



CHAPTER VIII

SERICULTURE

India continues to be the second largest producer of silk in the world and has the distinction of producing all the four varieties of silk. In 2001-02, mulberry accounted for 91.3%, eri 6.7%, tasar 1.4% and muga 0.6% of the total raw silk production in the country. Sericulture is an important labour-intensive and agro-based

cottage industry, providing gainful occupation to more than five million persons in the rural and semi-urban areas in India. Of these, a sizeable number of workers belong to the economically weaker sections of society. There is substantial involvement of women in this industry.

Production

Production and employment during the year showed increase, as follows:

Sl. No.	Particulars	2001-02 Achievement	2002-03 Anticipated achievement
I.	Standing Area under mulberry (Lakh ha.)	2.32	2.40
II.	Production of raw silk (tons)	17347	18700
III.	Employment (lakh persons)	55.00	56.50

Silk Exports

Total silk export earnings during the years 2000-01, 2001-02 & 2002-03 (April to July) were as follows:

Items of Export	Rs. in crores		
	2000-01	2001-02	2002-03* (April -J
1. Natural Silk Yarn, fabrics & Made-ups	1622.79	1309.47	464.36.
2. Readymade Garments	642.82	720.88	188.49
3. Silk Carpets	110.88	168.45	26.82
4. Silk waste	45.49	36.58	6.80
Total	2421.98	2235.38	686.47

* Provisional figures & subject to change.

Source : Directorate General of Commercial Intelligence & Statistics, Kolkata



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CENTRAL SILK BOARD

The Central Silk Board(CSB) was set up in 1949 when Central Government assumed responsibility for the development of the silk industry by Parliament passing the Central Silk Board Act, 1948. Headquartered at Bangalore, and headed by a Chairman and 35 members, the Board's work is in the three broad areas of Research & Technology Development, Seed Maintenance, and Development of Sericulture & Silk Industry, to support, supplement & facilitate the efforts of the State Governments. It also extends support to States in the form of joint projects and offer of developmental schemes. The Board also undertakes voluntary inspection of exportable silk goods for quality.

Research and Development

The main Research & Training Institutes of the CSB function to provide R&D and Training support for the development of sericulture. The Institutes at Mysore (Karnataka), Berhampore (West Bengal) and Pampore (J&K) deal with mulberry sericulture and the one at Ranchi (Bihar) deals with Tasar. The newly established Institute at Ladoigarh, Jorhat (Assam) deals with Muga and Eri. Regional Sericultural Research Stations (RSRS/RTRS) for mulberry and non-mulberry have been functioning for the dissemination of research findings and tackling the regional field issues of the industry. Besides, a network of Research Extension Centres (REC) for mulberry and non-mulberry are also functioning to provide extension support to sericulturists. In order to provide R&D support in post-cocoon processing

the Board has established a Central Silk Technological Research Institute (CSTRI) at Bangalore. In addition, the CSB has also set up a Silkworm Seed Technology Laboratory (SSTL) in Bangalore (Karnataka), a Central Sericultural Germplasm Resources Centre (CSGRC) at Hosur, (Tamil Nadu) and a Seri-Biotech Research Laboratory (SBRL) at Bangalore.

Research work on the on-farm side is directed mainly at evolving stress tolerant mulberry varieties, which give high leaf yield, breeding superior silkworm hybrids, besides evolving improved techniques of silkworm rearing, integrated control of pests and diseases of both mulberry and silkworms. During 2002-03 (upto Sept., 02), one Multivoltine hybrids was authorized for commercial use and eight (8) new silkworm hybrids evolved by CSB research institutes were approved for Race Authorization trial during autumn and spring seasons at all the zones.

Research work on tasar, muga and eri silk is directed towards improvement of productivity potential of non-mulberry silk in India. A suitable technique has been developed to promote rooting in the cuttings of Terminalia arjuna.

On the post-cocoon sector, two model commercial Dupion silk reeling machines designed and fabricated during 2002 were demonstrated and popularized for the production of superior grade dupion silk filament. Also drawings were supplied to machine manufacturers for production. Efforts are on to popularize the dupion reeling technology package in different

reeling clusters.

Seed Maintenance

Under the National Silkworm Seed Project (NSSP), a network of Basic Seed Farms(BSF) produce and supply the basic seed for production of commercial silkworm seed in the seed production centers functioning under CSB and State Department. Similarly, the Silkworm Seed Production Centres (SSPCs) functioning under NSSP in different States support the industry. These commercial SSPCs have produced 70.82 lakh dfls during 2002-03 (till August, 02). Also in the year 2002-2003 (upto Sept'2002) 7.40 lakh tasar

basic seed has been produced. 0.41 lakh oak tasar basic seed and 0.79 lakh muga basic seed have also been produced and supplied to State Departments by CSB, for further multiplication upto June, 02. The muga and eri SSPCs have produced 0.32 lakh & 0.02 lakh commercial seeds respectively during the year 2002-03 (Upto June, 2002).

Training

The CSB organizes a number of training programmes at its Research and Training Institutes. The total number of persons trained during 2001-02 and 2002-03 (upto Sept' 2002) is detailed below :

Sl. No.	Training Courses	2001-02		2002-03(April-Sept.2002)			
		No. of courses conducted	No. Trained	Category of Trainees	No. of courses	No. Trained	Category of Trainees
1	Structured Courses	2	23	DOS/NGO	2	24	DOS/NGO
2	Capsule Courses	28	517	CSB/DOS/NGO	17	360	CSB/DOS/NGO
3	Ad hoc Courses	-	949	Students/Staff/Entrepreneurs	-	543	Students/Staff/Entrepreneurs
4.	Summer School Training Programme	3	71	Researchers/professors from State/CSB & universities	2	31	Researchers / Professor

Development Schemes and Programmes

Development Schemes & Programmes

supported by the CSB include those which are fully funded by the CSB, those which are fully funded by the Center, those financed by Centre and State both, and

those which are externally assisted. Progress during the year in the main schemes is briefly given below:

Catalytic Development Scheme

Thirty-six catalytic developmental schemes have been implemented by the CSB during IX plan period. These were targetted to motivate State efforts towards productivity, quality and market support. These schemes have received good response from all the States and the implementation has been very successful during IX plan. A sum of Rs. 47.56 crores has been spent/ released towards implementation of CDP during IX plan.

The United Nation's Development Programme (UNDP)

The UNDP in collaboration with Govt. of India has initiated a Sub-programme on development of Non-mulberry silk – tasar, muga and eri in Andhra Pradesh, Assam, Bihar, Jharkhand, Chhatisgarh, Orissa, Meghalaya, Nagaland, Chhatisgarh, Uttranchal and West Bengal under Fibres and Handicrafts Programme (FHAP) of Country Co-operation Frame Work – 1 (CCF-1) with a total out lay of Rs.4462.54 lakh, of which Govt. of India shares is Rs. 745.58 lakh and UNDP share is

Rs.1238.26 and beneficiary contribution amounts Rs. 2320.32 lakhs over a period of 4 years i.e. 1999-2000 to 2002-03.

The Central Silk Board is implementing the Sub-programme which aims at increasing quality egg production and supplying it to the private sector, imparting necessary training and skill up-gradation to the farmers particularly women in good management practices, and provides technological support in pre-cocoon and post cocoon processes including

reeling, spinning and processing of silk through pilot initiatives, as well as provide replicable models of entrepreneurship. Design upgradation, marketing assistance and Human Resource Development (HRD) are also built in the sub-programme structure. The targeted beneficiaries largely belonging to weaker sections of the society have been

grouped into co-operatives, women groups, self help groups etc. involving NGOs. Nearly, 12500 beneficiaries are proposed to be covered with an estimated direct employment generation of 3.6 lakh man years. The expected production of tasar raw silk is 46 M.T., tasar spun silk 21 M.T, muga raw silk 16 M.T., muga spun silk 13 tonnes, eri spun silk 293 M.T and eri pupae 2232 M.T. through this sub-programme.





Japan International Cooperative Agency (JICA) Assisted Bivoltine Project

The first phase of JICA assisted Bivoltine Sericulture Technology Development Project (BSTD) was implemented from 1991 to 1997. During this phase, JICA has made available 12 loan-term experts, 28 short term experts and trained 28 counterparts, apart from providing equipment valued about 321 million Japanese Yen. With the implementation of this project, a comprehensive practical Bivoltine Sericulture Technology suitable to Indian conditions has been developed.

Subsequently CSB with the technical assistance from JICA has implemented the Project for Promotion of Popularising the Practical Bivoltine Sericulture Technology (PPPBST) with active participation of State of Karnataka from 1st April, 1997 for a period of 5 years and subsequently extended to the States of Tamil Nadu & Andhra Pradesh. The PPPBST Project activities entailed verification and demonstration of Bivoltine technologies developed in the first phase for the project with selected farmers and training of Indian sericulture technologists. JICA has provided the services of 1 Term Leader, 1 Coordinator, 9 Long Term experts, 22 Short Term experts and accepted 34 Indian scientists for training under the counterpart training component. In the year 1997-98 two bivoltine technology verification trials; in 1998-99, three trials; in 1999-2000, three trials; in 2000-01 four trials and in 2001-02, five bivoltine technology verification trials with identified farmers were conducted.

The performance of these Bivoltine races has been good and the average yield is over 60-80Kg/100Dfls, a renditta of 5.5 to 6 Kgs and a high quality 2A-4A grade raw silk has been obtained consistently.

Encouraged with the results of the project, third phase of the Project on "Strengthening of Extension System for Bivoltine Sericulture" has commenced from August 2002 for a period of five years and preliminary selection of institutions involved in the project is in progress.

SERI – 2000

Under an agreement entered into with the Swiss Agency for Development and Cooperation (SDC), SERI-2000 programme between 1997-2004 at an outlay of Rs. 12.5 million Swiss Francs is being implemented. The programme covers projects both in public and private sector in Karnataka, Andhra Pradesh, Tamil Nadu and West Bengal. The Govt. of India through the participating institutions provides facilities, personnel and services as per the requirement of the programme. The aim is to generate viable enterprises, employment and sustainable income, primarily for the weaker sections of the population, including women, in rural and semi-urban areas.

As on March, 2002, 57 project proposals under private sector at an outlay of Rs.1314.94 lakh have been approved. Under public sector, 43 projects at an outlay of Rs. 1409.09 lakh have been approved.

Chhatisgarh Sericulture Project

The project earlier with Madhya Pradesh is being implemented by DOS, Chattisgarh in



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collaboration with Japanese Bank for International Cooperation (JBIC) and Govt. of India. The project cost is Rs. 117.10 crore for first phase and Rs. 631.70 crores for the second phase. First phase is for a period of 7 years and second phase 5 years. Its objective is to raise 4000 ha of tasar plantation covering 4000 beneficiaries; achieve production of 75 MT of raw silk and 22.5 MT of Spun Silk Yarn annually from 4th year; and give employment for 10,000 persons.

Manipur Sericulture Project

This project is being implemented by DOS, Manipur in collaboration with JBIC and Government of India. The outlay is Rs. 134.52 crores for the first phase and Rs. 356.09 crores for second phase to be implemented over a period of 7 years for first phase and 5 years for the second phase. The project commenced from 28.7.98. The objectives are raising of 1020 ha of mulberry plantation covering 3000 beneficiaries; achieve production of 60 MT of raw silk annually from 4th year; and provision of employment for 7000 persons.

The Detailed Overall Development Plan (DODP) of the Project is under consideration of the State Government.

Tribal Sub-Plan

Sericulture being an agro-based industry plays an important role in the rural economy of the country. The major programmes being implanted by CSB are towards Research and Development and basic seed

supply. Programme for specific target groups are implemented by the States.

Budget

For the year 2002-03, a provision of Rs. 87.50 crores under Plan and Rs. 55.11 crore under non-plan have been made for CSB.

INDIAN SILK EXPORT PROMOTION COUNCIL

The Indian Silk Export Promotion Council (ISEPC), Mumbai continues to undertake activities relating to promotion of exports of natural silk goods from India and to act as the registering authority for silk exporters. The Council produces and disseminates information to its members about market developments in the world, changes in the trade policies etc. through its weekly bulletin known as the "Silk Net". The silk sample catalogues containing sample swatches of the full range of silks available in India brought out by the Council are available to potential buyer, importing textile agents and Indian Missions abroad. The Council participated in Heimtextil Fair, Germany, (Jan. 9-13, 2002) and TIP 10 Fair, Brussels (September 6-9, 2002)

To enable exporters of silk goods access to quality silk at international prices, the Government has allowed silk exporters the facility to import raw material requirements on duty free basis under the Advance Licensing Scheme (ALS). In addition, the import of silk is allowed under Open General License (OGL).