CHAPTER - 9

SERICULTURE PRACTICE IN EASTERN INDIA - A DETAILED NARRATION ABOUT SERICULTURE IN THE STATE OF WEST BENGAL

In West Bengal the geo-ecological condition is more or less ideal for mulberry cultivation and silk processing. The prospect of non-mulberry silk culture is also very high in western and northern districts. As it has several industrial processing sectors it provides employment not only to the male adults but also to women and children who mostly reside in rural & urban areas.

The sericultural operations are conducted almost all over the year. At present this occupation acts as a supplementary source of income in most of the districts of West Bengal. This can become a whole-time engagement if production is organized and the marketing and distribution systems are channelised. In areas where agriculture is limited particularly in the drier western and northern parts of West Bengal, the development of free breeding forest based TASAR and ERI have provided employment to a large section of tribals, Adibasi families and also to poor people. In the agricultural belt of central and southern districts mulberry culture and silkworm rearing has become very popular, as this crop can be cultivated on non-agricultural or waste land. In the traditional areas of Malda, Murshidabad, Birbhum, Nadia, etc, a large scale diffusion programme is initiated. Recently the adjoining areas of West -Dinajpur has also been brought under mulberry cultivation. The practice of silk reeling and weaving have become popular to the villagers with the help of government assistance and financial aid. A large quantity of silk cocoons, silk yarn and fabrics are produced annually both by the private enterprises and registered units. The dyeing and printing sector of sericulture provides employment to a large number of urban dwellers in and around Kolkata and Shrirampur. The prospect of exporting TASAR fabric is also quite promising.
HISTORICAL BACKGROUND OF SERICULTURE IN WEST BENGAL:

West Bengal has a very old tradition of mulberry based sericulture which dates back to medieval and late medieval periods. Bengal Silk came to prominence during the Muslim regime in the 13th Century and the Moors exported this commodity to European markets.

According to the statement of Mukherjee (1998), the silkworm which used to be reared in Gangetic Bengal as early as 12th and 13th Century was an indigenous multivoltine heat resistant variety commonly known as “nistari” (Bombyx croesi). Apart from this other varieties of silk worm Bombyx textor and Bombyx fortunatus and Bombyx sinensis were also prevalent in Bengal. From the writing notes of Francois Berner (1656-1668 AD) J.B. Travenier (1676 AD) George Foster (1808 A.D) the flourishing condition of silk industry under Dutch, Portugees and English merchants is known.

An organized development of sericulture and its proper exploitation as a resource was first initiated by the British East India Company in first quarter to mid 19th century. Under its care and organizations the industry flourished for about a century yielding handsome return to promoters. The British traders were instrumental in introducing market economy in sericulture in greater parts of the world. The sericulture industry of West Bengal is largely situated in the areas of raw material source. Being agro-based, the major concentration is found to be in the rich agricultural belts of Malda-Murshidabad, Birbhum and parts of Bankura and West Dinajpur.

GEOGRAPHICAL ENVIRONMENT FOR THE PRACTICE OF SERICULTURE IN WEST BENGAL:

Natural environment plays an important role for the development of sericulture in West Bengal. Sericulture includes cultivation of mulberry plantation and rearing of silkworms. Among various physical requirements the following are important for mulberry cultivation and silkworm rearing.
(i) Terrain type:

Mulberry leaves are the principal food of silk worm and it need upland surface and alluvial flat lands for cultivation. In Darjeeling and Kalimpong subdivision where rough mountaneous regions are located mulberry cultivation can be grown under controlled conditions. In West Bengal mulberry is usually grown in the plains with average elevations varying between 10 to 40m and in the plateau section it varies from 60 to 280m. This cultivation is more concentrated in Malda, Murshidabad than Bankura, Birbhum and West Dinajpore. In lower altitudes (foothills) of Darjeeling district, its cultivation is limited.

(ii) Drainage pattern:

Mulberry prefers well drained surface. The plants are damaged in water logging. As mulberry plants need adequate supply of water during growing season, continuous supply of water is required for best leaf harvest.

(iii) Climate:

The various components of climate play an important role in mulberry cultivation and silk worm rearing. Any variation in temperature, rainfall, or humidity condition may affect the cultivation of mulberry plants or rearing of cocoons at different harvesting season. Mulberry crops prefer mild temperature generally not exceeding 26°C, the threshold is up to 31° – 32° C and humidity varying between 70 – 90 per cent.

In West Bengal Morus indica variety of mulberry is cultivated. Depending on the species mulberry plants may be (i) bush, (ii) high bush, (iii) tree type. Of these the most common are the bush and high bush types which are cultured throughout the plains but tree types are occasionally found in the hilly terrain. In the plains of West Bengal rearing of cocoons is much affected by high temperature and high humidity. During summer the temperature rises up to 40°C and during monsoon season the humidity is above 90 per cent. To balance with high temperature and humidity conditions an indigenous variety of cocoon is usually reared. This is known as nistari type which is multivoltine and heat resistant type (Mukherjee, 1998).
(iv) Soil condition:
Dry clay loamy soils having pH 6.5 to 7.0 are needed for mulberry cultivation. As plants are deep rooted they can extract soil moisture from depth.
Nitrogen, phosphorous and potassium level in the soil should be maintained. Any deviation in the soil increases and decreases the metabolic activities of the plants (Roy Chowdhury, 1963).

ECONOMIC FACTORS FOR RUNNING SERICULTURE IN WEST BENGAL:
There are a wide range of economic factors that determine the growth or success of sericulture in any particular region. These are:
(1) Supply of raw material.
(2) Availability of labour.
(3) Facilities for obtaining cheap power or fuel for reeling operation of silk.
(4) Transport.
(5) Organized market facilities.
(6) Flow of capital to carry sericulture operation on a large scale.

(1) Supply of raw material:
Supply of good quality of mulberry leaves and disease free layings are extremely important. If the quality of mulberry leaves is inferior the cocoons naturally are of inferior quality, thereby producing inferior grade of threads.
Another important factor is the supply of disease free eggs. At present Government of West Bengal has made strong arrangements for the preservation of disease free seeds, so that these can be supplied to the sericulturists in the villages. At Kalimpong, a seed station has been established.

(2) Availability of labour:
The availability of cheap labour is one of the prerequisite for the industry. In Malda and Murshidabad a large number of seasonally employed agricultural cultivators are available for sericulture. Female labour participation in this industry is high in West Bengal.

(3) Facilities for obtaining cheap power or fuel:

The mechanical reeling operation needs cheaper and regular power supply. Since the state power supply is irregular and there is a regular short fall in certain areas saves cities and towns, it is desirable to have ones own generation or on cooperative basis so that labour wastage is avoided.

(4) Transport:

Expansion and development of sericultural industry is dependent on maintenance of developed transports. This is to link field supply of mulberry leaves, seed cocoons from north Bengal to central and western parts. Since in Malda, Murshidabad, Bishnupur, Bankura and Birbhum, where reeling and weaving take place transport link is to be maintained. Finished fabrics are transported to some well established centres in Shrirampur and Kolkata where dyeing and printing are done. The printed sarees and other categories of silk fabrics ultimately are sent to different markets in India and abroad.

(5) Organized market facilities:

There is no organized market in West Bengal. That is why the sericulturists have to face various difficulties in marketing of their products. The entire business starting from mulberry cultivation to silk worm rearing and production of silk fabrics are carried out in open market. This is buyer's market.

(6) Flow of capital to carry sericulture:

As capital is important prerequisite factor for mulberry sericulture, a fair amount of investment is required during initial stage of production.