

Rising Sun of Eco friendly fibres- Generating employment through Lotus Fibre Yarn production as an innovation in the Handloom sector of Chhattisgarh

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Abstract

According to the Industry bodies Prime Minister Narendra Modi's vision on turning India into a developed nation by 2047 is an inspirational goal. The vision encompasses the key role played by the Indian Inc in this context by reducing the import dependency through self sufficiency. The Handloom industry has a significant contribution in the socio economic upliftment of India as 90% of the world handloom is produced in the country with an employment dependency of 4.2 million people contributing towards 15 percent of the total cloth production in India. With the increasing demand of eco friendly fabric all over the world due to environmental awareness organic fibers like jute, linen, ramie, banana, kenaf, nettle have come into play. National Institute of Fashion Technology has developed the 'Farm to Fashion' model which has been promoted in all NIFTs in India for a wider approach. In the field of organic plant fibers the emergence of Lotus fiber has been noticed in India since 2018 when an entrepreneur in Manipur devised the method of extracting Lotus fiber and producing yarns out of it to manufacture eco friendly fabric. Lotus fabric is popular in different countries of the world that include China, Japan, Myanmar and Vietnam that have its huge market among which the Samatoa of Cambodia are eminent to receive the seal of excellence from UNESCO for lotus as the moist sustainable fabric. With no polluting resources the fabric is 100% sustainable and around 40,000 stems produce 3000mts of yarn leading to the production of one meter of fabric. Around 30 kgs of stems (approx 1 hectare) are needed to produce 250 mts of thread that can be easily blended with silk to produce scarves and sarongs.

The production of Lotus fiber as an innovation in the handloom industry of Chhattisgarh has great prospects. The state of Chhattisgarh is situated in the heart of India with 3 lakh 37 thousand 966 hectares of area as wetland constituting 2.5% of the geographical area of the state. As per the recent survey (20 November 2022) the state abounds in 91, 928 ponds (1094 lakh hectare) out of which 92% of water is utilized for fisheries and rest is left fallow. The paper attempts to discuss a pilot project launched in Chhattisgarh under the aegis of Skill Development Program by NABARD and CSHDC regarding the production and promotion of the lotus yarn and its future prospects in the state.

INTRODUCTION - Among various plant and natural fibers that are prevalent and prominent in the Handloom and textile industry in the state of Chhattisgarh, Lotus fiber and its yarn production is emerging as a new challenge in the yarn manufacturing and textile making sector. Lotus fiber is much popular in various countries of the world like China, Myanmar, Vietnam

and Japan where it has its established market. The production of the fabric has started at a small scale in the North East including the state of Manipur and Assam where it is catching the market an also the international market for yarn export. Loro Piana one of the well known fashion brands of Italy exclusively manufactures jackets, scarves and trousers of premium quality with pure lotus fiber yarn.

HISTORY - The concept is however new in the Indian context and going back into the history Lotus has a divine significance in Hinduism and Buddhism and is regarded as the celestial flower. Known as Lotus silk in textile industry sector it first originated in Inle lake in Myanmar's Shan state. The weaving of the lotus yarn was invented by an ethnic woman named Sa Oo in Kyaingkan in early 1900s when she had woven a robe for a Buddhist monk. After her death the practice was extinct but later her relatives rejuvenated the weaving process. In 2017 Phan Thi Thuan , a weaver of Hanoi introduced the weaving of lotus yarn in Vietnam. Now it has become a wide practice as a small scale industry in areas abounding in lotus and climatic conditions favorable for its growth. In Vietnam it is widely produced by the small scale cottage industries. In India the lotus yarn production has started in Bishnupur district, near Loktak lake of Manipur.

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CHHATTISGARH STATE- In Chhattisgarh state the initiative for yarn production has been taken by districts abounding in lakes, wetlands and lotus along with some areas abounding in lotus farming. At the initial stage the project has been proposed under the Skill Development Program (under process) by NABARD and CSHDC (Chhattisgarh State Handloom Development Corporation) Khadi Board regarding yarn manufacturing, processing and fabric weaving in areas where ponds flourish in lotus throughout the year. There are plans to establish training centers in the localities near pond for giving training to the SHG groups functioning under the Khadi board and weaving societies of CSHDC. In Chhattisgarh state there are districts that abound in wetlands and ponds, some of them include, Hatkeshwar near Dhamtari, Aarang, Baloda Bazaar, WRS Colony Saraswati Nagar Raipur and Ratanpur district.

The state abounds in the production of various plant fibers like Kosa and Tusser silk that rule the fabric market of the state and have become emblems representing Chhattisgarh. Apart from these there is Sisal fiber that is derived from Sisal plant leaves that is grown in abundance in Chhattisgarh's Bastar region. Heavy cotton is also woven with a variation in finer counts combining Tusser and Cotton. Lotus silk is getting introduced as an innovation in the Handloom industry of Chhattisgarh and when woven with the finer quality cotton and linen it provides excellent result. The climatic conditions of the state provide an atmosphere of fuller sunlight which is essential for lotus growth and almost in all villages and urban areas Chhattisgarh is known for its pond culture. Lotuses can be seen effortlessly in full bloom in

almost any village crossed by The fabric is very delicate therefore total handwork is required right from the extraction process to the spinning of the yarn before it gets ready for the weft. In this way it is going to employ manual labor in subsequent amount therefore the problem of unemployment will be resolved with a large scale Skill Development Programs to be launched at the block and district levels. The yarn so manufactured by the trained workers will be used by the CSHDC for weaving the fabric and manufacturing various garments like scarves, jackets, sarees and many other fabrics in demand.

AS A SUSTAINABLE FIBER - As differentiated from Kosa and Tusser that are produced from the silkworms the Lotus fiber can be easily placed into the category of Ahimsa fiber as it does not employ any process of killing the worms or boiling the cocoons. This gives the biggest advantage to the fabric as the most Sustainable fabric of the future. Lotus is admired for its quality to rise above the mud which refers to the transcendence of life. The virtue of the fabric is its soft velvety and soothing feel that gives it the title of Lotus silk. The fabric has more length and is lighter in weight therefore the market value is assumed in weight (gms) or meters (lengthwise) for selling in the market. The raw materials full utilization is on the same day and cannot be stored for the next day as it gets deteriorated, therefore based upon an approximate value of the number of stems utilized by one labour and the amount of yarn produced. The preparation before the yarn making process involves washing and disinfecting the raw material and making ready for fiber extraction which is eventually rolled into yarn and sent for spinning.

HOLY AND MEDICINAL SIGNIFICANCE - Unlike Kosa and Tusser that are giving soft and slippery feel with shine, lotus silk is not shiny but can be blended with banana fletcher, the same material that is blended with kosa to give a brilliant shine. The yarn has a matt finish but is lighter in weight and airy. It has a soul of divinity associated with it therefore it is much ideal to make meditation robes, scarves and head covers for religious purposes. The Shrimadbhagwad Purana expresses the appearance of lotus from Lord Vishnu's navel therefore it is associated with the name "Padmanabha" from where the creator Brahma created the world, therefore the wraps made of lotus yarn will be promoted to acquire a special place in the rituals associated with Lord Vishnu. One feels calm, peaceful and meditative to wear lotus fabric and at the same time it cures ailments like depression, headache, heart diseases and lung problems.

PRODUCTION ESTIMATE- At a time one weaver can employ 25- 30 labors for yarn extraction who can produce approximately 7500-8000 mts of thread in 15 days training program. Around 40,000 mtrs of thread is needed to make 1 meter of fabric. The promotion of the fiber and its production has started in Chhattisgarh under the skill training programs for large scale production of the yarn to spin and weave fabric of varying segments including the pure lotus and mixed variants of lotus after which the costing will be decided. Presently in the market the estimated cost of the pure lotus fiber is 210-250 rs/gram.

Thus the production and promotion of lotus fiber state of Chhattisgarh has a bright future which in coming years will provide a great output in terms of jobs, employment and sustainability which goes in coherence with the VISION 2047 India to be seen as "Atmanirbhar Bharat".

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