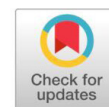




## Socio - Technological Transitions Vital for the Handloom Sector and their Contribution in Achieving Certain SDGs

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### Abstract

*The handloom sector is one of the most important sectors contributing to the Indian economy. Despite being one of the oldest occupational works in India, there are not many advances being done in this sector and weavers continue using the age-old looms, as there are no machinery or technologies developed related to reducing the burden of weaving and weavers. Weaving includes a lot of manual labour and physical strain, and weavers are forced to work in sub-standard, congested, and unhygienic work environments. All these lead to several health and occupational problems among the weavers, but are ignored due to various reasons like being paid less wages despite heavy manual work. Most weavers are old aged but forced to continue weaving due to several family reasons. This study tried to analyse the technological and social transitions that need to happen in the handloom sector for benefitting the weavers and providing them with decent work, economic growth, good health, and well-being; along with Industry, Innovation, and Infrastructure development as these are considered to be three important goals among the various Sustainable Development Goals (SDGs). Exploratory research was done to find out the occupational health and work-related issues of weavers from two handloom clusters of Telangana state. Results highlighted that weavers face work-related health issues like lung, back, neck, and shoulder problems, allergies, chest pain, and sight problems due to their heavy, strenuous, and repetitive work. Lack of technological advancements in their working mechanisms and infrastructural and skill-building support added fuel to these existing health conditions. These findings imply that socio-technological transformation must be done in the handloom weaving sector which can help the weaving community in contributing more to their family, improve their health and well-being, and the economic growth of our country. Finding independent weavers in the locations selected for the study was the primary challenge faced by the researcher while carrying out the current study. Independent weavers are the ones who are involved in the handloom weaving work right from the procurement of raw material stage to the selling stage. The number of independent workers have been reducing in the recent times as the younger generation in the weavers' families are not taking up weaving as their occupation and the older generation have already become old and are not being actively involved in the weaving activities due to the several occupational problems faced. In spite of the several challenges faced, the research interventions were successful in motivating some of the weavers to take up the concept of 'value addition' in their products, so that the consumers will be motivated to buy the handloom products as they have a new appeal, which can benefit the weavers directly or indirectly and reduce their occupational problems.*

**Keywords:** handloom, weaver, occupational health, technology, SDGs, socio-technological transitions, skill, work environment, occupational problems, well - being

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### Introduction

Sustainable Development Goals (SDGs) or Global Goals are one of the current trending topics globally. There are around seventeen SDGs which were framed back in 2015 by the United Nations General Assembly (UN-GA) and are intended to be achieved by 2030, for the change and actions to be taken by both the developed and developing countries all over the world

on a partnership basis. These are like a blueprint to achieve a better and more sustainable future for all living organisms on the earth [1]. They recognize that poverty alleviation and other deprivations must go on the same path with strategies that improve health and education, reduce inequalities, and promote economic growth besides tackling the major issue of climate change and preservation of our natural resources like oceans, forests, animal life, etc [2].

Linking these goals to the Handloom weaving sector of India, various perspectives can be thought of. The handloom sector and the weavers involved in it contribute a lot to the Indian Economy. There are over 4.3 million people involved in this sector directly or indirectly and their artistry demonstrates and contributes immensely to Indian culture and diversity. This sector is also the second largest employment provider for the rural population in India after agriculture. The industry has a strong infrastructure with about 2.4 million looms of varied designs and construction, indicating significant production capacity [3].

The handloom industry produces products known for their unique designs and finesse. One of the latest trends is to mix old designs with new techniques and create original products [3]. But all the work involved in producing different products is done using outdated machinery (looms, yarn winding charkhas, etc.) and technologies that are mostly run using manual effort. However, the handloom sector is facing grave challenges. There are no technological transitions seen in this sector, and the work involved is more manual intensive but less rewarding in terms of economy. It is important to help the handloom sector and weavers through some technological transitions in this 'Age of Automation' [4].

It is no doubt that artistic hand-work does not compete with the fast-paced and less quality machine work when details like quality, artistic nature of the fabrics or products, beauty, etc are considered. But the important elements of health and well-being of the weavers are ignored among the various dynamics. SDGs focus on goals like no poverty; zero hunger; good health and well - being; decent work and economic growth; industry innovation and infrastructure; sustainable communities; justice and sanitation.

When all these goals are linked with the Handloom sector, the ends are not positive. The relationship

between the SDGs mentioned above and the handloom sector can be explained in the following manner. Weavers work in low light, unhygienic and congested environments; clubbed with age-old infrastructure and machinery. Despite the manual hard work which they put up despite the lack of innovativeness present in their work, they are not able to find decent work and earn good wages. These sorts of economic conditions are leading to poor health and well-being, poverty, hunger and injustice. This is finally leading to economic losses and underdeveloped sustainable communities. The current study was undertaken by considering these insights on the role of selected SDGs in understanding the socio-technological transitions required for the handloom weaving sector.

## 2. Objectives Of The Study

The following are the objectives framed for the current study:

1. To explore the occupational problems and health issues faced by the handloom weavers.
2. To suggest some strategies which can contribute to the achievement of SDGs, about the handloom sector.

## 3. Methodology

The current study was conducted using an exploratory research method. Sixty independent handloom weavers from the state of Telangana (30 weavers from Kothawada cluster, Hanamkonda, and 30 weavers from Siripuram - Yellanki cluster, YadadriBhuvanagiri districts) were selected for the current study using the random sampling technique. The data was collected using an interview method with a semi-structured schedule developed for the study. The data collected was analysed using frequencies and percentages. A limited number of samples is considered a major limitation of the study.

## 4. Results And Discussion

The results of the present study are explained under the following heads:

- 4.1 Occupational problems faced by the respondents (Handloom weavers)
- 4.2 Health issues faced by the respondents
- 4.3 Strategies contributing to the achievement of SDGs and overall well - being of the weavers

### 4.1 Occupational Problems faced by the respondents (Handloom weavers)

In this section occupational problems faced by Handloom weavers are discussed. Around 41 occupational problems were quoted by the weavers from both clusters, which were classified into three categories i.e., (1) Input related, (2) Weaver related, and (3) Marketing related. This classification was adopted from the study by Kumudha and Rizwana [5].

**Table 1:** Distribution of respondents based on the occupational problems faced

Sl. No.	Problems faced	Cluster 1	Cluster 2	Total
<b>A. INPUT RELATED</b>				
1	Lack of finance	17 (57)	19 (63)	36 (60)
2	Lack of government schemes/ assistance	18 (60)	14 (47)	32 (53)
3	Rising costs of raw materials	16 (53)	24 (80)	40 (67)
4	Financial losses (due to lack of good quality raw materials)	1 (3)	1 (3)	2 (3)
5	Increase in dyeing and raw material charges	-	1 (3)	1 (2)
6	Raw material unavailability	-	1 (3)	1 (2)
7	Lack of orders	2 (7)	-	2 (3)
8	Problems in colour fastness	1 (3)	-	1 (2)
<b>B. WEAVER RELATED</b>				
9	Improper/ less wages	8 (27)	7 (23)	15 (25)
10	Lots of manual labour involved	-	7 (23)	7 (12)
11	Lack of skilled labour	6 (20)	-	6 (10)
12	Weavers shifting to other occupation	-	3 (10)	3 (5)
13	Increase of labour/ weaver charges	3 (10)	-	3 (5)
14	Age is more, hence cannot work more/ other health issues	1 (3)	1 (3)	2 (3)
15	Younger generation not taking up the occupation	1 (3)	1 (3)	2 (3)
16	No training/ innovation/ designer support to manufacture new products	-	1 (3)	1 (2)
17	Lack of education	-	1 (3)	1 (2)
18	Language barrier (when consumers from other areas, apart from local areas give orders)	-	1 (3)	1 (2)
19	No proper knowledge regarding product diversification	1 (3)	-	1 (2)
20	Cannot do other work/ Have no knowledge in other occupational work	-	-	

21	No growth in the financial status	-	-	
22	Limitation of loom setup space at home/ workplace	1 (3)	-	1 (2)
<b>C. MARKET-RELATED</b>				
23	Decrease of consumer demand for the handloom products	25 (83)	7 (23)	32 (53)
24	Lack of proper marketing and promotional strategies for the handloom products	19 (63)	9 (30)	28 (47)
25	Influence of middlemen/ handloom cooperative society officers	2 (7)	11 (37)	13 (22)
26	Risk factors involved in producing new products	4 (13)	4 (13)	8 (13)
27	Consumer preferences change very fast	5 (17)	1 (3)	6 (10)
28	Profit margin is less	5 (17)	1 (3)	6 (10)
29	Less profit is gained as the price is decided by the consumer	-	5 (17)	5 (8)
30	Payment is not done immediately by the shopkeepers	1 (3)	3 (10)	4 (7)
31	Competition from the power loom sector	1 (3)	3 (10)	4 (7)
32	No proper profit for the product as the consumers feel that the price is high	1 (3)	1 (3)	2 (3)
33	Competition from synthetic products	1 (3)	1 (3)	2 (3)
34	Competition from imported products	1 (3)	1 (3)	2 (3)
35	Downfall of export market	2 (7)	-	2 (3)
36	Competition from other clusters	2 (7)	-	2 (3)
37	No suitable recognition for handlooms from the Government	-	2 (7)	2 (3)
38	Lack of demand from consumers for new products	2 (7)	-	2 (3)
39	New products must be developed, but no options products available for diversification	2 (7)	-	2 (3)
40	Immediate sale of stock is not seen	-	1 (3)	1 (2)
41	Extra financial burden due to GST	-	1 (3)	1 (2)
<b>D. NO ISSUES REPORTED</b>				
		1 (3)	-	1 (2)

\* Figures in parenthesis indicate percentages

\*\* The percentage exceeds 100 as multiple responses were given by the respondents

From the results displayed in Table 1, it can be noticed that the majority of the respondents face various input-related problems. Lack of finance for the purchase of inputs/ raw materials like yarns, dyes, etc for doing the weaving (60%); lack of assistance from the government in terms of subsidy schemes, free supply, etc. (53%) and rising costs of raw materials (67%) are the three major problems faced by the respondents. Covid - 19 pandemic and Goods and Sales Tax (GST) are also contributing to the additional financial burden on the weavers.

From the respondents' (weavers) point of view, the three main problems faced by them include improper wages/ less wages (25%) despite the heavy manual work which they put in. Government or the master weavers, designers, and manufacturers fix up some wages which do not match up with the heavy manual labour done by the hired weavers. This causes lot of personal, psychological, and financial distress among the weavers. This is also forcing the younger generation weavers and experienced weavers to shift their occupation despite the rich artistry they have.

Heavy manual labour involved in the weaving work is the next highlighted problem by 12 per cent of the respondents. This labour when clubbed with a lack of proper infrastructure, outdated technologies, and machinery add up the additional physical and financial burden on the weavers. This also leads to the development of various health issues which will be discussed further.

This was followed by the problem of a lack of skilled labour (10%). Earlier, Government and other master weavers would take up good training programmes to improve the skill of weavers of both the younger and older generations. This phenomenon is not seen nowadays, which is finally leading to the lack of skilled labour, mainly among the younger generation. Earlier the family head used to teach the younger generations the skill of weaving. But now, either the older generations are having health issues due to the heavy weaving work involved or are shifting to other occupations or they are sending their children or family members to higher education or other jobs or the younger generations and family members themselves are not interested to learn the art of weaving. All these factors are causing serious and irreversible damage to the weaving sector and the weaving communities.

Regarding the problems related to marketing,

decreased consumer demand for handloom products was expressed (53%) by more than half of the respondents. Lack of proper marketing and promotional strategies, either at the weaver level or policy level is another major problem expressed by 47 per cent of the respondents.

Influence of middlemen or handloom cooperative society officers is the next bigger problem expressed by the respondents (22%). A thought must be put up by the concerned authorities on this issue. In earlier times, weavers worked independently and hence received orders directly, even export orders were received by Kothawada cluster weavers. But now due to the lack of working capital available with the independent weavers due to various underlying reasons like poverty, lack of orders and consumer demand, etc.; the independent weavers are trying to work under manufacturers or other master weavers or cooperative societies for fixed or less wages. This is hindering their work prospects and is dependent on orders or finance on other people. By taking these situations as an advantage, middlemen, manufacturers, other master weavers or cooperative society officers are taking advantage of the helpless wage-based weavers and are exploiting them in terms of their skill, wages, orders, personal treatment, marketing of the products, etc. All these are causing physical, emotional, psychological, and occupational stress among the weavers, disturbing their health and well-being of the weavers.

It is pathetic to note that very few respondents (2%) expressed that they do not face any occupational problems. This showed that almost all the respondents expressed having some or the other, either serious or short-term or long-term problems related to their occupation. This also showed the intensity of problems in the weaving sector despite its richness and speciality. Competition with power loom sector, marketing problems, infrastructural constraints, and rising yarn prices were some of the hardships of the handloom weavers [6].

All these factors are hindering the achievement of SDGs at a micro level and the development of the weavers community and India's economy at a macro level. Certain policies have to be thought off by the State Handloom Departments and Ministry of Textiles, NGOs, designers, manufacturers, etc which will be beneficial to the weavers, ultimately leading to the achievement of SDGs.



## 4.2 Health issues faced by the respondents

In this section health issues faced by Handloom weavers are discussed.

**Table 2** - Distribution of respondents based on the health issues faced

Sl. No.	Health issues reported	F (%)
1	No issues reported	17 (28.33)
2	Eye problems	17 (28.33)
3	Back pain	16 (26.66)
4	Shoulder pain	8 (13.33)
5	Lung problems	8 (13.33)
6	Leg pain	7 (11.66)
7	Asthma	7 (11.66)
8	Cough	7 (11.66)
9	Body weakness	6 (10.00)
10	Knee pain	5 (8.33)
11	Dust allergy	4 (6.66)
12	Cold	3 (5.00)
13	Hands pain	3 (5.00)
14	Body pain	3 (5.00)
15	Neck pain, nerve problems, Frequent fever due to work stress, skin allergies, head ache, Joint pain	2 (3.33) Each problem mentioned
16	Burns, Spondylitis, Respiratory problems, Skin rashes, Aging quickly, Loss of Appetite, Chemical effects, Elbow pain, Cataract, Calf pain, Liver problems, Chest pain, Bones pain, Heat stress, Ulcer, Blood pressure	1 (1.66) Each problem mentioned

\* Figures in parenthesis indicate percentages

\*\* The percentage exceeds 100 as multiple responses were given by the respondents

There are several temporary and permanent damages caused to the health of the respondents as expressed by them. Some of them include asthma, blood pressure, lung problems, and pain in different parts of the body like knees, hands, neck, head, etc. Eye-related problems are reported to be the highest (17%) among the selected weavers. The repetitive eye and arm movements required while placing the bobbin in the loom contribute to eye strain and shoulder pain [7]. As the weaving work involves a lot of manual work which is continuous and repetitive, unhealthy habits like continuous sitting, working in unhygienic environments, no proper work breaks in between, etc. All these factors lead to the development of several musculoskeletal disorders, lifestyle diseases, and temporary or permanent damage to the health of

the individuals. Due to heavy manual labour weavers are forced to adopt awkward postures in the weaving work causing back pain which is the next highlighted problem by 16 per cent of the respondents. The findings of the current study coincide with the research results carried out a group of researchers who studied the prevalence of low back pain among handloom weavers in West Bengal, India [8]. Analysis of the data revealed that the majority of the weavers were suffering from moderate disabilities in the lower back. Due to these issues, they will be unable to work continuously and hence, they will be habituated to taking frequent breaks from work, thereby reducing their wages earned. Hence, this study underlines the need for further research regarding the postural strain of weavers.

The recovery pattern followed by the weavers to relieve themselves from different level of discomfort are majorly by consuming 90 ml. alcohol per day to reduce the pains they get from the weaving work, which in turn reduce their savings and wages earned. It can be observed that among the 200 - 300 rupees earned as a wage per day, they would spend at least 100 rupees for the purchase of alcohol daily. Most of the weavers taken were either ignoring their health issues or not even taking their medicines or visiting a doctor.

These kind of situations were observed among the respondents. Such things are to be taken seriously and certain measures have to be taken at the individual level mainly in terms of education and training of weavers to protect their health and well - being.

## 4.3 Strategies contributing to the achievement of SDGs and overall well - being of the weavers

### 4.3.1 Inputs and Raw materials

Researcher Insights: Lack of finance to purchase certain inputs and raw materials like yarns, dyes etc is a major concern for the weavers. The Covid-19 pandemic and GST costs added financial burden. The raw materials are not available locally, hence adding up additional costs for transport and shipping. There are certain schemes that are taken up by the government with relation to input and raw material subsidies but these benefits actually do not reach the needy weavers. Weavers who can afford purchasing the inputs use several malpractices and get the raw materials on subsidised rates. Lack of quality raw materials is leading to producing poor quality

products and fabrics.

**Strategies Suggested:** Beneficiaries under government schemes should be identified properly. Independent weavers who have a lower economic background must be given preference in getting such subsidies. The suitable monitoring system should be rigid and in place for the proper implementation of welfare schemes for the Weavers. Yarn banks which are already existing in a few handloom clusters must become accessible to all the weavers to reduce the transportation and shipping costs involved in the procurement of the yarns and other materials. There are many instances where the yarn stock is completed in these banks as the manufacturers take huge quantities through black purchase which finally makes the eligible weavers do not receive the raw materials. Apart from this government should take care that the yarn and others inputs required are in stock regularly. GST exemption must be given for raw materials related to the handloom weaving sector. Easy access to raw materials at subsidized prices can be taken up as another beneficial strategy.

**SDG achieved:** Industry Innovation and Infrastructure

#### 4.3.2 Wages and Income

**Researcher Insights:** Despite the heavy manual efforts put in by the handloom weavers who either work independently or as wage workers; it is the middlemen like co-operative managers and other commercial sellers who get the maximum monetary benefits. Most of the weavers earn a minimum amount of Rs.200 to a maximum of Rs.600 per day i.e., around Rs. 18,000 based on the product woven. There are other people mostly women who are involved in the yarn winding activity who get wages around Rs.100 - Rs.200 per day also, whereas a commercial seller may easily earn more than Rs.30,000 per month.

**Strategies Suggested:** Government should take measures to increase wages and fix them on an equal basis throughout the state or country. This will help in reducing the malpractices and wage inequalities among the weavers. This will also control the malpractices done by the cooperative societies and other manufacturers.

**SDG achieved:** No Poverty, No Hunger, Social Justice

#### 4.3.3 Weavers self - perceptions and experiences

**Researcher Insights:** Weavers are proud of their work and the products they manufacture despite the several occupational problems faced by them. Due to various reasons like decreased consumer demand, overproduction and consumption of mill and machine-made products and decrease in export demand, rising cost of raw materials, lack of quality raw materials etc weavers are facing issues in the current days. For avoiding unnecessary financial risks most of the weavers are trying to become wage workers and work for other weavers or manufacturers who offer them fewer wages which do not match the heavy and quality workmanship offered. Due to the greediness of the middlemen, the number of independent weavers is decreasing. They are trying to settle down in this kind of low standard of living in their personal and professional lives.

**Strategies Suggested:** Weavers express to work for their betterment when proper opportunities are provided from various external sources. For example, in the state of Telangana, Government supplies hand-woven floor mats and bed sheets to the students in social welfare schools and colleges. But this order is given to the cooperative societies, where the weavers are hired for minimum wages. The actual weavers do not get any sort of benefits despite the hard work put in. Such orders can be given to the weavers directly eliminating the middlemen. For more authentication, some incentives can be given if the order fulfillment is good and timely. Government can make use of the geo-tagging information gathered earlier in the state for identifying the suitable weavers to give orders.

**SDG achieved:** Decent Work and Economic Growth

#### 4.3.4 Machinery and Tools

**Researcher Insights:** Most of the weavers are using age-old looms due to reasons like lack of technological advancements in the loom design, financial burden, etc. Apart from the loom, small tools which are used like a shuttle, yarn winding machine, etc are also run manually involving a lot of physical labour.

**Strategies Suggested:** Research can be taken up to develop ergonomically designed workstations for weavers to minimize the adverse effect of their current working postures and to make the work easy in terms of the time and effort put in by the weavers. Yarn winding machines, safer shuttles can be developed or designed. Nothing can match the intricate work and

details that can be developed using handlooms in a piece of fabric or a product.

**SDG achieved:** Industry Innovation and Infrastructure

#### 4.3.5 Marketing

**Researcher Insights:** Most independent weavers are unable to market their products directly in the market. Hence they depend on middlemen or other commercial sellers for marketing their products. These middlemen offer low prices for the products without considering the artistic contributions of the weavers.

**Strategies Suggested:** Exhibitions give a chance to the weavers to showcase their products to the large number of customers in a short time and at a single place. Hence several exhibitions are being put up by the Ministry of Textiles, Ministry of Minority Affairs, State Handloom departments, NGOs, etc to market the handloom products. But most of the sellers in these exhibitions do not sell handloom products. Due to this the weavers who make genuine handloom products are at a loss. It is important for the officials to identify the genuine weavers and allocate stalls in exhibitions on a rotation basis so that the maximum number of weavers will be benefitted. Government can set up some handloom hubs in some cities and towns and create a convenient marketplace for handloom weavers. In such cases, the consumers also will be motivated to buy handloom products as they find various collections at a single place. Development of a web portal to provide E-marketing can be done which can be handled by the government sector. Stores like TSCO, APCO, PONTEX, etc must be set up at various places to create a place for the weavers to sell their products and also provide access to the consumers for the purchase of handlooms. Government institutions can plan for training programmes on entrepreneurial skills exclusively catering to weavers only.

**SDG achieved:** Decent Work and Economic Growth

#### 4.3.6 Skill Development

**Researcher Insights:** Weavers express to be outdated in their product design and diversification. Most of the weavers are in their old age and hence are unable to upgrade their weaving skills. On the other hand, the younger generation is not willing to take

up weaving as their profession. Among the few younger population who are trying to continue their family occupation are not getting support in terms of training, or building up their skills in weaving either from their elders in the family or from the government. Modern-day consumers have fast-changing preferences in terms of product design and use. The skills possessed by the weavers is not matching up with the changing preferences of the consumers. Hence the demand from consumers for handloom products is decreasing.

**Strategies Suggested:** Training must be given by the government, NGOs or master weavers as this will be a motivating factor for the younger generation to take up the weaving activity. Ideas related to product innovation, diversification, and value addition must be given to the weavers.

**SDG achieved:** Industry Innovation and Infrastructure

#### 4.3.7 Health and Well-being

**Researcher Insights:** Due to their poor economic conditions, weavers are forced to work in congested environments which have low lighting, less ventilation, and improper sanitation and hygiene. The heavy manual work they do involves repetitive tasks, continuous hand and leg movements, etc. Weavers are hence forced to adopt bad postures and bad habits to reduce the physical burden. Due to continuous exposure to such conditions, weavers face a lot of lifestyle diseases, musculoskeletal problems, and other well-being issues. To come out of this work stress they go under the influence of tobacco and alcohol. It is pathetic to see that from the minimum wage of Rs.300 earned per day, most of the weavers both men and women purchase 90ml of alcohol which costs around Rs.100. All these conditions directly or indirectly contribute to various health issues, poverty, hunger and another related standard of living problems. They also do not take care of their health as they receive minimum wages and hence cannot afford to spend that minimum amount only on the health aspects.

**Strategies Suggested:** Weavers must be educated to create work-friendly environments in their houses or the workplaces provided by their owners. They should be educated to either visit a doctor, take medication or break from their work when any health issue is being faced by them. As this heavy work continues to

create certain health issues which can be permanent, proper education related to health aspects must be given. Otherwise, this can take a toll on the well-being of the family also.

**SDG achieved:** Good Health and Well - being, Sanitation

#### 4.3.7 Consumer

**Researcher Insights:** Modern consumers and the younger generation have many notions related to handlooms like products are expensive and outdated, require heavy maintenance etc. Due to this many consumers do not prefer to buy handlooms despite the rich artistic nature showcased in them by our Indian artisans. They mostly prefer mill made or machine-made products as they feel they are more accessible to buy, easily maintainable, have lots of designs and options, etc.

**Strategies Suggested:** Purchase access and awareness have to be created among the consumers regarding handlooms and associated benefits like their eco-friendliness, easy care, and maintenance, rich heritage, and artistry they possess, etc. Promotion of handloom aggressively through National TV and Radio can be taken up. Creating access to purchase of the handloom products might also motivate consumers. Sensitization programmes in places like educational institutes and offices about the benefits of handlooms and the hard work put in by the weavers can also be a motivating purchasing factor. Social media serves as a platform to influence people to shop mindfully and encourage handloom weavers.

**SDG achieved:** Sustainable Communities

All the above-mentioned strategies if implemented successfully will surely help in bringing in the socio-technological transitions required in the handloom sector, along with the achievement of certain SDGs and sustainable communities.

## Conclusion

This paper highlights the relationship between the SDGs and socio-technological transitions required for the handloom weaving sector. Suitable strategies were suggested related to how certain parameters (wages and income, marketing, consumer, inputs, skill development, etc.) involved in the handloom weaving work contribute to the achievement of selected SDGs.

Though this paper focuses mainly on the handloom sector, the observations, conditions, and strategies suggested can be generalised to other unorganized sectors. This sincere and thought-provoking paper surely will help in understanding the transitions required in the handloom sector and how these transitions contribute their part in achieving certain SDGs like no poverty, zero hunger, sanitation, health and well-being, innovativeness, and infrastructure development, etc both at the micro and macro level.

## Future Scope Of The Study

As the current study was focussed only in three selected handloom clusters in Telangana state, similar studies can be conducted in other handloom clusters of India which will give a more clear picture of the socio-technological transitions required for the handloom weaving sector. Further studies can also be conducted on weavers working on a daily wage basis and the younger generation in the weaver's families as their views on the occupational problems or requirements, and socio-technological transitions required may be different from the independent weavers.

## Conflict Of Interest

All the authors declare that they have no conflicts of interest.

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## Author's Statement

This paper is original and has not been published or submitted for publication elsewhere.

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