

A Critical Analysis on Major Problems Faced by Reelers and Weavers of Silk Industry at Field Level in Murshidabad District of West Bengal

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ABSTRACT

Once silk goods of Murshidabad were exported to the different countries of the world. In sixteenth century Murshidabad exported its silk product to the coasts of East Africa, Arabia, Turkey, Syria and other countries (Das, R, 2015). Then came Dutch, East India Company and captured the silk business in this district. The company used to purchase silk yarns from the reelers and exported them to the Western Countries for producing silk products and gradually the company acquired full control over the silk production in the district. Murshidabad has a rich cultural heritage and the art of hand weaving formed its integral part. But now a day's both the sector i.e. reeling and weaving sectors are declining day by day. The present study highlights 9 major problems in reeling sector and 7 major problems in weaving sector. The study reveals that above 93 % reelers are complained about the lack of raw materials. The study also indicates that in only 20-33% successor of present are interested in this reeling sector and in weaving sector it is only 28%. The study also reveals that 90% -100% reelers and weavers are not satisfied for their wages. These are some the major problems which are responsible for declining the sectors in our district. The study also highlighted some future strategy to overcome the situation so that the "Murshidabad Silk" can regain its past glory.

Keywords: Sericulture, reeler, weaver, export, silk, silk goods, wages, future generation, Murshidabad silk

In a country where poverty holds nearly one third of the populations in its grip, these people still find it difficult to earn enough to satisfy the basic needs of existence, i.e. food and shelter. In such circumstances, findings employment and a suitable occupation to earn a living and sustain themselves is difficult when they do not possess sufficient education, and marketable skills. Silk reeling and weaving is an onerous occupation, which mostly poor people, with limited skills undertake – though a small number of better educated persons too have taken up reeling and weaving work. Once they are into this occupation, they often remain in it till they can

work no more. What is remarkable is that more than one generation of workers from the same family takes up this work (Inbanathan, 1993).

India is the second largest silk producing country of the world and has the unique distinction of being the only country that cultures four commercial varieties of silk i.e. Mulberry, Tasar, Eri and Muga. Sericulture is an agro based industry which provides employment and income to about 8.25 million people in India (CSB Annual Report-As on April-2017). It is also a labour intensive cottage industry generating high employment and income per unit area of land. According to CSB report it is estimated

that Sericulture can generate employment @ 11 man days per kg of raw silk production (in on-farm and off-farm activities) throughout the year. This potential is par-excellence and no other industry generates this kind of employment, specially in rural areas, hence, sericulture is used as a tool for rural reconstruction. According to West Bengal State Sericulture Diary, April-2016, in our district it provides an additional employment of 2453 nos. Murshidabad is the 2nd largest silk producing districts of West Bengal (Giridhar and Ramesha 1999 & 2003, Sarkar, K. 2009). It has a very old tradition in this District. Murshidabad silk came to prominence during Muslim regime in the 13th century. Organized development of sericulture & proper exploitation of silk in this District is initiated by East India Company. Once silk goods of Murshidabad were exported to the different countries of the world. In sixteenth century Murshidabad exported its silk product to the coasts of East Africa, Arabia, Turkey, Syria and other countries. Then came East India Company and captured the silk business in this district (Das, R, 2015).

The company used to purchase silk yarns from the reelers and exported them to the Western Countries for producing silk products and gradually the company acquired full control over the silk production in the district. Murshidabad has a rich cultural heritage and the art of hand weaving formed its integral part. Silk is the most elegant textile in the world with unparalleled grandeur, natural sheen, and inherent affinity for dyes, high absorbance, light weight, soft touch and high durability and known as the "Queen of Textiles". Sericulture, the art and science of silk production is a livelihood opportunity for millions owing to its high employment generation potential, low capital intensive nature, while being a highly remunerative agro industry. The very nature of this industry with its rural based on-farm and off-farm activities and enormous employment generation potential has attracted the attention of the planners and policy makers to recognize the industry among one of the most appropriate avenues for socio-economic development of a largely agrarian economy like India. Sericulture has been fully recognized as an important rural industry in India and elsewhere and is practiced as a house hold industry.

Matured silkworm extrudes a semi liquid mixture of protein, coated with a gummy substance called sericin from its spinneret. The liquid is thus ejected at a rate of about a foot per minute and transformed into fiber when exposed to air. This fibre is known as silk which is considered as queen of textile fibre (Chattopadhyay and Sarkar, 2008). Textile fibre mainly constitutes of natural fibre and manmade fibre. Among the natural fibre contribution of cotton is maximum. It constitutes 43.6% of total production of textile fibre followed by wool (3.6%) and silk (0.2%). Natural fibre accounts 47.4% of total Production. On the other hand manmade fiber constitutes of 52.6% of total textile fibre. Among the manmade fibres contribution of synthetic fibre is highest. It constitutes 45.8% of total production. Cellulose fibre contributes 6.8% of total manmade fibre production. (Giridhar and Ramesha 1999 and 2003, Sarkar, K. 2009). Silk has been a symbol of luxury down the ages. It has references in history, it was one of the major commodities traded between continents. Silk is also known as queen of textile fibre. Though its contribution is very negligible (0.2%) in the map of textile fibre but demand of silk and silk goods are increasing day by day due to its elegance and gorgeoussness.

Various products are produced from silk fibre like sarees, stoles, dress materials, readymade garments, carpets etc. Due to its gorgeoussness it is far costly than other natural fibre. Like other natural fibre silk is also hygroscopic in nature and dimensional stability is also comparatively less. Molecular orientation in silk is differed from manmade fibre. Inter molecular attraction is comparatively less and inter molecular distance is comparatively more, so silk is also known as unequal textile fibre. Silk is also used as blended material with synthetic and wool (Rangswami *et al.*, 1976).

West Bengal is the major traditional state of sericulture in India. There is a long tradition of Sericulture in West Bengal and as well as in Murshidabad District. Sericulture has a very old tradition in Murshidabad District. Chronological sequence of various stages of growth of sericulture is difficult to ascertain due to lack of systematic record in this District. Murshidabad silk came to prominence during Muslim regime in the 13th century. Organized development of sericulture &

proper exploitation of silk in this District is initiated by East India Company. East India Company started exporting Bengal Silk to Europe from Murshidabad. Murshidabad is the pioneer of some unique handy craft like Murshidabad Silk, Baluchari etc (Chattopadhyay and Sarkar, 2006, 2008).

All the major practices of Sericulture Industry including Mulberry Cultivation, Silkworm rearing, silk reeling and silk weaving are practiced in this district. Reeling and Weaving are both very important phenomenon among these. Unwinding of silk filament from the cocoon is known as reeling. On the other hand, Weaving is a mechanism through which the silk yarn can be converted into fabrics by interlacing with each other. For weaving warp preparation and weft preparation are important. Raw silk wounded longitudinally on beams called warp. For preparation of any dress material, quality of warp is required less and it is generally made from bivoltine cocoons. The yarn passes through warp yarn vertically are called weft. The weft yarn is made through multivoltine cocoons (Rangswami *et al.*, 1976).

Most of the reelers of the district are engaged in reeling activity under the mahajans and middlemen at a fixed wage rate basis. The wage rates allowed by the mahajans and the middlemen for production of 1 kg of silk yarn are ₹ 150 and ₹ 200, respectively in the year 2016-17. The mahajans and middlemen sell the reeled yarns in the market at a higher rate. Thus, most of the reelers have no any direct contact with the weavers of the district. The weavers engaged in silk handloom sector work in three different ways: (a) under co-operative societies (b) under mahajan / money lender or (c) are individual weavers. This cluster has enormous potential because of good demand in national and international markets. However, it is currently in poor shape as the weavers lack direct access to potential markets and some of the societies are suffering from payment of dues for about 3 years from the central marketing organizations under Directorate of Handlooms, viz. West Bengal State Handloom Weavers' Co-operative Society Ltd. (Tantuja), West Bengal Handloom & Powerloom Development Corporation Ltd. (Tantushree), Paschim

Banga Resham Silpi Samabay Mahasangha Ltd. (Resham Silpi), West Bengal Handicrafts Development Corporation Ltd. (Manjusha), The West Bengal State Handicrafts Co-operative Society Ltd. (Bangashree). Besides these agencies, silk is also sold in fairs and via mahajans and middlemen. According to West Bengal Sate Sericulture Annual Diary, the total production of raw silk yarn in 2016 (Up to March 2016) was 458.98 MT. This yarn is sold at markets in Nabagram, Panchgram and Sagardighi. Murshidabad is the leading district in the state in silk weaving. According to Ratan Das (2015) the district is famous for Kora, Garad, Karial, Jacquard and Jamdani silk. Total production in the co-operative sector of the district in the year 2011-12 was worth of ₹ 390 lakh. Total sale in the co-operative sector of the district in the year 2011-12 was ₹ 410 lakh approximately.

But at present, Murshidabad has lost its past glory in terms of Sericulture Industry. Degeneration of silkworm breeds, competition from other cash crops like Jute and Rice, spread of pebrine disease, falling prices of raw silk, withdrawal of European Cocoon buying firms, low wages in sericulture and organizational set back are the major reasons behind that set back (Sarkar, A, 2006). For that reason Murshidabad Silk Industry is facing various types of Problems. Reeling and weaving Industry are also not an exception. So here a sincere effort is done to analyse major problems faced by reelers and weavers at field level in Murshidabad District.

Relevance of the present study

Murshidabad is the major traditional district of silk production in West Bengal. It occupies second position in terms of silk production in West Bengal. Murshidabad is the pioneer of some unique handy craft like Murshidabad Silk, Baluchari, Maslin etc. East India Company started exporting Bengal Silk to Europe from Murshidabad. But the condition of silk industry in this district is now facing great setbacks. Tipu Sultan was the pioneer of establishment sericulture in Mysore from Murshidabad.

Today Karnataka is in the first position in Sericulture in India. 60% of Indian silk production is coming from the southern states. Both reeling and Weaving are important phenomenon of Silk Industry.

Unwinding of silk filament from cocoon is known as reeling (Rangswami *et al.*, 1976). At present around 22501.333 MT of Mulberry silk is produced in West Bengal (West Bengal State Sericulture Diary, April-2016). It is almost half than the actual requirement. Because demand of silk and silk goods are increasing day by day not only in our state as well as in our country and even in World market.

Weaving is a method of textile production in which two distinct sets of yarns or threads are interlaced at right angles to form a fabric or cloth. The longitudinal threads are called the warp and the lateral threads are the weft or filling (Collier, 1974). Murshidabad was also the nursery of weaving industry not only in Bengal but also in India. Almost 300 years ago 'Maslin' exported to Dhaka from Murshidabad through the river Ganges (Choudhury, Ramananda, 2009). Best weavers of this country lived in Murshidabad. Unique design, techniques of weaving of Murshidabad attracted British, French and Dutch traders in Murshidabad on that time. Lot of weaving centres were established on that time at Kalikapur, Farasdanga, Saidabad, Beldanga, Kumarpara, Nouda, Chalk-Islampur, Doulatabad, Berhampore, Baluchar (Jiaganj), Mirjapur, Jangipur etc (Choudhury Sunanda, 2008). Most of them are becoming closed today. So, here a sincere effort is done to analyze major problems faced by reelers and weavers at field level in Murshidabad district.

Objective

The main objectives of this study to know the major problems faced by reelers and weavers at field level in Murshidabad District.

Reeling Industry

1. Lack of availability of raw materials throughout the year.
2. Unavailability of proper infrastructural facilities including unpopularity of multiend reeling machine.
3. Lack of proper training.
4. Lack of marketing opportunities.
5. Unavailability credits from Government
6. Lack of Extension in the field.

7. Lack of Basic Education
8. Less Wages Rate
9. Lack of interest of future generation in this trade.

Weaving Industry

1. Nature of wages in the weaving industry.
2. Source of Credit for the weavers.
3. Place of marketing for weavers.
4. Participation of women in weaving industry.
5. Availability of raw material for weaving industry.
6. Facilities of training for the weavers.
7. Interest of future generation in this trade.

MATERIALS AND METHODS

Present study was undertaken to know the major problems faced by reelers and weavers of Murshidabad District. The study was conducted 12 villages of Khargram block like Sonigram, Kelai, Digha, Dhonigram, Nonadanga, Jhilli, Khashpur, Kamarpur, Patdanga, Poradanga, Siata, and Alinagar, and the study composed of 60 reelers who have been practicing reeling for a long time. The reelers who were engaged in reeling of more than 500 Dfls/crop was considered as big reelers and simultaneously the reelers who were engaged in reeling of less than 500 Dfls/crop was considered as small reelers in this survey. Reelers were selected and interviewed by adopting purposefully random sampling methods. Families of Nagar village of Khargram Block are mainly engaged in different activities of weaving. Four villages of Berhampore Block were also included in this study. These villages are Sebabrata, Narayanpur, Balarampur and Krishnamati. Data was collected from 25 families of these villages. Families of these villages are engaged in different activities of weaving. Purposefully random sampling method is followed for conducting the survey.

Data pertaining to the related topic was collected after three visits in February-2017 crop by personally interviewing with the aid of designed questionnaire and interpreted accordingly (Ray, G.L. & Mandal, S., 1997).

Table 1: Major Problems faced by Reelers at Khargram Block

Sl. No.	Subject	Problem of Small Rellers (Number: 30)		Problem of Big Rellers (Number: 30)	
		Number	Percentage	Number	Percentage
1	Unavailability of raw materials	28	93	28	93
2	Lack of infrastructural facilities	27	90	24	80
3	Lack of proper training	24	80	20	67
4	Lack of marketing system	28	93	27	90
5	Unavailability of credits from Government	28	93	26	87
6	Lack of Extension	26	87	22	73
7	Lack of Basic Education	22	73	17	57
8	Less wages rate in reeling industry	30	100	27	90
9	Lack of interest of future generation in this trade	10	33	6	20

Data collected during February, 2017.

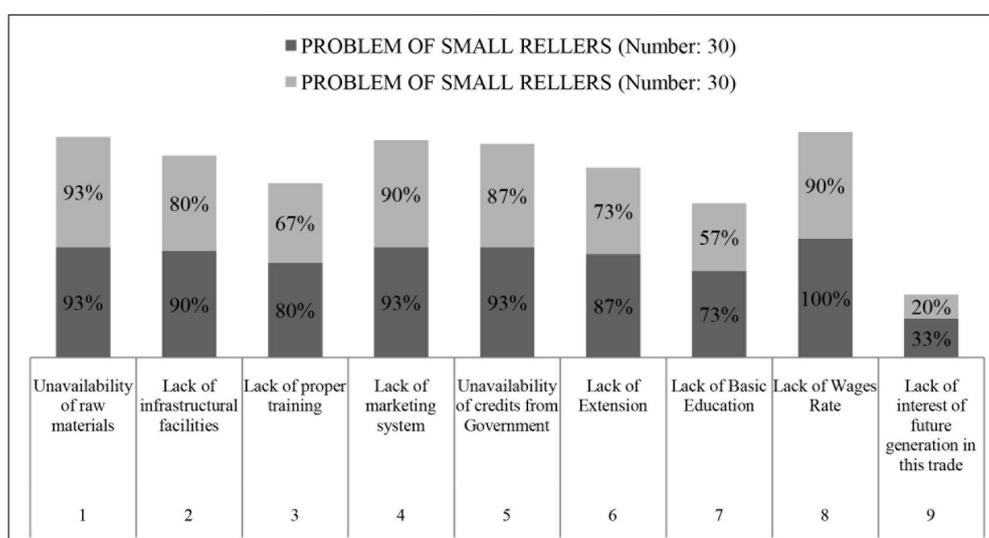


Fig. 1: Major Problems faced by Reelers at Khargram Block

Table 2: Major problems faced by weavers in selected Villages of Khargram and Sadar Berhampore Block

Sl. No.	Subject	Number	Percentage
1	Less wages in the weaving industry.	25	100%
2	Source of Credit for the weavers.	13 (Samity); 12 (Mahajans)	52% (Samiti); 48% (Mahajans)
3	Place of marketing for weavers.	13 (Samity); 12 ; Mahajans)	52% (Samiti); 48% (Mahajans)
4	Interest of future generation in this trade.	7	28%
5	Participation of women in weaving industry.	15	60%
6	Availability of raw material for weaving industry	24	96%
7	Facilities of training for the weavers.	15	60%

Source: Data Collected During February, 2017.

Major Problems Faced by Weavers

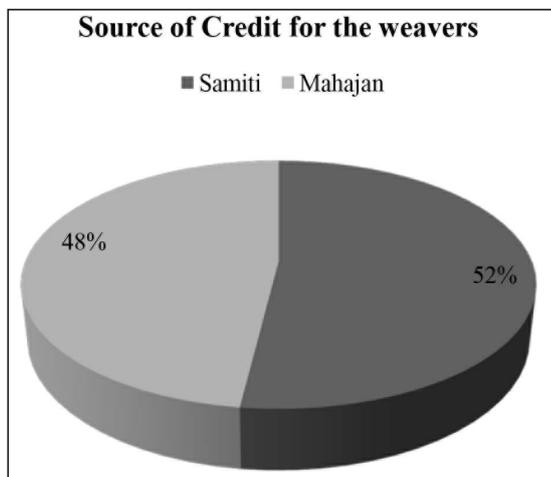


Fig. 2.

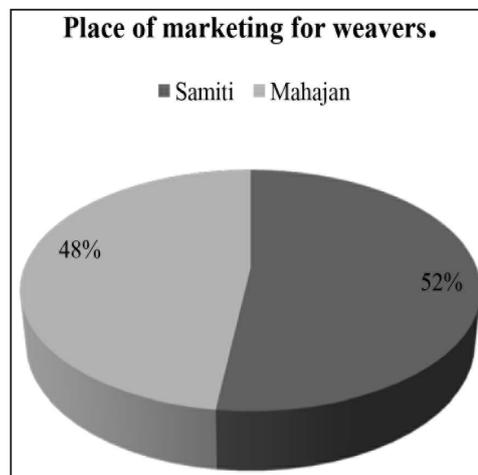


Fig. 3.

RESULTS AND DISCUSSION

The Present study was undertaken to know the major problems of reeling Industry and weaving industry in Murshidabad District. In Khargram block all the reelers are rearers. Rearers after producing the cocoons, generally do not sell it open market, they usually reel it to silk. In Khargram and Berhampore blocks, weavers are still now running their institution with facing so many problems. Details discussion is lying down.

In Reeling sectors rellers are facing following problems at field level.

❖ Unavailability of raw materials throughout the year

Mulberry Silk worm rearing season is divided mainly in two parts i.e. Favourable season and unfavourable season in West Bengal. November to April comes under favourable season and May to October comes under unfavourable season. During favourable season, generally dry summer is predominant and during unfavourable season wet summer is predominant. Mulberry crop span is 70 days. So five harvests as well as five rearings can be done in a year. November crop (Winter / Agrahani), February crop (Spring / Falguni) and April crop (Summer / Baishaki) come under favourable season (Dry Summer) where June-July

crop (Rainy / Shrabani) and August-September crop (Autumn / Aswina) come under unfavourable season (Wet Summer). It is difficult to rear cross breed and Bivoltine hybrid throughout the year due to prevailing of high temperature and high humidity in Murshidabad district. Due to this reason it is difficult to supply good quality cocoon throughout the year for reeling purpose. This phenomenon is also reflected in our study. 93% small and big rellers of Khargram Block are fall into line about the scarcity of raw materials (Table 1 & Fig. 1).

It is comparatively easier to rear crossbreed (M×Bi) during favourable season because crossbreeds with bivoltine components cannot withstand high temperature and high humidity (Das *et al.*, 1994, 2006). On the other hand during wet summer (unfavourable season) due to prevailing of high temperature, high humidity and heavy fluctuation of climatic condition it is better to rear multivoltine and their hybrids (Das *et al.*, 1994, 2006).

Because multivoltine and their hybrids are more resistant to high temperature and high humidity as compare to crossbreeds (M×Bi) (Krishnaswami, 1978, Benchamin and Jolly, 1986). So at present in West Bengal multivoltine hybrid (N×M12(W)) is generally reared during unfavourable season and crossbreed (N×NB4D2) is generally reared during favourable season at farmers level (Das *et al.*, 1994, 2006; Chattopadhyay *et al.*, 2004,

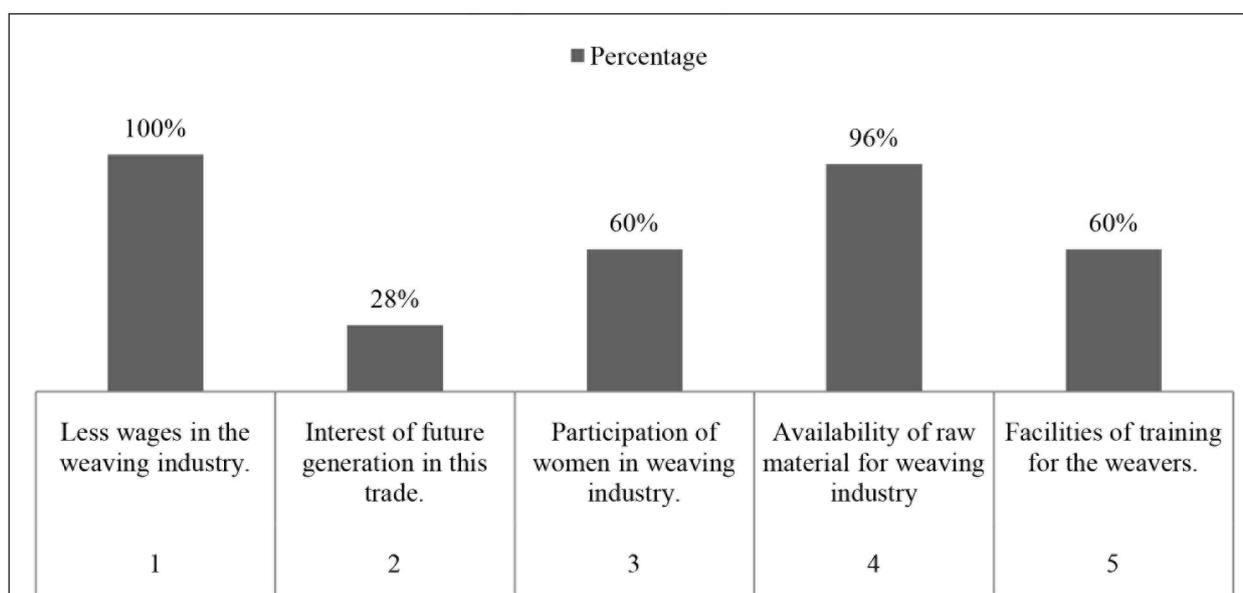


Fig. 4: Major problem faced by weavers

Chattopadhyay and Sarkar, 2006, Sarkar, 2006, Sarkar, 2008).

According to Sarkar and Majumdar (2017) reeling of multivoltine cocoons are not economic at all. Renditta of multivoltine cocoons are too low which are not cost effective. Besides that cocoons of rainy season cannot be reeled properly because due to high humidity, quality of sericin is highly affected. Sericin (Gum of filament) takes more time to become dry in high humid condition; it ultimately affects the releasing of filament from the cocoons during cooking. So it is better to procure whole annual requirement during November, February and April because these three crops are comparatively better where cross breed races can be reared. But there may be a chance of wastage of raw materials during transportation and preservation due to bulk procurement. It is also very difficult to run the whole year with the cocoons of three crops. In this junction lack of raw material is one of the prominent problems in the reeling industry.

❖ **Unavailability of proper infrastructural facilities including unpopularity of multiend reeling machine.**

It is true that about 85% reelers are using country charkha or cottage basin in our district (Sarkar *et al.*, 2010). The observation is supported by observation laid in West

Bengal State Sericulture Annual Diary on 01/04/2016. According to that report 45% Country Charkah, 35% Cottage Basin and only 20% Ghosh Basin reeling units are ruling in this sector. Semi automatic and automatic reeling machine is still dream to our lion's share reelers. In our study area once again the reelers are agreed about the unavailability of infrastructural facilities. 90% of small reelers and 80% big reelers of Khargram block are facing problems due to infrastructural facilities (Table 1 & Fig. 1). Reelers in Khargram Block are not having any storage facilities of Cocoons. In rainy season they are bound for reel green cocoons. But without proper provision of drying the cocoons one cannot reel throughout the year. It is important to dry the green cocoons immediately after proper mounting otherwise live pupa inside the cocoon will become moth and comes out from the cocoon by piercing the cocoon shell during the course of metamorphosis. Pierced cocoons are unfit for reeling.

So any negligence or procrastination in drying may result in huge loss. The reelers have no Automatic Drier so that they can dry their cocoons in rainy season also. It is also a big infrastructural problem in this sector. Sun drying may also helpful if intensity of sun light is low. But when the intensity of sunlight is too high and the

UV rays may affect the silk thread and deteriorate the silk quality.

It is no doubt that reeling of cross breed (M × Bi) cocoons through multiend reeling machine ensure production of quality silk than the reeling of multivoltine cocoons (Sarkar *et al.*, 2008). But present investigation reveals that in Murshidabad District at farmers' level in Khargram block, proper infrastructure facilities are not still developed for the reeling of Multi×Bi or Crossbreed cocoons.

Some big reelers are using motorize country charkah which can reduce the labour consumption at the time of reeling, but the quality of silk is remain unchanged. It is true that Charka or Cottage Basin dominated multivoltine based reeling industry cannot bring glory to the reeling industry of Murshidabad District.

❖ Lack of proper training

According to West Bengal state, sericulture diary only 5 number of Reeling Training center is present in our state. So, the picture is clear that it is not possible for these least number of training centers to giving training for our thousands of reelers. The field data of our study also support this statement that 80% small reelers of Khargram blocks were not having any proper training (Table 1 & Fig. 1). Though in case of big reeler, it was around 67% (Table 1 & Fig. 1), due to their personal influence and economic competency, big reelers have got more opportunities of training than small reelers. Proper training is indispensable to cope with the rapid change of technology. Skilled labour is essential in case of reeling industry. During the reeling of silk yarn it is important to maintain requisite denier (thickness of yarn) of silk yarn. Unevenness in thickness may reduce the cost of silk drastically. Lack of training is one of the major reasons behind the unpopularity of multiend reeling machine in this district. During the period of NSP (National Sericulture Project), some multiend reeling machines are distributed to the reelers at free of cost. But due to lack of proper training, utilizations of these machines are no done at all.

❖ Lack of marketing opportunities

Proper marketing can boost up any industry and give a resistance power to stand in the era of globalization.

If the marketing system is poor you may knocked from the system and it is true for sericulture or silk industry also. According to Ratan Das (2015) the success of sericulture industry depends on a proper and highly efficient marketing which assures good prices to the farmers, reelers, weavers and the co-operatives. Efficient marketing helps in arresting wide fluctuations in prices of cocoon, silk yarn and silk fabrics due to (i) variations in quality, (ii) absence of quality control, (iii) intervention of middlemen and (iv) poor marketing facilities. An efficient marketing channel entrusts a sense of security among the rearers, reelers and weavers who have no hesitation in accepting sericultural activity as one of their main occupations and financing problems of sericulture can be solved through an efficient marketing system.

The chief marketing channels of the Silk Co-operative Societies are Tantuja, Tantushree, Manjusha, Bangashree etc. which are the central marketing agencies set up to provide marketing support to the co-operative societies. The societies have also some marketing opportunities through private traders.

The marketing channels purchase silk yarns from the Reelers Co-operative Societies even from the neighbour district, Malda and from the private reelers. These channels supply the silk yarns to the Silk Weavers Co-operative Societies for producing silk clothes. Since, there is no proper marketing facility in the district for reeling silk yarn, the private reelers have to sell the reeled yarn at a low price to the silk merchants / middlemen to get quick return of working capital for further activities.

Sometimes Tantuja, Tantushree, Manjusha and Bangashree purchase the reeled silk from the private reelers and the Silk Reelers Co-operative Society in the district at a fair price. Our study also reveals that 93% small reelers and 90% big reelers are facing this lack of marketing opportunities (Table 1 & Fig. 1). Islampur, Panchgram, Nabagram, Mirzapur are the major markets of silk present in Murshidabad District but all are unregulated and unorganized. So, reelers are forced to sell their silk to middleman, mahajans etc. Problems of marketing are more in case of small reeler. Besides that silk can be sold in adjoining districts like Bhadrapur

and Akalipur of Birbhum District, Kaliachawk of Malda Districts etc. Local Resham Khadi organizations are also the major consumers of silk. There is even provision of transportation of quality silk to Bhagalpur of Bihar, Bangalore of Karnataka etc. Silk wastes can be sold in Narayanpur of Malda District where the biggest spun silk mill of our country is working under "Pataka Group of Industries" (Sarkar and Majumdar, 2017).

It was observed in the present study that suppose a rearer reared 100 DFLs crossbreed. From 100 DFLs crossbreed he got around 40 kg cocoons and from that amount of cocoons he reeled 4-5 kg silk. Due to lack of regulated marketing system he sold that silks to middlemen. Middleman procured silk from every such reeler at a comparatively lower rate. After procuring silk from every reelers, middleman brought that silk to Berhampore town and sold that silk at a comparatively higher rate to local Mahajans. An individual reeler cannot do it because selling of only 4-5 kg silks at Berhampore town cannot be profitable. In this junction middle man works as a complementary of cooperative system at Khargram Block. So, a proper cooperative silk marketing system can help poor reelers to get rid from that condition. But, Sarkar *et al.* (2015) stated that interventions of Mahajans are also very prominent at that Zone. They easily exploited both poor reelers and weavers. Sarkar *et al.* (2015) also stated that the main reason behind that is sometimes Samitis procure clothes straight from Mahajans by completely ignoring their reelers and weavers.

❖ Unavailability of credits from Government

If we see the marketing opportunities there one things is clear that reelers are take loans from their 'mahajans' due to unavailability of Government helps in time and that's why they are bound to shell their raw silk to these particular mahajans. In Khargram Block, 93% small reelers and 87 % big reelers complained about this matter (Table 1 & Fig. 1). Govt and Banking facilities become meager for the small reelers. The main reason behind that is past experience of banking sectors were very bad in terms of returning of loans. Miss utilization of fund is also main reason behind those problems. Sarkar *et al.* (2015) stated that big reelers at Raninagar-I Block were benefited upto some extent because they sometimes

got Govt. assistance through various cooperatives/ Samitis. A scientific approach is essential to provide loan /subsidies to small reelers. Besides that a proper monitoring committee is required to observe proper utilization of fund.

❖ Lack of Extension in the field

Dissemination of technology from lab to land is essential for the upliftment of an Industry. Sericulture Industry is also not an exception. But lack of extension officials in both the offices of State and Central Govt. de-motivate the sericulturists to take or continue that profession. It is one of the major reason behind the set back of Sericulture Industry in Murshidabad District. 87% small reelers at Khargram Block are complained about the lack of extension work at field. In case of big reelers it was around 73%. (Table 1 & Fig. 1) which also supports the above statements.

❖ Lack of Basic Education

Extension and Education are the complementary to each other. Without basic education, extension cannot disseminate to all strata of our society. In our study area, the Villages of Khargram Block are too much interior and the communication system is worse still now, which is also a reason for lack of basic education and extension. A large number of sericulturists, reelers and weavers are illiterate in the district. Present study indicates that 73% small reelers and 57% big reelers have no basic education (Table 1 & Fig. 1). It ultimately hinders in common dissemination of basic technology at farmers' level.

❖ Less Wages Rate

Human beings are doing their business for their own profit. But in reeling sector the picture is quite different than others. The reelers not get proper wages for their work. According to Das, (2015) most of the reelers of the district are engaged in reeling activity under the mahajans and middlemen at a fixed wage rate basis. The wage rates allowed by the mahajans and the middlemen for production of 1 kg of silk yarn are ₹ 180 and ₹ 190 respectively in the year 2011-12. The mahajans and middlemen sell the reeled yarns in the market at a higher rate. Thus, most of the reelers have no any direct contact with the weavers of the district. In our study area, the

wages rate is about 200-250 in the year 2016-2017. Which is still less than other sectors and if we see the survey result then we see that the small reelers are facing too much problem in this part. 100 % small reelers and 90% small reelers complained about the wages rate. Due to this reason some reelers migrate to other sectors.

❖ Lack of interest of future generation in this trade

Future generations are astringents and carrier of any industry. But present study indicates that only 33% of small reelers and 20% big reelers in Khargram block of future generation express their interest in that industry or take reeling as a profession in future (Table 1 & Fig. 1). Various problems associated with the Industry really makes that Industry meaningless in front of future generation. This is a real threat to that heritage Industry of Murshidabad District.

In weaving sectors weavers are facing following problems at field level

❖ Nature of Wages in the weaving Industry and Interest of future generation in this trade

100% weavers in our study area are not satisfied with their wages provided by samitis / Khadis or Mahajans (Table 2 & Fig. 4). This observation is laid by the Secretary "Gayespur Rashem Khadi O Gram Uddyog Samity", that in our district mainly three types of 'Silk Than' are made viz. 1800 ST, 2000 ST and 1800 DT. According to him the wages rate of various types of 'Than' are different. Generally weavers earned of ₹ 500-550, ₹ 550-650 and ₹ 650-700 for '1800 ST', 2000ST and 1800 DT respectively. To prepare a 'Than' minimum 3-4 days are required which is equal to 3- 4 man days.

So, from weaving a weaver earn ₹ 150 to ₹ 175 per day which is very less than other sector. Now normal wages of a labour is almost ₹ 300-350/day (exact double) according to nature of work. In this junction weavers lose their interest in the weaving Industry. This also fades the interest of future generation in this industry. Present study indicates that only 28% respondents of future generation express their interest in that industry or take weaving at a profession in future (Table 2 & Fig. 4).

❖ Source of Credit for the weavers

The result indicates that on an average 52 % weavers take credit from Samitis and rest of 48 % take credits from Mahajans (Table 2 & Fig. 2). Weavers who get credit for samitis sell their product to samitis and weavers who get credit from Mahajans sell their product to Mahajans (Table 2 & Fig. 3).

❖ Place of marketing for weavers.

The private weavers purchase silk yarns either from the open market or from the individual reelers or from the middlemen at a high rate and sell their produce to the local dealers or middlemen or at the local market. The sale of silk fabrics produced by the private weavers is being made through their own Sales Emporium established at the different parts of the district. The Silk Weavers Co-operative Societies purchase silk yarns from the silk marketing channels of the government like Tantuja, Tantushree, Manjusha etc. for weaving silk clothes. Sometimes the societies procure silk yarns from the private sources if not available from the Government sources due to shortage of stock, non-payment of dues etc. The Silk Weavers Co-operative Societies in the district sell their produce to their marketing channels- Tantuja, Tantushree, Manjusha, Bangashree etc. of Government of West Bengal. The payment is made 50% in cash and 50% in the form of supplying raw materials to the co-operatives namely, yarn cash payments from the marketing channels. Sometimes the societies sell their products to the silk merchants, middlemen, etc.

The result also indicates that substantial numbers of weavers are dependent on Mahajans interms of taking credit and selling their products (Table 2 & Fig. 3). The main reason behind that is there is a scope of getting 100% credit from Mahajans. Besides that sometimes Samitis procure clothes straight from Mahajans by completely ignoring their weavers. Even most of the samitis are reluctant to provide warp material to their weavers, in this junction weavers are forced to procure warp materials themselves.

But care should be taken to take proper measures to save the weavers from Mahajans. Because there is no limit in rate of interest, poor weavers take credit from Mahajans. Recently with the help of SIDBI (a Central

Govt. undertaking organization), a nongovernmental organization SAFHI has provided loan to weavers at a interest of 8% through UBI. But still this facility does not become popular at weavers level. In the Present survey weavers selected from Seabrata are working under Sevabrata so they are all getting raw materials and wages from Sevabrata. It ultimately reflects in the survey otherwise percentage of weavers dependent on Mahajans will be increased.

❖ **Participation of women in weaving industry.**

Participation of women in this industry is comparatively higher. Present study indicates that 60% women are interested in this sector (Table 2 & Fig. 4). Weaving is a delicate work which requires delicate skills in terms preparation warp, preparation of wept, winding, handloom weaving etc. Women can effectively do that. Present survey also reveals that organization like Seabrata promote participation of women in weaving Industry. This is a good effort for empowerment of rural women.

❖ **Availability of raw material for weaving industry**

Present result indicates that almost 96% weavers are satisfied with the availability of raw materials (Table 2 & Fig. 4). But most of the samitis are reluctant to provide warp material to their weavers, in this junction weavers are forced to procure warp materials themselves. Sometimes free entries of Chinese silk helps the weavers as well as Mahajans to procure their raw materials but i.e. is not good for overall prospect of the industry. It may collapse our domestic silk industry.

❖ **Facilities of training for the weavers**

Present result indicates that in an around only 60% weavers get training in the selected blocks (Table 2 & Fig. 4). This is completely reverse as per observation laid by Sarkar *et al.* (2010) and also Sarkar & Majumdar, (2017). According to them that in an around only 10% weavers get training in the Raghunathganj-I and Raghunathganj-II Block. The main reason behind that in this study a major portion of weavers are selected from Sevabrata and its adjoining place where organization himself takes the burden of providing training to their weavers. Lack of training is the main reason behind the ill development of skill of the weavers. It prevents implementation

of sophisticated looms particularly Power Lloom at weavers level. So this type of organizational effort is essential for upliftment weaving Industry.

Future Strategy

- ❖ An organized effort may be done in Murshidabad District to make poor rural people self sufficient to reel silk in country charka and earn significant profit without much initial investment.
- ❖ Rural women can start their own venture in their home. Availability of machineries and raw material, technical guidance and selling of products will be assured by the organization.
- ❖ In this way a model sericulture village will be developed which will justify the long heritage of sericulture of Murshidabad district.
- ❖ Implementation of Bivoltine seed Zone is essential for conducting crossbreed rearing throughout the year and ensures availability of raw materials during lean period.
- ❖ It will help to develop multiend reeling based industry in West Bengal.
- ❖ In case of weaving sector organized efforts are necessary to provide raw materials, training, proper wages and proper training to weavers. Present study reveals that Sevabrata like NGO has taken necessary steps in this direction.

CONCLUSION

The Present study was undertaken to know the major problems faced by reelers and weavers at field level in Murshidabad District of West Bengal. There is undoubtedly a lot of potential for development of sericulture in Murshidabad, if reeling and weaving sectors are properly improved. In our study we see that the availability of raw material is the major problem throughout the year in reeling sector. But slowly this scarcity may decrease on introducing new silkworm three way crossbreed Nistari × (SK6 × SK7). This three way cross breed can withstand high temperature and high humidity (Sarkar and Majumdar, 2017). Extension worker and government should care about that the rearers can get the seeds of this cross breeds

throughout the year. Another good news for reelers and weavers that at Shibpur (Nabagram Block) a Private entrepreneur established Multiend automatic reeling unit under “Comprehensive Handloom Cluster Development Scheme” (Ministry of Textile Govt. of India). In this way this type of small reeling industry should be established in our district. This industry can mitigate the problem of raw materials of weaving industry. The post-cocoon sector should be boosted so that the entire cocoon produce is consumed within the district. So proper initiations at every level are desirable for making the marketing system efficient. Efficient marketing organization may help in arresting wide fluctuations in prices of cocoons, silk yarns and silk fabrics. It will stabilize market trends. Local markets may stimulate rearing, reeling and weaving operations and thus improve silk industry in the district solving the financing problems.

REFERENCES

- Benchamin, K.V. and Jolly, M.S. 1986. Principles of silkworm rearing; in Proceeding of Seminar on Problems and Prospects of Sericulture. *Mahalingam. S. (ed.)*. pp. 63-108. Vellore, India.
- Chattopadhyay, S.K., Sarkar, K. and Bhattacharya, D. 2004. Key Points behind the Success of Cocoon Crops at Farmers Level in West Bengal. Dissertation submitted to the University of Kalyani for the partial fulfillment of Master of Science in Sericulture.
- Chattopadhyay, S.K. and Sarkar, K. 2006. A Manual of Practical Sericulture (Vol-1) - Published and Printed by Aakaash Publications. Berhampore, West Bengal.
- Chattopadhyay, S.K. and Sarkar, K. 2008. A Profile of Sericulture. *Journal of Environment and Sociobiology*, 5(1): 1-6.
- Choudhury, Ramananda 2009. *Balucharir Rupkatha: Gramin*: 45(5): 5-6.
- Choudhury, Ramananda 2009. *Banglar Resham Shilpa: Gramin*, 45(7): 5-13.
- Choudhuri, Sunanda 2008. Bharatiya Resham Shilpar Parichroma, *Baidik Jug thekey Bingsha Shatabdi: Gramin*, 44(4): 92.
- Collier, Ann M. 1974. A Handbook of Textiles, Pergamon Press, pp. 110.
- Das, R. 2015. Marketing Channels of the Silk Co-Operative Societies in Murshidabad of West Bengal – A Socio- Economic Scenario *Remarking*, 1(10): 39-42.
- Das, S.K., Pattnaik, S., Ghosh, B., Singh, T., Nair, B.P., Sen, S.K. and Subba Rao, G. 1994. Heterosis analysis in some three way crosses of *Bombyx mori* L., *Sericologia*, 34(1): 51-61.
- Das, S.K., Chattopadhyay, G.K., Moorthy, S.M., Verma, A.K., Ghosh, B., Rao, P.R.T., Sengupta, A.K. and Sarkar, A. 2006. Silkworm Breeds and Hybrids for Eastern Region. In *Appropriate Technology in Mulberry Sericulture for Eastern and North Eastern India* (17th and 18th January, 2006) workshop organized by CSR&TI, Berhampore, pp. 91-96.
- Functioning of Central Silk Board & Performance of Indian Silk Industry-As on April, 2017.
- Giridhar, K. and Ramesha, M.N. 2003. Compendium of Statistics of Silk Industry .Published by Central Silk Board.
- Giridhar, K. and Sampath, J. 1999. Compendium of Statistics of Silk Industry. Published by Central Silk Board.
- Inbanathan, Anand, 1993. Schedule Caste Women in Reeling Industry, *Indian Silk*, 32(7): 13-21.
- Krishnaswami, S. 1978. *New technology of Silkworm rearing*. CSR&TI, Mysore, pp. 1-10.
- Rangswami, S., Narasimhanna, M.N., Kasiviswanthan, K., Sastry, C.R. and Jolly, M.S. 1976. Sericulture Manual- 3 Silk reeling. FAO Agricultural Services, Bulletin, 15/1, Rome, 150.
- Ray, G.L. and Mondal, S. 1997. *Research Method in Social Science & Extension Education*, Naya Prakash, Calcutta.
- Sarkar, A. 2006. Mulberry Sericulture in West Bengal. Power point representation.
- Sarala, and Aravinda. 2008. “Problems and Prospectus of Sericulture in Shivamogga District, Karnataka” *Indian Journal of Marketing*, pp. 38-50.
- Sarkar, Kunal 2009. *Reshamer Katha: Suryabarta*, 4(3): 25-27.
- Sarkar, K., Baur, G.B. and Haque, Asmaul 2010. Problems of Weaving Industry at Raghunathganj-I and Raghunathganj-II Block. Dissertation submitted to the University of Kalyani for the partial fulfillment of Master of Science in Sericulture.
- Sarkar, K., Ray, S.K. and Hossain, Imran. 2015. Problems of Reeling Industry at Islampur Belt of Murshidabad District. Dissertation submitted to the University of Kalyani for the partial fulfillment of Master of Science in Sericulture.
- Sarkar, K. and Majumdar, M. 2017. ‘A Critical Analysis on Status of Rearing of Different Silkworm Breeds at Farmers Level of Nabagram Block in Murshidabad District of West Bengal. *Journal of Interacademia*, 21(1): 32-36.
- Sarkar, K. and Majumdar, M. 2017. ‘Why silk industry is showing declining trend in Murshidabad district and how they should work to regain the market share?’. *Journal of Interacademia*, 21(3).
- West Bengal State Sericulture Diary 2016. Govt of West Bengal. Department of Textiles (Sericulture).