

Historical Background and Status of Sericulture Industry in Assam - A review

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ABSTRACT: Assam is the leading producer of non mulberry silk which produces around two-thirds of India's total non mulberry silk production and so far as the production of muga silk. The rise in the annual production of non mulberry raw silk in Assam in last 10 years showing an increasing trend with several folds where as the mulberry sector in Assam is still in nascent condition with few tons of annual production. In Assam, most of the people lives in villages and has a diverse culture and tradition throughout the state. The sericulture sector holds enormous promise for the rural population in providing their livelihood in the state. The present study was undertaken to review the genesis and current status of the sericulture sector of Assam, because there is enormous scope for development of sericulture sector in the rural areas due to its high potentialities of raising income of people in Assam if scientific rearing of silkworm for commercial purpose can be considered seriously as a source of entrepreneurship.

Keywords: Eri, Muga, Mulberry, Production, Raw silk, Sericulture, Silkworm.

INTRODUCTION

Sericulture is the processes involved in the production of natural silk by rearing of silk producing insects comprises both on-farm and non-farm activities which are primarily village based in Assam as well as other North Eastern states of India. Among different cottage industries, this industry occupies a significant position in the rural economy of Assam. This sector is highly labour-intensive and in comparison to other agricultural goods, silk has high value which requires less land area for its production and processing. This elegant textile is popularly known as “Queen of Textiles” in the world which having the qualities such as natural lustre, affinity for dyes, light weight, soft touch and high durability (Bukhari and Kour, 2019). The sericulture industry provides employment to many people in rural and urban areas in Assam. It has high potential for higher returns and play vital role in improvement of rural economy in India (Ganie *et al.*, 2012). Also steady market demand and remarkable approach has led to the widening of this industry (Bhushi and Pharsiyawar, 2004).

Sericulture is the only cash crop which provides frequent and attractive through the year (Jagannath, 1995, Kamili and Masoodi, 2000). In terms of production China occupies followed by India. Other countries such as Brazil, Uzbekistan, Thailand, Vietnam, Korea Republic, Japan, Iran, Turkey, Bulgaria, Yugoslavia also engaged in silk production (Muniraju, 2008).

A. History of sericulture in Assam

Assam is well known for the production of high quality silk since ancient times to all over India and abroad (Mignonette, 2004). The art of sericulture and rearing of silkworm for cocoon production and the manufacture of various silk fabrics were a part of the Assamese culture since ‘Ramayana’ and the Kautilya’s ‘Arthasastra’. Kautilya mentioned in the ‘Arthasastra’ about the production of *Dukula*, a kind of Silk fabric produced in ancient Assam. This *Dukula* had three varieties. The first variety which was white in colour and very soft in texture was known as *Vangaka*. It can be identified today as *Paat* silk. The second variety known as *Paundraka* can be identified as Eri silk while the third variety which was known as *Suvarnakudya* due to its golden colour can be easily identified as Muga silk (Dhavalikar, 1972). The ancient book “*Kalika Purana*” also well records the use of silk in the worship of deities in ancient Kamrup (Shastri, 1992). Some historians mentioned that the knowledge of sericulture arrived with the *bodo* group of people who migrated from China around the period of 3000-2000 BC. Besides, there was another trade of silk through the south-western silk-road which started from China, passed through Myanmar and Assam finally getting connected to the main silk-road in Turkmenistan. As per the Sanskrit text “*Harshacharita*” during the coronation ceremony of King Harshavardhan, king Bhaskarvarman of Kamrup gifted silk along with other precious items (Chatterjee, 1998).

Sericulture industry in Assam comprises both mulberry (*Pat*) and non mulberry (*Eri & Muga and oak tasar*) sericulture. The Tibeto-Burman people along with their migration introduced some information on sericulture from China to Assam. The Muga culture which is known as 'pride of Assam' is believed to be originated in the sub-himalayan region of NE India. However, some authors stated that the muga culture was introduced by *Ahom* kings into Assam. Initially this culture was confined to the *Ahom* community mainly in upper Assam and the people were well familiar with the rearing, spinning and weaving. The muga silk yarn was used to prepare a variety of costumes and the weavers of *Ahom* kingdom had good reputation and they were engaged to supply dresses for the Royal folks and nobleman. A unique muga silk was prepared in those days by rearing muga silkworm on 'mejankari' or 'chapa' leaves, which had exceptional quality like glossiness and creamy white colour. It is found that the first scientific study of muga silk moth was made by 'Heifer' in 1837 and the first official description related to muga culture was traced in the year 1662. The muga silk was registered as a geographical indication (GI) in the year 2006 and got the GI tag in the year 2007 under the Intellectual property right (Craftsvilla, 2017).

In Assam, a spun silk mill was established in the year 1962 at Jagiroad to consume eri cocoons. Unfortunately this mill is not functioning now. Afterwards a mini spun silk mill was established in Kokrajhar in the year 2009. Regarding the muga silk reeling and weaving, it is not very much extended throughout the state. More than 80% of muga cocoons produced in different localities are sold to commercial reelers of Sualkuchi, where industrial reeling and weaving have made the village as "Manchester of the East" or "Manchester of Assam".

Sualkuchi is the most popular silk weaving village in the entire North-Eastern India where more than five thousand silk looms for *pat*, *eri* and *muga* are working, of which around 2000 looms are only used for muga silk cloth production. This Sualkuchi silk village was established in 17th century by Momai Tamuli Barbarua (Baishya, 2005).

B. Strengths of sericulture industry in Assam

Sericulture is an occupation of low investments with high income and is highly advantageous as compared to other agricultural crops. Sericulture involves easy technologies which can be adopted by all farmers irrespective of literacy and does not require sophisticated equipments. In Assam, sericulture is mostly practiced by small and marginal land holding tribal people. In developing countries like India, silk industries play a very important role in the upliftment of socioeconomic condition of society. Silk industry provides around 8 million folks in rural and semi-urban areas in India during the year 2019-20. It is the only cottage industry that provides abundant work for the women in the rural and semi urban areas. Huge export potential with large domestic market and product diversification are the strength of this industry which can help to earn additional income to upliftment of economic condition of poor people.

C. Production trends of silk production in Assam

Huge quantities of raw silk are produced every year in Assam along with other states in India. The annual production of raw silk rises from 1880 metric tons in 2010-2011 to 5026 metric tons in 2018-2019 (Table 1), which is a remarkable progress in the development of silk industry in Assam.

Table 1: Trends in raw silk production of Assam from 2010–11 to 2019-2020 (MT).

Sl. no	Year	Mulberry	Eri	Muga
1	2010 - 2011	18.00	1745.00	117.00
2	2011 - 2012	16.75	1976.00	118.76
3	2012 - 2013	25.00	1934.30	108.52
4	2013 - 2014	27.00	2612.70	126.04
5	2014 - 2015	31.00	3055.00	136.00
6	2015 - 2016	39.00	3143.00	142.00
7	2016 - 2017	52.00	3619.00	139.00
8	2017 - 2018	59.00	4645.00	157.00
9	2018 - 2019	69.00	4764.00	193.00
10	2019 - 2020	57.60	3680.00	159.90

Source: Annual report, Central Silk Board, Bengaluru

Fig. 1 describes the rise in the annual production of raw silk in Assam in last 10 years from 2010-2020, showing the increasing trend. The production of mulberry silk is still in budding condition with negligible amount of production where as eri and muga silk production is increasing several folds since 2010 to 2020. Due to pandemic of novel corona virus silk production is slightly declined in the year 2020-21. In Assam, tasar culture is being practiced only in Karbi Anglong and Dima Hasao districts with small quantities. During last few decades, the advancement in industrialization and urbanization has depleted the forest coverage which resulted in the erosion of biodiversity. However there is

vast potentiality to establish tasar silk industry including mulberry silk industry in Assam by establishing food plantation along with awareness training (Directorate of Sericulture, Govt. of Assam, 2021).

D. Problems of silk industry in Assam

There are some problems influencing sericulture industry in Assam. Following are the problems associated with sericulture sector in Assam.

- (i) Imports of low-priced textiles from other countries
- (ii) Use of old silk manufacturing process

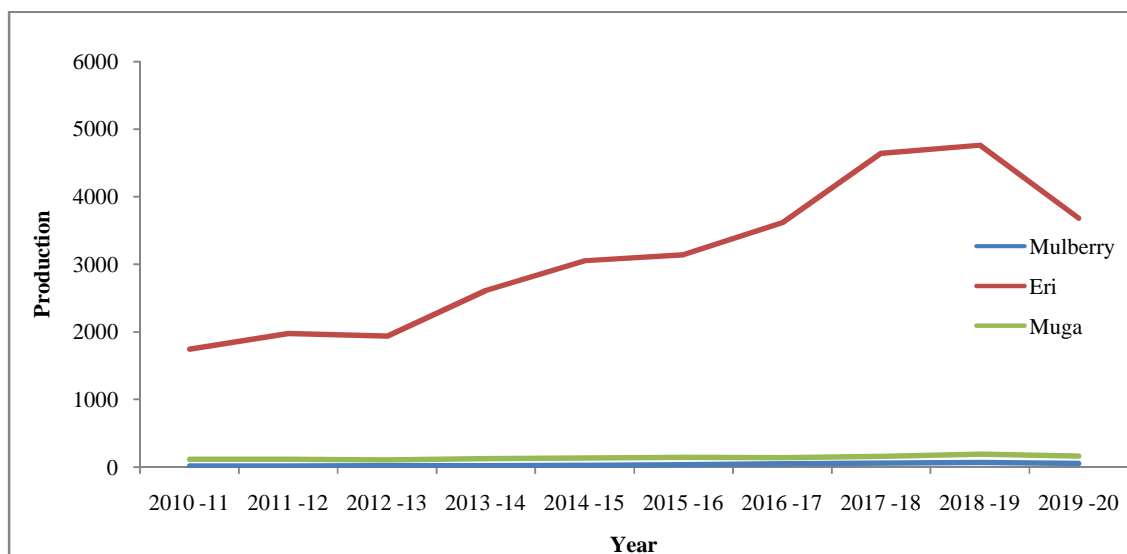


Fig. 1. Trends in raw silk production of Assam from 2010-11 to 2019-20 (MT).

(iii) Use of poor quality seeds and less productive silkworm breeds

(iv) Poor supply chain management and increase import of silk from China are main problems of sericulture industry in Assam (Ravikumar, 2011).

CONCLUSION

India is the only country in the world where all the four varieties of silk viz., mulberry, tassar, eri and muga are produced (Bharathi, 2016). India has tremendous potential for development of sericulture industry but yet unexploited, however, development is not far away (Dewangan *et al.*, 2011). Assam has the most important advantage that the golden yellow coloured muga silk is produced only in Assam in the world. Nowadays the Assam silk industry is well established in the Indian silk sector and the growth scenario for the industry seem to be cheerful. There are some limitations such as small land holding for cultivation of host plant, lack of marketing network and insufficient supply of disease free seed act as a barrier for development of the sericulture sector in Assam. Research on additional technology and in the various aspects of sericulture with standardization of silk and silk products will positively expand the silk industry rapidly. Providing good quality seeds, imparting awareness among the farmers on pest & disease and rationalization of marketing system for cocoons and raw silk may established Assam's silk industry very well in World silk market. The improvement of sericulture industry in this manner may be considered as a way to increase production. It also holds promise as an employment generating sector in rural as well as semi-urban areas.

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