

SERICULTURE INDUSTRY IN INDIA “A COMPARATIVE STUDY OF JAMMU AND KASHMIR AND MADHYA PRADESH”

Sheikh Masrat* Dr. A. K. Tripathi**

*Ph.D. Research Scholar, Jiwaji University, Madhya Pradesh.

**Assistant Professor, Government SLP College, Madhya Pradesh.

Abstract

The silk trade flourished in India during the medieval period. India is a home to a vast variety of silk secreting fauna which also includes an amazing diversity of silk moths. This has enabled India to achieve the unique distinction of being a producer of all the five commercially traded varieties of natural silks namely, Mulberry, Tropical Tasar, Oak Tasar, Eri and Muga. . India is the Second largest producer of silk in the World. Among the four varieties of silk produced, in 2015-16, Mulberry accounts for 71.8% (20,434 MT), Tasar 9.9% (2,818 MT), Eri 17.8% (5,054 MT) and Muga 0.6% (166 MT) of the total raw silk production of 28,472 MT. India exports considerable quantity of silk goods and the value of these silk goods is more than 15 per cent of the total raw silk production. Sericulture industry provides employment to approximately 8 million persons in rural and semi-urban areas in India. Of these, a sizeable number of workers belong to the economically weaker sections of society, including women.

Keywords: Sericulture, employment, income generation etc.

Introduction

Traditional States of Sericulture	Andhra Pradesh, Jammu and Kashmir, Karnataka, Tamil Nadu, West Bengal
Non-traditional States of Sericulture	Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Kerala, Maharashtra, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Sikkim, Tripura, Uttaranchal, Uttar Pradesh.

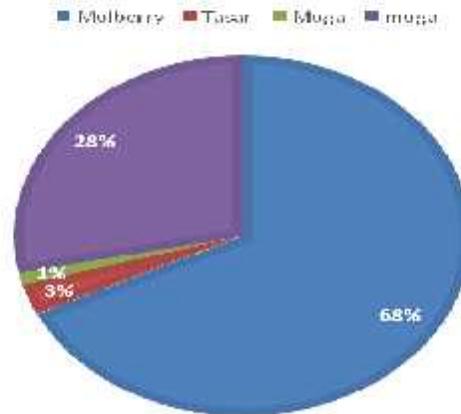
Stages of Production

The stages of production are as follows:

- The silk moth lays thousands of eggs.
- The silk moth eggs hatch to form larvae or caterpillars, known as silkworms.
- The larvae feed on mulberry leaves.
- Having grown and moulted several times silkworm weaves a net to hold itself
- It swings its head from side to side in a figure '8' distributing the saliva that will form silk.
- The silk solidifies when it contacts the air.
- The silkworm spins approximately one mile of filament and completely encloses itself in a cocoon in about two or three days. The amount of usable quality silk in each cocoon is small. As a result, about 2500 silkworms are required to produce a pound of raw silk.
- The intact cocoons are boiled, killing the silkworm pupae.
- The silk is obtained by brushing the undamaged cocoon to find the outside end of the filament.
- The silk filaments are then wound on a reel. One cocoon contains approximately 1,000 yards of silk filament. The silk at this stage is known as raw silk. One thread comprises up to 48 individual silk filaments.
- The major activities involved in a sericulture industry are:
- Cultivation of silkworm food plants
- Rearing of silkworms for the production of raw silk
- Reeling the cocoons for unwinding the silk filament
- Other post-cocoon processes such as dyeing, weaving, printing and finishing.

Variety-wise share of raw silk production during the year 2015-16 has been depicted in below Figure.

**VARIETY WISE PRODUCTION OF RAW SILK
2015-16**



Performance of Sericulture Sector

Year	XI Plan (2011-12)	XII Plan (2012-17)	XII Plan Achievement			
	Achment.	Target	2012-13	2013-14	2014-15	2015-16(p)
Mulberry Plantation (Lakh ha.)	1.81	2.40	1.86	2.03	2.20	2.20

Raw Silk Production

Year	2011-12	2012-17	2012-13	2013-14	2014-15	2015-16
Mulberry (Bivoltine)	1685	5000	1984	2559	3870	2789
Mulberry (Cross breed)	16587	18000	16731	16917	17520	20165
Sub Total Mulberry	18272	23000	18715	19476	21390	21954

VANYA

	2011-12	2012-17	2012-13	2013-14	2014-15	2015-16
Tasar	1590	4562	1729	2619	2434	1592
Eri	3072	4238	3116	4237	4726	4381
Muga	126	200	119	148	158	143
Sub Total (Vanya)	4788	9000	4964	7004	7318	6116
Grand Total	23060	32000	23679	26480	28708	19070
Cumulative employment generation(lakh persons)	75.60	9242	76.53	7850	80.30

Source: The data received from DOSs & compiled at CSB (Central office) P: provisional

Exports And Imports

Exports	Unit	2011-12	2012-13	2013-14	2014-15	2015-16
Silk goods Value	Crore Rs.	2303.56	2240.61	2381.59	2720.76	2406.19
Silk waste Value	Crore Rs.	49.77	62.97	99.3	109.12	89.8
Foreign exchange earning	Crore Rs.	2353.33	2303.58	2480.89	2829.88	2495.99
	Mn. US\$	491.10	423.37	410.61	471	389.53
Import Raw Silk Qty.	MT	5685	4959	3260	3489	3529
Value	Crore Rs.	1111.53	1238.56	896.44	970.82	1006.16

Source: Central Silk Board

Employment Generation

Sericulture industry provides employment to approximately 8 million persons in rural and semi-urban areas in India. Of these, a sizeable number of workers belong to the economically weaker sections of society, including women. 60 lakh persons are engaged in various sericulture activities in the country. Every 3.07 kg of silk produced and used in handlooms

generates gainful employment of one man year. This potential is par-excellence and no other industry generates this kind of employment, especially in rural areas, hence, sericulture is used as a tool for rural reconstruction. Sericulture provides:

1. Provides vibrancy to village economies
2. Low Gestation, High Returns
3. Women friendly Occupation
4. Ideal Programme for Weaker Sections of the Society
5. Eco-friendly Activity
6. Satisfies Equity Concerns

Employment Generation from Sericulture

Years	Employments (in Lac Persons)
2011-12	75.60
2012-13	76.53
2013-14	78.5
2014-15	80.3
2015-16	82.5

Source: Central Silk Board

Policies of Government of India for Sericulture

- Transfer of Technology (TOT)
- New Breeds/Varieties approved for popularization
- Brand Promotion & Technology Up-Gradation
- Centrally Sponsored Schemes (CSS)- Catalytic Development Programme
- Bivoltine Sericulture Technology Development Project:
- NERTPS Project for Sericulture (support for North East Region) North East Region Textile Promotion Scheme
- Sericulture in Jammu and Kashmir
- Sericulture industry is supervised by the state government of Jammu & Kashmir. As the state provides little raw-material for silk, weaving and printing of silk is not done on large scale in the valley. But it is a known fact that the Mulberry cocoon reared in the state of Jammu and Kashmir is the superior quality in the Asia.

Present Status of Sericulture in the State

Mulberry Sector	
Number of Departmental Nurseries	173
Total area of Nurseries	963 Acres
Production capacity of saplings / year	30 Lac
Present annual sapling production in departmental nurseries	15 Lac
Total available mulberry wealth in the state	110 Lac Trees
Commercial silkworm Rearing	
Numbers of Rearers	29400
Number of Sericulture Villages	2800
Annual Cocoon production (MT)	1105.00
Income Generation (Lac)	2226

Source: Sericulture Development Department Jammu And Kashmir

Sericulture in Madhya Pradesh

The Madhya Pradesh Government started sericulture in 1955 with establishing a few mulberry centers in district of Indore. It was a completely new and non-traditional activity for the state and started with the objective of providing employment to the poor people of rural areas. Initially there were only 10 silk centers in the state and over a period of 10 years, the number of silk center increased to 70 in seven districts. The state enjoys a tropical climate, suitable for mulberry cultivation. At present mulberry sericulture is practiced throughout the state. There are 80 Mulberry Swablamban Centres in all the 21 districts of the state covering an area of 673 acres under plantation. Under this scheme one acre of mulberry is planted in the government farm by the farm laborer, who takes the benefits of the scheme. In addition to this, an amount of Rs.6,200 was also given to them as a revolving fund, while irrigation facility, rearing house and other equipment for rearing of cocoon were arranged by the department.

Production of Mulberry

Name of the District	Production of Mulberry (in Kg.)
Hoshangabad	87517
Narsimhapur	49517
Balghat Mandla	34300
Vidisha	28790
Rajgarh	13788

Source: Department of Sericulture, Madhya Pradesh

Tasar Cocoon Production in Madhya Pradesh

Years	Tasar Cocoon Production (in Lac)
2010-11	195.30
2011-12	220.50
2012-13	240.00
2013-14	270.00
2014-15	290.00
2015-16	297.50

Source: CSB

Year	Number of Beneficiaries
2011-12	28000
2012-13	35000
2013-14	36500
2014-15	45000
2015-16	57000

Source: Directorate of Sericulture Department, Madhya Pradesh

Jammu and Kashmir vis a vis Madhya Pradesh

Sericulture in Jammu and Kashmir	Sericulture in Madhya Pradesh
<p>Sericulture a traditional practice. Rearing, reeling and weaving have been a tradition since ages, Ideal climatic conditions for quality Bivoltine cocoons production</p> <p>Availability of basic infrastructure with the state sericulture department.</p> <p>Low-level of industrialization- availability of farm/family labor.</p> <p>Increasing market demand for quality silk.</p>	<p>Madhya Pradesh comes under non-traditional states for the production of silk in India.</p> <p>Silk production – Mulberry, Tasar and Eri.</p> <p>Madhya Pradesh is one of the main Tasar producing state.</p> <p>5% of the total Tasar produced in the state.</p> <p>Quality and quantity has a direct bearing on cocoon harvest.</p>

Finding and Recommendations

Findings

- The present global scenario clearly indicates the enormous opportunities for the Indian silk industry. Efforts under the last three plans have brought some significant changes.
- The silk board provides assistance for international marketing to those interested in export.
- Sericulture is not only a tradition but also a living culture. Sericulture integrates very well with the general lifestyle of people in the rural areas.
- Sericulture and silk production have an enormous potential in our country provided. It is made available to rural people especially to women and its marketing is organized independently.
- Sericulture is highly labour intensive in all activities. It provides income and employment to the rural poor especially farmers with small land-holdings and the marginal weaker sections of the society.
- The major proportion of the silk fabric in demand in India is in the form of sarees.
- The state governments has enhanced the support price for seed cocoons produced by the farmers for production of quality silkworm seed in the department.
- Farmers on their part blame the short supply of mulberry leaves and fertilizers also being responsible for the debacle of the sericulture industry in the state.
- Insufficient adaptation and proliferation of technology packages developed through R &D efforts.

- Marketing facilities are not adequate.
- Weak sericulture extension mechanism.
- Achievement of self-sufficiency in silk production as well as improvement of quality in production of raw silk, are the major hurdles ahead.
- Ground realities clearly suggest that sericulture sector is an important sector of our country which demands special attention in order to boost the overall economy of the State.

Recommendations

- Increase in area under mulberry cultivation through large scale plantation of improved mulberry cultivators.
- Quality cocoon production for sustainable sericulture as a means of income generation for the farmers.
- Introduction and development of region and season specific silkworm races and mulberry varieties.
- Promotion of mulberry sericulture enterprise in hilly, border and backward areas.
- Contribution of women in sericulture development needs to be recognized.
- Give sufficient research focus in breeding to obtain suitable bivoltine races.
- Middle level functionaries and technicians should be trained.
- Providing of cocoon bank and silk exchange facilities to the private enterprise.
- Promote mechanization and rationalization in the field cultivation, silkworm rearing and silk reeling to bring down the cost of raw silk.
- Providing effective linkage between research institutes of central silk board, Government of India and agriculture universities of the states for transfer of technology.
- Dissemination of sericulture information through electronic and print media for the benefit of the farming community.
- Apply eco-friendly integrated nutrient, disease and pest management strategies both for mulberry and silkworm.

References

1. Ahmad Mohamed Khaiser [1997]: Economics of silk reeling with reference to production & marketing in Karnataka, University of Mysore.
2. Anjum Darakhshan [2011]: Entrepreneur Development: a case of JKEDI in Jammu & Kashmir, International Journal of Multidisciplinary Research Vol 1 Issue 2
3. Bhat Tariq Ahmad, [2014]: An analysis of public private partnership (PPP) in Sericulture in Jammu & Kashmir, Journal of Economics and Sustainable Development, Vol 5 Issue 11.
4. Dash Purusottam, Dash Subhashree and Behera Sasmita [2015]: women in developing sustainable livelihood system through sericulture in rural India, Odisha Review.
5. Dewangan S. K. [2013]: Livelihood Opportunities through Sericulture a model of Gharghode Tribal block, Raigarh District, American Journal of Environmental Science Vol. 9 Issue 4.
6. Dewangan S. K. & K. R. Sahu, [2011]: Socio-Economic empowerment of tribal women through Sericulture, International Journal of Business and Management Vol 6 No. 12.
7. Dhiraj K., Kumar R. Venkatesh [2011]: Application of Foliar Nutrients to increase productivity in Sericulture, Journal of Entomology.
8. Gangopanday D. [2008]: Sericulture industry in India- A review, India, Science & technology
9. Ganie Nisar Ah., Kamli Afifa S. [2012]: Indian Sericulture Industry with particular reference to Jammu & Kashmir, International Journal of Advanced Biological Research, Vol 2, issue 2.
10. Gupta Harshit [2013]: Employment generating factor in Sericulture in Karnataka & Marketing research on promotional strategies of KSIC, Indian Institute of Management, Lucknow
11. Jayaram, Argun H. Malik, Lakshman V., et.al [1998]: Labor Employment under different Mulberry farm holding- a comparative study, Indian Journal of Sericulture, vol 37 issue 01. p 26-52
12. Kakoti Romesh Kr [2012]: Sericulture as well as Ericulture as a source of employment and income, IJCAES special issue on Basic, Applied & Social Science Vol 2.
13. Lakhman, Roa K. Ganpat, et.al [1999]: An empirical investigation on Labor productivity in Mulberry Sericulture, Indian Journal of Sericulture. Vol 30 issue 1 p 48-52
14. Panday Rakesh K. [2014]: Occupational health problems in silk industry, Regional Sericulture Research Station Miransahib Jammu, Economic & political weekly, 21 January 2014.
15. Patil B. K., Singh K. K. [2009]: Sericulture: An Alternate source of income to enhance the Livelihood of small-scale farmers and tribal Communities, Research Report 2009.
16. Prakasam K. & Ravi G. [2014]: Sericulture- An ideal enterprise for sustainable income in Erode District of Tamil Nadu, Language in India, Vol 14 No. 9.