and the State Govt state to develop a comprehensive market and production base for handloom sector. However, most of the time even though the policies and schemes are comprehensive, they don't reach the actual beneficiaries who can utilize them to the max potential, plus red tape is still a major hurdle. Awareness about compliances is very low.

Government has ZED compliance free of cost for entrepreneurs but awareness amongst entrepreneurs is low. For sourcing of yarn, there is NHDC but they have a very limited variety of yarns with them, that too just mulberry silk, for all other yarn, the artisans have to source themselves. Moreover, the quality of most dyed yarns are not compatible with international standards, colour bleeding of yarn is very common. Innovative yarns like bamboo, hemp etc are not existent in the state.

1.12 Market and Sales: Demand and Supply

Data of market is very scarce and there is a need for a separate study to get more information on markets in the handloom sector. The primary survey captured a little on the markets. As can be seen from the figure below, most of the selling in Assam is done in local markets whereas in contrast in West Bengal the selling is done mostly through middlemen. As already discussed, these middlemen in west Bengal also are involved in providing yarn and also finance. Packaging, branding for value addition is almost nonexistent.

Fig : Markets for selling of products



The markets are dominated by the private sector. Estimation of the of the market size is also very difficult. Only information on a niche segment is available. As per primary finding and interview with various stakeholders, we gathered that Handloom products have a niche' wedding market. The size of this market in Assam is roughly around Rs. 200 Crore and there are approximately 30-40 boutiques in Guwahati, Assam are catering to it.

However, for the entire handloom market, only ARTFED & Tantuj under the govt sector are prominent market players of Assam and West Bengal respectively. Assam Apex Weavers & Artisans Co-operative Federation Ltd. (ARTFED) was formed on 27th July 1977 by reorganizing the Assam Apex Weavers Co-operative Society Ltd. with the aims and objects that the Apex Society shall organize Handloom Weaving and other Cottage Industries in the state on Co-operative basis. ARTFED has 55 showrooms (49 in Assam and 6 outside Assam). The revenue figures for ARTFED are not available.

Tantuja of West Bengal on the other hand has 84 showrooms (67 in West Bengal and 17 outside West Bengal) and has 2 crores of revenue in 2020-21 and online sales in 2019-20 are Rs1 crores. These two only constitute a small share of the actual market. Private sector sales still are most dominant with more than 95% share. As far as exports goes, it's not even 1% of the total handloom production. Further, the transaction costs of engaging with a govt marketing enterprises are way too high for the weavers to make any substantial income. Also, the commission rate of 25%+ is way too high to be competitive when compared to states like West Bengal, Jharkhand, and Bihar etc.

Since most the production is on traditional mode, the final product sales is mostly from the unorganised micro entrepreneurs and very few companies have made any mark in terms of quality/quantity in the market. As per our findings in the primary study, 97% of the participants do not have brand/identity of their business. Standardization of products is a major issue.

Further, there are policy implications in marketing. For instance, there is a lack of market awareness that our handloom products are 100% handwoven. The textile ministry has further added to the ambiguity by categorizing all loom textiles including those done on small scale power loom as handloom. For example, Panipat is well known for its handloom home furnishings – consumer assume that it is all handwoven, while each and every piece is made in small scale powerloom, same is the case with Banarasi textiles and sarees made in mechanized power looms. This reduces costs significantly. Thus, market penetration of pure handloom products become an issue because of the increased costs. Similarly, the expos which the pure handloom textiles from the region takes part in, are the ones catering to the mass markets and mostly are flooded with small scale powerloom products as handloom. Whereas we fail to participate in upscale authentic handwoven exhibitions where Paithani Sarees, Zamawars, Jamdanis, Patola sarees are sold. This poor targeting, leads to poor marketing of products from the region.

1.13 Gaps in Service Delivery, access to input and output markets and barriers to growth

Though there are several schemes and support initiated by the Government of India and the state governments, majority of the weaver household members are unaware of the schemes available to enable them in the weaver activities of handlooms. As per the Fourth Handloom Census Report more than 65 percent of the weavers are unaware about the existing schemes, training, and other enablers. There are other constraints also, which includes poor market linkage for the products and exploitation by the middleman, which demotivates the artisans.

Also, to achieve targets, the implementing agencies are not executing/following the processes properly, which result in flawed compliances. The backward and forward linkages are not properly operational in the working areas. For instance, for sourcing of yarn, there is NHDC, but they have a very limited variety of yarn with them, that too just mulberry silk. For all other varieties of yarn, the artisans have to source themselves. Moreover, the quality of most dyed yarns is not compatible with international standards, colour bleeding of yarn is a very common problem among them. Innovative yarns like bamboo, hemp etc. are not still popular in the state. Some of the potential barriers for women in scaling up their enterprise are highlighted below:

a) A major problem for restricting growth is the poor productivity due to the use of low technology. As can be seen from (table 3) most of the looms (>90%) are traditional. Which also supports the data from primary survey, where we observed that 95% of them consider old machinery as one of the prominent barrier for which affects productivity? The average production of major fabric per weaver per day in Assam is only around 5.09 metres as compared to more than 7 meters in West Bengal. Some states like Rajasthan and Sikkim show a much higher productivity with 24.8- & 23.8-meters average production.

b) Along with low technology, low skills in operations of the advanced looms, developing new designs etc is a major gap. There are multiple skills related to production, marketing etc which are needed for ensuring upward mobility. Weavers are deficient in skills related to production i.e use of modern technology like advanced looms, design skills or managerial skills and financial skills. Most of the weavers use traditional skills for weaving and is not exposed to new designs, working with advanced looms, finishing etc.

c) Lack of standardization is a problem. Even after training, measurements are still one by 'hand' and not by feet or inches. Only a few weavers are aware of standard measurements (10/100). This problem on standard measurements by weavers was also highlighted by Mrs. Mary Devi at her unit in Morigaon, Assam. Moreover, branding and packaging also remains a concern. The weavers often face issues of standardization of their products.

d) The weavers demand liquid cash upon delivery of final produce on an urgent basis. The lack of access to finance is a big barrier for them to scale their production.

e) Authentic source of procurement of raw material remains a challenge. Although there are 33 yarn banks in the state, ultimately weavers do not get quality yarns. The quality and specific type of color shade is not available throughout the year in these banks. As they are eventually procured from local weavers, there is a compromise in the quality, color combination issue etc.

f) There are also major gaps in the ecosystem which also restricts growth in the value chain. For example, a handloom CFC (common facility centre) requires not only good weavers, but also production services like jacquard card punchers, graphic designers/ creative talent which come up with new motifs in graphs, jacquard and loom repair persons, managers, common welfare services like helpers, catering services like tea/lunch, basic financial services like savings, loans etc. Usually, the focus is only on weavers with very little importance given to the other services as mentioned. This is a major barrier in up scaling the cluster.

g) Compared to the mainland, in Assam the density of population is low, and our villages are not exclusively a handloom/fishing etc. oriented village. Here each village consists of people engaged in multiple occupations. Due to low density, accessibility is an issue as most of the weavers spend both time and money to reach the center which affects their income. So, instead of one big center, a hub and spoke model could be adopted where micro level centers work with 10 -15 weavers. This would make the centers more accessible. They could also be used for providing a set of complementary skills, rather than giving weaving skills alone.

h) The prevalent patriarchal system also prevents women from expanding their enterprises with most of them involved only part time due to domestic compulsions. A study titled '*Pecarity among Women Workforce in Handloom Sector at Sualkuchi, Assam (2022)*' states that large family size, economic necessity and poverty are the major reasons that women are compelled to take up part time economic activity like handloom, agricultural laborers, and domestic help to supplement their income. In addition to the above, women are also involved in backyard home based economic activity like poultry, fishery, silk, she would need –vegetables etc which supplement the income of households. All of these prevent the women from expanding their handloom activity which is perceived more as a part time activity.

i) One of the obstacles to growth and improvement of the skill is the lack of training and design facilities for the weavers. Most women weavers continue to make traditional designs without any change to a limited product range. Government has initiated ZED compliance free of cost for

entrepreneurs but awareness amongst entrepreneurs is low.

j) High requirement of working capital as stock is the major ~~component~~ of this sector.

k) Local middlemen: Primary survey reveals that 85% of the respondents associated with handloom take the help of middlemen to connect better to the local market in West Bengal. In some cases, some members of SHGs have become the middlemen. There is a need to integrate them into the value chain with more benefits accruing to the weavers

1.14 Way Forward: The Interventions that can be taken up

Following from the above, some of the interventions which can be taken up are as follows;

1. Providing market intelligence:

Market data is unavailable and very difficult to gather. The Handloom Department had tried to commission a study on the markets but failed in the venture. It is therefore imperative that a study be commissioned on the market for handloom products and to maintain it at the centralized level with the state govt. Providing marketing linkages and intelligence to the women will help them earn a sustainable earning from the craft and produce market relevant products. Market studies should also be conducted regularly to understand which products are in demand in the international markets and results should be shared with artisans. Moreover, this shall help the women to level up their participation in the up end of the value chain.

2. Regular Supply of Raw Materials:

Since according to the primary survey, most women expressed the absence of proper raw material supply assistance. A network of yarn banks with easy access to weavers need to be build up. Tie-up with NHDC under a PPP mode could be helpful.

3. Improve Credit Delivery:

Access to credit is an important missing link. The study have shown that most of the credit needs are met from informal sector, SHGs or MFIs. It is therefore important that the credit delivery is with minimum transaction costs and either piggy back on the SHGs or MFIs. There is also a need for coming up with handloom focus credit products which greater emphasis on working capital than term loan

4. Focus on quality standards:

Standardization of processes and compliances with various regulatory requirements is key for the businesses to grow and thrive. The weavers need to be trained in these aspects for coming out with quality products.

5. Strengthen Common Infrastructure Facilities:

To improve the effectiveness of Common Facility Centers, there is a need to have micro units attached to the central hub on a hub and spoke model. This would improve access to the women weavers and make it sustainable. The central Hub would house advance jacquard looms, the design studio, digital design bank, yarn bank, dyeing unit, storage unit, marketing outlet etc.

6. Scaling up marketplaces for handloom products:

As handloom are a major source of attracting for tourists, marketplaces like Delhi Haat, NEDfi Haat should be replicated in the capital towns of NER and also in the tier 2/3 cities. .

7. Develop Comprehensive Database for the sector:

The latest available comprehensive data set on the sector available is the 4th Handloom Census conducted in 2019-20. To be able to regularly review the growth trends in the sector and make appropriate policies, there is a need to have more recent and updated data on the socio-economic indicators of the sector

8. Digitization:

The weavers are exposed to very little digital skills. Digitisation could be used to access services like design, information on input supplies and market trends, accessing financial services and for marketing of products. The digital world can provide a cheap platform for selling of products as the case of Mary Devi clearly illustrates.

ANNEXURES

Table 1 - : Districts with highest Area, plantation Area, Food Plant etc. for production of Eri cocoon in Assam, 2014-15:

District Names	No of govt farms Centre under govt sector	Area under food plant both govt and private sector (in hector)	No of food plant both govt and private sector
Baksa	10	498	2415
Dima Hasao	12	173.75	17115
Dhemaji	3	1064.67	101080
goalpara	5	205.87	19400
Karbi anglong	25	306.46	127784
Kamrup Rural	4	499.11	62375
Udalguri	6	480	6500
ASSAM	120	6733.2	676439

Table2: Proportion of HHs having income from all sources below ₹ 10000 per month:

Income from all sources	HHs with income Below 10000	% HHs below 10000
Assam	1172204	69.8
WB	529011	65.3
India	2933546	67.1

Source: 4th Handloom Census 2019-2020.

Table 3: Proportion of HHs having income from all sources above ₹ 50000 and more:

Income from all sources	HHs above ₹ 50000 & more	% of the total
Assam	2783	64.5
WB	280	6.5
India	4317	100.0

Source: 4th Handloom Census 2019-2020.

Table 4: Displaying the membership in cooperatives, self-help groups and Producer Company:

State	Cooperatives	Self Help Groups	Producer Company	Total	% in cooperatives	% in SHGs	% in Producer Company	% total
Assam	54809	165500	32767	1269506	4.3	13.0	2.6	19.9
West Bengal	30954	29618	11586	542557	5.7	5.5	2.1	13.3
India	397399	303959	117859	3144839	12.6	9.7	3.7	26.0

Source: 4th Handloom Census, 2019-2020.

Table 5: Availability and requirement of looms and equipment in selected districts of Assam:

District	Loom Availability			Loom Requirement			Jacquard Machine	
	Traditional Loom	Fly Shuttle Frame Loom	Semi-Automatic Loom	Traditional Loom	Fly Shuttle Frame Loom	Semi-automatic loom	Jacquard Availability	Jacquard Requirement
Jorhat	94.8	9.4	0	0	88.1	53.7	0	17.0
Kamrup	77.3	21.9	0	62.3	30.7	28.4	1.92	94.23
Majuli	90.4	19	0	10.7	95.2	0	3.57	100
Lakhimpur	95.3	21.6	0	5.9	92.1	2.7	6.45	99.08
Sivsagar	95	6	0	0	94.4	0	5.56	93.89
Sonitpur	97.2	2.7	0	0	94.6	2.7	2.7	97.2
Charaideu	90	33	0	7	80	0	5	95.3
Biswanath	97.2	2.7	0	0	87.5	1.3	2.78	97.22

Source: IIT Guwahati-Apart Repot, 2021.

Table 6: Comparison of procurement of Yarn (in percentage) in Assam, West Bengal with all-India:

State	Open Market	Master Weavers	Cooperative Societies	National/State Handloom Development Society	KVIC/KVIB	Others	Total
Assam	1122902 (92%)	12116 (0.99%)	3082 (0.25%)	2085 (0.17%)	596 (0.04%)	77969 (6.39%)	1218750
West Bengal	42301 (39.8%)	38756 (36.4%)	14213 (13.37%)	1199 (1.12%)	973 (0.91%)	8840 (8.31%)	106282
All India	1707476 (76.6%)	186955 (8.36%)	149606 (6.71%)	22871 (1.02%)	6373 (0.28%)	155173 (6.96%)	2228454

Source: 4th Handloom census, 2019-2020.

Table 7: Weaver Households reporting average production of major fabric per weaver per day (in meters). Inclusive of both urban-rural areas:

State	Location	Average in meters
Assam	Rural	5.09
	Urban	5.89
Haryana	Rural	12.56
	Urban	32.26
Punjab	Rural	14.87
	Urban	23.29
Rajasthan	Rural	24.79
	Urban	16.36
Sikkim	Rural	23.82
	Urban	0
Tamil Nadu	Rural	9.95
	Urban	8.74
West Bengal	Rural	7.74
	Urban	7.22

Source: 4th Handloom Census, 2019-2020

Collective Driven Model Case Study on Grameen Silk Producer Company Limited (GSPCL)**About GSPCL:**

Grameen Silk Producer Company Limited is a non-government company, incorporated on 02 Mar, 2012. The registration number is 10958. It is located in Chaygaon Block of Kamrup (Rural) district of Assam. It's a private unlisted company and is classified as a 'company limited by shares' by the Ministry of Corporate Affairs, Government of India. The company is involved in manufacturing of Eri since the last 12 years. Initially, in the year 2002 the firm started as a project under Tata Trust. The name of the project was 'Golden Weavers Project'. Therein, around 5000 spinners and weavers were involved in the silk manufacturing process. With the support from Grameen Sahara, a development facilitating organisation based out of Chaygaon, in the year 2012, the project got registered as a non-profit company under the Ministry of Social Justice and Empowerment. Currently, the company has 851 shareholders. The shared capital of the company as per January 2023 stands at Rs. 37,65,000.

Growth of the FPO:

Initially, Grameen Silk Producer Company started off with producing only Eri yarn. However, after 2012, a Delhi based company supported them with design and market. Now they have tied up with them as well as with local traders. Gradually they shifted to weaving and started producing products such as sador mekhela, gamusa, jackets, etc. Mostly they opted for natural dyeing process. Buyers also provide their own design. Now, they have built up expertise in producing Eri-Yarn, Mekhela sador, Thaan (plain cloth), Eri shawl, Nehru Jackets, etc.

Village Centers of GSPCL:

There are a total of 22 centers in Chaygaon block.

Profile of the weavers and spinners:

Except for the Chief Executive Officer and Centre Manager who are men, the rest of the employees and workers are women. In total there are 300 active workers (180 spinners, 120 weavers); all female. Most of them are part-time workers contributing 2-3 hours a day. Only 8 of the workers work as full time weavers at GSPCL.

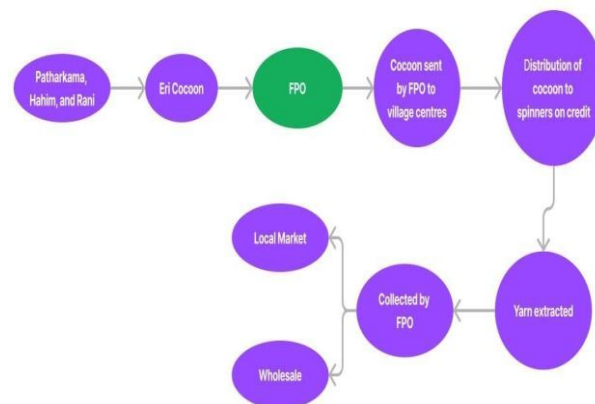
A centre manager oversees the functioning of the centre. He/she also facilitates communication between the spinners and the FPO. 1-3 villages comprise one centre. An average of 120 spinners works at each center.

Demand and Supply:

There is tremendous demand for eri products: saree, stole, gamusa, mekhela sador. A peculiarity of Eri being branded as “Ahimsa silk” because the cocoons are not killed has increased its demand particularly in some Buddhist countries like Bhutan, Tibet etc. Bhutan and Nepal consume a huge number of Eri Silk products for religious purpose. But only 10% of the demand is being met.

Mostly, silk products are sold outside the state. The demand of cotton products at the local market is relatively higher than silk products.

Functioning of the FPO



Eri Cocoon is procured from Patharkama, Hahim, and Rani. They aggregate the cocoon at their FPO and later, distribute it to the village centers. The center manager distributes the cocoon to the women spinners associated with them. Spinners take the cocoon on credit from the FPO. These are done on basis of the time that a spinner is willing to give in a month. On an average, it takes 14 days to extract one kilogram of yarn. On completion of this term, FPO collects it from the spinners by deducting the credit amount. Rest of the money is given to the spinners as their income. Later, the FPO sells the yarn to local markets, wholesale market and as and when demand arises.

Cost of procurement:

Note: One single packet of Eri cocoon weighs 250 grams. Eri insects feed on the leaves of Erapaat, (most healthy), keseru, simolu alu (tapioca).

Rs. 950 per kilogram, (June-October; best quality of cocoons).

Rs. 800 per kilogram, (November-May)

Rs, 95,000 per quintal (average).

Technology Used:

Paddle cum Motorized Machine is used by the spinners which is provided by Central Silk Board to the

FPO at a subsidized rate. The FPO later distributes it to the female spinners at their centers. Till now, 800 machines have been provided in the 22 villages. Moreover, Warping drums and Jacquard looms are also utilized in the FPO.

Income of weavers/spinners:

Income of Rs. 25,000 annually: part time workers.

Income of Rs. 36,000 annually: full-time workers.

Turnover and net Profit of FPO for the last 3 years:

Year	Turnover	Profit
2019-2020	70,97,000	70,000
2020-2021	1,24,00,000	7,47,000
2021-2022	86,00,000	1,52,000

Quality and Pricing of Yarn:

Quality	Weight	Price (In Rupees)
A Grade	1 Kilogram	1200
B Grade	1 Kilogram	800
C Grade	1 Kilogram	700

Market:

Type of market	Areas
Local Market	Bijoy Nagar
Outside region	Bihar, Delhi, Bengaluru
Other	Own showroom

Challenges in the FPO:

Technology:

Need for more innovation Spinning machine (RSTRI) Paddle cum Motorized Machine.

Lack of looms for weaving (only 22 jacquard looms).

Only 8 looms currently at the FPO: products are sold by the FPO directly.

Lack of warping drums.

Designing takes time.

Infrastructure:

Lack of infrastructure for eri cocoon rearers as the women belong to poor households. (in-house rearing of eri).

Finance:

Lack of access to working capital finance constrains the FPO to procure more cocoons and supply them to the reelers. Therefore, despite high demand, they have not been able to expand to the desired

level.

Wastage:

Moisture loss leads to decrease in weight; borne by FPO. For instance, 1 quintal of yarn has loss of 300-500 grams of loss due to release of moisture. This is particularly true in case of Bihar. 20% loss due to release of moisture.

Other challenges:

Spinning and weaving are directly related to agriculture. So, during the sowing season which falls during June-July and harvesting season December-January, the participation of workers in spinning and weaving activity is very low.

Potential of the women workers in Chaygaon:

Women are ready to take up weaving and spinning as a full-time work, provided they are given the training, awareness, and motivation.

Many women work as factory workers due to lack of other opportunities. They have the skill for weaving and spinning.

Out of 20, at least 5 women will take up spinning and weaving as full-time work. There is a huge potential in women for cocoon rearing as well.

Support availed:

Inter cropping method to encourage Eri rearing; Training provided by Grameen Sahara. Jacquard Looms from Central Silk Board.

Recommendations by the FPO:

Need technological intervention to increase productivity. This will lead to increase in income.

Awareness and exposure that women can be successful.

Need full time workers.

Meenakshi Das, a 40-year-old spinner of village Takaradia of Kamrup (rural) district of Assam. She has been associated with the GSPCL and has been engaged in the task of weaving since 2002. She was initially motivated by Grameen Sahara, Chaygaon to take up the task of spinning. She spins for an average of 3 hours a day. She also supports the ASRLM in conducting surveys at her village as an additional source of income. She runs her center which was given to her by the FPO. Currently, due to harvesting season, only 15-20 women are engaged in spinning process.

She procures eri cocoon from the GSPCL at a rate of Rs. 950 per kilogram. It takes her a month to produce 1 kilogram of yarn. 1kilogram cocoon gives 800 grams of yarn. 20% goes as wastage. She later sells the yarn at GSPCL. Her monthly profit stands at Rs. 3000.

She avails the local banking facility to save her income. She also has a Recurring Deposit which she operates herself.

Das mentions that depreciation of technology, especially spinning machines are a concern. A solar powered spinning machine was provided by SELCO-India. However, it has its own demerits. This indicates that improvement needs to be done in case of working capital.

Another woman, Aroti Das, age 65 who works at the centre where Meenakshi works, mentions similar challenges. She adds that servicing of machines and technology upgradation can enhance productivity. Mrs Aroti also mentions that lack of cocoon is another big challenge for the spinners.

Entrepreneurial Driven Model Case Study: Story of Mary Devi



Mrs. Mary Devi is a successful women entrepreneur from Assam and have been conferred with 'Best Entrepreneur in North East' award by the Finance Minister of India Smt. Nirmala Sitharaman. Beginning in a small village in Dhemaji, this Mising woman has achieved tremendous success who can be an example for rural women and rural people in general. Today, she is known for her work and business model and for providing employment to hundreds of rural women in Assam. She has recently taken up membership in ASSOCHAM (The Associated Chambers Commerce and Industry of India)

The formative years:

The idea started in the year 2007. She, along with her husband, decided to open an online portal where she could sell her products. It was the first online shopping portal in Northeast India. Only handloom products were displayed there. She used to procure images of the finished products from local vendors, expo, and even wholesale shops. Demand for products started rising. However, with rising demand, there was a problem. By the time she went to collect products from the vendors, or shops as ordered online, the product would have been already sold. Learning from this she came up with the idea of producing and selling her own products. She decided to begin her production with a group of weavers in her home district, i.e Dhemaji. As demand was high, she sold her products also through social media platforms such as Facebook and WhatsApp. The encouraging sales led her to open a retail shop (boutique) in Guwahati. She also wanted to increase production and productivity. She therefore decided to have a power loom unit at Morigaon. Initially, she invested a sum of Rs 70000. And subsequently applied for a loan of Rs 5.0 lakhs from NEDfi. She was sanctioned and disbursed a loan of Rs 5 lakh within one month in the year 2017. And so, within one month she had the showroom ArtexD opened in Ganeshguri (a prime locality) in Guwahati . She initially started with two power loom units. She currently has 15 power loom units at Morigaon with 300 sq.ft area. A few workers are also provided with accommodation facilities in the campus.

The demand for her products is very high and she hardly has any stock of finished products. She vigorously uses online platforms like Facebook, WhatsApp and IndiaMart are her major marketing channels. She partially procures the raw materials from local vendors and villages from the district of Dhemaji.

During the years, 2017-2020, her average monthly income stood up to 6 lakhs. Till date, her turnover for the last 3 years is slightly more than 2 Crores.

Expansion stage:

In order to expand; in 2020 she approached NEDFi for another loan of 10 lakhs. Her Loan was approved within a month as her CIBIL score was very good. In the same year, UCO Bank approached her and offered her a CC loan amount of 10 lakhs in exchange for a bank account in their bank. However, she did not take the loan, but she opened a business account in UCO Bank.

Size of the unit:

Its carpet area is 3000 sq. ft. and has 15 power looms functioning. A few workers are provided with accommodation facility in the campus. Currently, the Morigaon unit has an employee of 20 people out of which 17 are female and 3 male workers. It includes allied workers as well. Employees are not paid on a salary basis. It is per finished product produced and they earn on an average of Rs 10000 a month on a regular basis. One mekhela sador takes four to five days in a month, for which they get Rs 2000 per finished product. One women weaver brought a scooty in EMI and all their children go to schools, both in government and private sector.

She provides maintenance for all the weavers in her home district i.e in a village called Mikirgaon in Dhemaji district of Assam. These weavers are paid in cash. They use traditional shuttle looms and weave at home. They were initially provided with the raw materials and get their payment after finishing the required amount of final product. She pays Rs 2000-Rs 3000 per mekhela sador, depending upon the fabric used. Currently, she does not provide raw materials to the weavers. They procure them on their own and sell it to Mrs Devi on a slightly higher price. This provides the weavers with some additional income.

Marketing:

On an average, 10 mekhela sador is produced in a month along with other products. It depends on the amount of demand but in the last three years, 2700 sets of mekhela sador have been produced. Other items that are currently produced are mising gamusa, fulam gamusa, kurta, mufflers, shawls, scarfs and traditional jewellery for both men and women. Traditional clothes of all the major tribes are being produced such as Dokhona, Miri Kapur, Mising Dresses and so on. Pure Nuni, Nuni by Cotton, Mulberry Silk, Paat, Muga, Pure Tusar and Pure Cotton.

Future Plan

She is planning to adopt the village of weavers in Mikirgaon, Dhemaji where there is a potential of about 200 women weavers alone. She has already begun the process where a Special Purpose Vehicle (SPV) has been established and functions as a cooperative society. It is a registered society under Societies Registration Act, 1860. She purchased a plot of land, one bigha in the village at an amount of Rs 3 lakhs to set up her second industry on similar lines of Morigaon. 50 looms will be set up along with a few traditional shuttle looms. However, she plans to set up additional infrastructure which will have a vendor's meeting room and a display showroom to put up her sample of work. She also plans to have a small museum within the premises for tourists who has interest in traditional weaving and handloom. She is contemplating of approaching NEDFi for another loan in this regard. Additionally, she plans to include garments for male and children. She has been targeting the national markets (as she calls it) for this purpose. Also, she plans to produce wall hangings, curtains and room decors by giving them a handloom and traditional touch. She also plans to produce saree in her Dhemaji unit on the lines of Tantuja, a handloom business unit based out of West Bengal. Marketing is a tough challenge as marketplace for handloom are scarce and there is a need for more platforms where traditional handloom products can be sold. Primarily, she has been selling her products through social

media platforms, which is Facebook and WhatsApp. Along with this, her own website called www.artextdirect.com has played a vital role. She has often collaborated with fashion shows where she provides them with the traditional clothes in return for an advertisement, display and promotion at the events concerned. Recently, IndiaMart, another online shopping site, has come forward and showed interest in doing business with them. Apart from this, Amazon and Flipkart are their constant online marketing partners. Expo, handloom melas and any other opportunities are being utilized by her to promote her products. Even local news channels such as D-News promote her showroom.

As she sells her products through online giants like Amazon and Flipkart, she gets orders from throughout the country as well from countries such as Singapore, Abu Dhabi, China and the United States. There are tourists from all over the country who visit her boutique/showroom and provide positive feedback. This acts as a constant motivation for her. Although the pandemic has caused some losses she has managed to cope up with it. She says, “Hosake kobo gole, khoti hoise kintu bakir tulonat kom hoise”, which means “To be honest, there were losses but relatively less as compared to others”. Apart from a few orders, most of the demands were met online and delivered after the lockdown was eased.

Challenges for running the business:

She mentions a few points as operational challenges:

- i) Education of women weavers: Since most of them have received little formal education, they tend to misunderstand the demands and expectations of their employer. Their idea of measurements are traditional, which is ‘by hand’. At times, they weave longer or shorter as they are not aware about standard measurements in meters, feet or inches. This is one challenge that she has been facing since the establishment of their units.
- ii) Constraint of time: Weavers in the villages tend to work based on their mood. This leads to delay in delivery of final products in time and therefore leads to cancellation of orders.
- iii) Lack of motivation among weavers: Once they receive the payments, they are reluctant to return to work. Only when they exhaust their previous wage, they return to work. So, at times, to meet customer demand, she procures finished products from local vendors to satisfy the demand.
- iv) Procurement of raw materials: This is a concern as there is lack of quality of yarn supplied by the vendors. She plans to produce her own raw materials at her unit.
- v) Raw materials are generally procured from vendors in fancy bazar. At times, weavers themselves get them from their home where they rear mulberry leaves along with the insect.

Interventions/Schemes by the Govt:

The Indian government has introduced various schemes and made interventions to preserve the rich heritage of the Indian handloom industry and promote its culture. A brief analysis of some of the major programmes introduced over the years by the government is provided below. It may be noted that the various initiatives taken by the government are directed towards areas such as cluster development, availability of credit, promotion of exports, supporting environmental compliances, provisions of social welfare schemes for weavers, infrastructure development, availability of raw materials, brand building, marketing and R&D

The following table provides an update on the Government of India's development programs / schemes and their impact (period of 2017-18, upto December 2017)

Scheme	Objective	Progress/Outlay/Funds Released	Progress/Beneficiaries Impacted
Weaver Mudra Scheme	Concessional Credit	₹ 271.62 crores *	52059 weavers*
Block Level Cluster projects	Financial Assistance	₹ 22.87 crores**	43 block clusters sanctioned in the country**
Handloom Marketing Assistance	Marketing		126 domestic marketing events sanctioned ***
E-Commerce	Marketing	21 companies involved***	₹ 16.77 crores of sales achieved***
Indian Handloom Brand	Marketing	1007 registrations issued***	₹ 296.69 crores of sales achieved***
Handloom Mark	Marketing	9.85 crore labels sold and 19663 registrations issued***	
Yarn Supply Scheme	Raw Material Availability	₹ 162.07 crores**	
Export Promotion	Enhancing exports		Participation in 18 international events during 2016-17****
Geographical Indication of goods	Legal protection and prevention of unauthorised use		57 handloom products registered under GI*
Handloom Weavers Welfare Scheme	Welfare Scheme		5.32 lakh weavers enrolled under MGBBY 144294 weavers enrolled under HIC****
Comprehensive Handloom Cluster Dev Scheme	Cluster Development	Rs 28.5 Crores	

Source: TARI Research Team 2018

National Handloom Development Programme (NHDP)

The objective of the programme is holistic and integrated development of handloom industry and welfare of weavers. The programme supports weavers, both within and outside the cooperative fold including Self Help Groups, NGOs etc. towards credit design inputs, technology upgradation, marketing support and skill upgradation. The major components of the scheme are as follows:-

a) Concessional Credit for handloom sector through the Weaver Mudra Scheme

The scheme was launched in September 2015 with the aim to provide loans at concessional interest rate of 6% for a period of three years. Also, money margin assistance to a maximum of ₹ 10000 per weaver and credit guarantee for a period of three years is provided by the scheme. The scheme has benefitted over 52059 weavers and a loan of ₹ 271.62 crores was sanctioned under the name of Weaver Mudra Scheme.

b) Block level cluster projects:

A cluster in the block is eligible to avail financial assistance up to ₹ 2.00 crores for Common Facility Centre (CFC) including Common Service Centre (CSC), engagement of textile designer cum marketing initiative, construction of common and individual work shed, appointment of Cluster Development Executive (CDE), technological and skill upgradation. Also financial assistance up to ₹ 50.00 lakh is available for setting up of dye house at district level. 43 block clusters have been sanctioned in the following states during the year 2017-18

c) Marketing Assistance: The aim of the scheme is to create an environment conducive to marketing of handloom products. Eligible agencies include state handloom corporations, apex cooperative societies, primary handloom weaver's cooperative societies and national level handloom organizations whose annual turnover does not exceed ₹ 30 lakh. A sum of ₹ 40.96 crores was released during the financial year 2016-17. Some of the initiatives as a part of this assistance are:

Handloom Marketing Assistance: The objective is to provide direct marketing platforms to weavers and handloom organizations to sell their products to the consumers. During the year 2017-18, 126 domestic marketing events have been sanctioned upto December 2017.

d) E-commerce: In order to provide direct marketing platform to the weavers / artisans, 21 leading ecommerce companies have been engaged for online marketing of handloom products. The sale of ₹ 16.77 crores has been achieved through e-marketing upto December 2017.

e) Promotion of Indian Handloom Brand (IHB): The brand was launched in 2015 to create a niche market for premium handloom products. It is given only to premium and authentic handloom products. A total of 1007 registrations have been issued under 113 products upto December 2017 and the sale of the IHB products have been ₹296.69 crores. Also, measures such as brand awareness, brand building, campaign, open door policy for e-marketing, partnership with retail stores on Pan India basis and launch of special product lines by major retailers are being taken to promote the IHB.

f) Handloom Mark: The Textile Ministry was entrusted with the responsibility of issuing the Handloom Mark as a guarantee for genuine handwoven product. The initiative entails several benefits to the sector and support its development by promoting handloom products in domestic as well as international market, providing assurance to the consumers about genuineness of the product, improving international marketing linkages, strengthening supply chain, improving price realization and earnings of the handloom weavers. A total number of 9.85 crore of labels have been sold and 19663 number of registrations have been issued upto September 2017.

Yarn Supply Scheme:

The scheme is implemented by Government of India through National Handloom Development Corporation with an objective to make all types of yarn available at the Mill Gate Price to the weavers. As per the scheme freight is reimbursed and 2% depot operating charges are given to depot operating agencies. Further 10% price subsidy on hank yarn is also provided under which 10% subsidy is applicable on cotton, domestic silk and woollen yarn with quantity limitation. NHDC has opened 10 yarn depots cum warehouses so as to ensure timely supplies to the users on cash basis, besides taking care of individual weavers who need yarn in small quantity. The amount of fund released during the period 2017-18 amount to be ₹162.07 crores.

Handloom Weavers Welfare Scheme

This scheme is an amalgamation of two schemes which are described below:

Mahatma Gandhi Bunkar Bima Yojna (MGBBY): The scheme is implemented through LICof India with an objective to provide insurance cover to the handloom weavers both in case of natural, accidental death and also on the occasion of total or partial disabilities. The enrolment under the MGBBY was 5.32 lakh during 2016-17 and a sum of ₹10.99 crores was paid as scholarship covering 1.66 lakh beneficiaries.

Health Insurance Scheme (HIS): The scheme covers the weavers as well their families including the ancillary workers. Pre-existing diseases as well as new diseases are covered and a sizeable portion is allotted for outdoor patients (OPD).

Structure courses provided by the research and training institutes of CSB targeted to train 130 in 2019-20 and successfully trained 121 persons. In the year 2020-21 it targeted to train 150 people and were successful in training 109. For the year 2022-23 it has targeted to train 250 persons, to which 31 persons have been successfully trained till September 2022. Farmers Skill Training, Technology Orientation Programmes, Capsule & Adhoc Courses and Exposure Visit and training in seed sector aimed to provide training to 10025 persons in the year 2019-2020 and achieved to train 8100. For the year 2020-2021 the target was 6865 and it trained 6454. For 2021-2022, the target was 6570 and it achieved 6196. Whereas the target to train in the year 2022-2023 is 6538, out of which they have successfully trained 1860 upto September, 2022. Other training programmes provided by the central silk board has been able to train more people than the target. Under Skill Training and Enterprise Development Programmes, 717 in 2019-20, 780 in 2020-21, and 953 in 2021-22 were trained. Upto September 2022, 391 people have been trained. (see table 6 and 7)

For the year 2020-21, total number members enrolled were 261, for 2021-22, 360 were enrolled and upto the 2nd quarter of 2022 222 people have been enrolled. Total number of silk mark labels sold in the year 2020-21 were 24.86, in the year 2021-22 it was 30.42, for the 2022-2023 upto the 2nd quarter 20.67 silk marks have been sold. Awareness programmes including exhibitions, fairs, workshop, road shows for the year 2020-21 were 324, for the year 2021-22 it was 497 and upto September 2022, it is 307.

Handloom Export Promotion Scheme

The objective of the handloom export promotion scheme is to assist the handloom co-operative societies, corporations/apex and handloom exporters to participate in international events, buyer-seller meets and to ensure availability of the latest designs, trends, colour forecasts. The assistance is given for export projects, participation in international fairs & exhibitions and setting up of design studios. During 2016-17, various handloom agencies participated in 18 international exhibitions with the assistance under NHDP.

The Geographical Indication of Goods

The Geographical Indication (GI) of Goods provides legal protection and prevents unauthorized use of these by others. Financial assistance has been provided to various states/agencies for registration under GI. So far, 57 handloom products have been registered under GI act.

E-Dhaga App

In order to enhance the effectiveness of the yarn supply, the National Handloom Development Corporation (NHDC) launched Enterprise Resource Planning (ERP) system and e-Dhaga mobile app in the year 2016. The mobile app enables transparency by allowing the weavers to place their orders directly on the app and accordingly make online payments for the same. The status of the shipments is also available through the app and the app is available in ten languages. The app is helpful to the weavers as they can now access information anytime and anywhere. They can also view yarn stock in NHDC's depots, warehouses and CFCs, product catalogue and the supplier list. Thus, the app is important to address individual concerns of weavers such as availability of raw material, delays in supplies and ensuring stocks in depots.

Comprehensive Handloom Cluster Development Scheme (CHCDS)

The scheme was introduced to develop mega clusters located in clearly identifiable geographic locations and which specialize in specific product (s). The nature and level of assistance to each cluster is need based and includes the components that are necessary for meeting the objectives, such as, technology upgradation, product diversification, raw material bank, credit, market development, forward and backward linkages, social security, and physical infrastructure, among others.

The broad objectives of the scheme are as follows:-

- To empower handloom weavers and build their capacity to enhance competitiveness of their products in domestic as well as global market in a sustainable and reliant manner
- To facilitate collectivization of handloom weavers and service providers for procurement, production, marketing and other support activities to promote sustainable growth and diversification
- To give proper thrust to design development through creation of design studio and involvement of professional designers
- To involve professional market chains and marketers to identify the items of production to meet the changing demands of the market
- To provide requisite support/linkages in terms of adequate care and technical infrastructure, technology, product diversification, design development, raw material banks, marketing & promotion, credit, social security and other components that are vital for sustainability of weavers engaged in handloom sector
- To provide for development of handloom cluster in an inclusive and holistic manner in an environment of empowered and participative decision making
- To encourage convergence
- schematic assistance and support services from various schemes and programmes of various government and other agencies in the cluster to optimize resource utilization for betterment of the livelihood, quality of life of handloom weavers and increase income level of the weavers
- Public Private Partnership (PPP) model in the form of collaboration between the Government, beneficiary weavers & their group, financially creditworthy & commercially linked marketing enterprises and the financial Institutions.

Other schemes and initiatives

Other welfare measure in the interest of the weaving community include provision of education facilities to the children of handloom weavers wherein MoU was signed with IGNOU and National Institute of Open Schooling (NIOS) to provide customized educational service to the weaver for which ministry provides 75% of the fee in case of SC, ST, BPL and Women weaver families. Also, efforts have

been to increase the outreach to the weavers by setting up Community Service Centres (CSC) where there is timely delivery of essentially utilities, social welfare schemes, healthcare, financial, education services, exhibition and marketing support to the weavers.

Besides other marketing initiatives, a Handloom Haat has been set up at Janpath, New Delhi to provide permanent marketing infrastructure support to the handloom agencies of various states. Internet connectivity at the Common Facility Centres, linkages with tourism, awards and recognition for the craft, introduction of the National Handloom Day, organization of 'Hunar Haat' in various states, opening of crafts museum and trade facilitation are some of the other measures taken by the government to support the weaving community and other stakeholders who are a part of the industry.

Government of Assam launched 'Swarnirbhar Naari', which literally means "Self-reliant Woman" an initiative of the handloom and textiles department, which aims to empower the indigenous weavers of the state and to provide financial support to the weavers' families. Under the scheme, the government has decided to procure handloom items directly from the indigenous weavers without involving any middlemen through a specially developed 'Swarnirbhar Naari' web portal. Sualkuchi Institution of fashion Technology was established to provide in-house training to weavers and unemployed youth across the state.

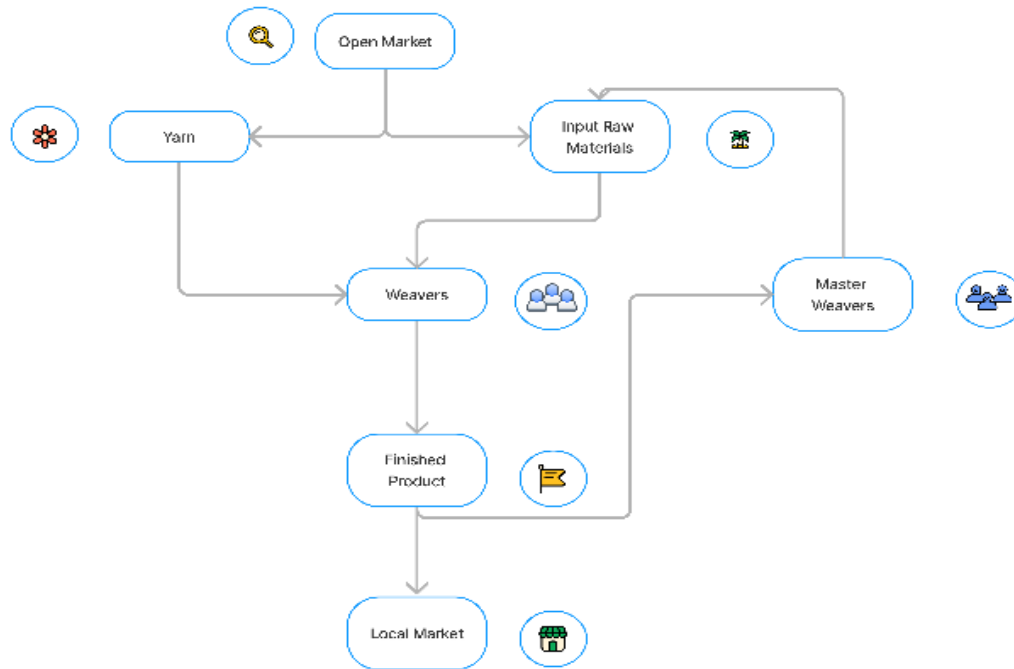
The central government RSBY Scheme for Handloom Weaver Family as welfare scheme. Government of West Bengal provides Mahatma Gandhi Bunkar Bima Yojana and Old age Pension to weavers as welfare schemes.

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Business Models in Handloom

Traditional Driven Model



Collective Driven Model



Entrepreneur Driven Model

