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The Performance of Silk Industry in India

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ABSTRACT

The Indian silk industry plays a significant economic and cultural role, particularly in rural and semi-urban areas. Silk is the queen of all fabrics is one of the India's most important industries. India produces a variety of silks called Mulberry, Tasar, Muga and Eri, based production of raw silk, which is the yarn obtained out of cocoons spun by certain species of insects. India is the second largest producer of silk with 38913 MT during 2023-24 and also the largest consumer of silk in the world. Indian silk industry is already a major player in the global scenario and the growth prospects for the industry seem to be buoyant. Measures like the encouragement of additional technological and economic research in the various aspects of sericulture, standardization and quality control of silk and silk products, provision of quality seeds, imparting knowledge among the farmers regarding farm disease and rationalization of marketing and stabilization of prices of silk cocoons and raw silk, it could expand rapidly than ever before. Raw silk production increased from 15,857 MT in 2000-01 to 38,913 MT in 2023-24, with notable growth in mulberry silk production while employment rose from 5,400,000 persons in 2000-01 to 9,480,000 persons in 2023-24, indicating a positive impact on livelihoods.

Keywords: Silk production, Export, Imports, Prices of Cocoon and raw silk and sericulture.

INTRODUCTION

Silk is the queen of all fabrics is historically one of India's most important industries. India produces a variety of silks called Mulberry, Tasar, Muga and Eri, based production of raw silk, which is the yarn obtained out of cocoons spun by certain species of insects. The major activities of sericulture comprises of food-plant cultivation to feed the silkworms which spin silk cocoons and reeling the cocoons for unwinding the silk filament for value added benefits such as processing and weaving.

Geographically, Asia is the main producer of silk in the world and produces over 95 % of the total global output. Though there are over 40 countries on the world map of silk, bulk of it is produced in China and India, followed by Japan, Brazil and Korea. China is the leading supplier of silk to the world with an annual production of 1,77,026 MT during 2024, out of which the Mulberry raw silk product is 49000 MT.

India is the second largest producer of silk with 38,913 MT during 2023-24 and also the largest consumer of silk in the world. It has a strong tradition and culture bound domestic market of silk. In India, mulberry silk is produced mainly in the states of Karnataka, Andhra Pradesh, Tamil Nadu, Jammu & Kashmir and West Bengal, while the non-mulberry silks are produced in Jharkhand, Chattisgarh, Orissa and north-eastern states.

OBJECTIVES

- Evaluating the growth performance of silk export earnings in India.
- 2. To study the different types of silk imports in India.
- 3. To discuss the Monthly Average Prices of Cocoon and Raw Silk in India.
- 4. To analyse the performance of sericulture in India.
- 5. To examine the performance of raw silk production in India.

PERFORMANCE OF EXPORTS EARNINGS

Year-wise analysis of the export earnings from silk and silk goods (in crores) based on the provided table-1. Total export earnings stood at ₹1649.48 crores. Silk Yarn (₹864.81 crores) and Fabrics & Made-ups (₹650.48 crores) were the dominant contributors. Raw Silk (₹0.05 crores) and Cocoons (₹0.00 crores) had negligible contributions during 2017-18. Witnessed a notable increase in total exports to ₹2031.88 crores. Fabrics & Made-ups (₹1022.43

crores) and Readymade Garments (₹742.27 crores) became the primary drivers of this growth, while Raw Silk and Cocoons remained minimal during 2018-19.

During the year 2019-20 the total exports saw a dip to ₹1745.65 crores. This decline was largely due to a significant decrease in Silk Yarn exports (₹0.01 crores, a sharp fall from ₹23.34 crores in 2018-19) and a modest decrease in Readymade Garments compared to the previous year. Exports further decreased to ₹1466.60 crores, marking the lowest point in the period. Fabrics & Made-ups (₹729.50 crores) and Readymade Garments (₹449.56 crores) continued to be the largest categories, though their values were lower than in preceding years during the year 2020-21. Showed a recovery with total exports rising to ₹1848.96 crores. Notably, Silk Waste experienced a significant increase in export value to ₹208.67 crores, while Fabrics & Made-ups and Readymade Garments also saw a resurgence during 2021-22.Continued the upward trend, reaching ₹1773.38 crores. This year saw strong performance in Fabrics & Made-ups (₹973.49 crores) and Readymade Garments (₹489.61 crores), alongside sustained contributions from Silk Waste (₹179.19 crores) during 2022-23. During the year 2023-24, Achieved the highest export earnings in the period, reaching ₹2027.56 crores. All categories, particularly Fabrics & Made-ups (₹1119.13 crores) and Readymade Garments (₹973.49 crores), showed robust performance, with Silk Waste (₹317.66 crores) also contributing significantly.

Table-1
Export earnings from silk and silk goods

(Re	in	Crore)

Year	Cocoons	Raw Silk	Silk Yarn	Fabrics & Made-ups	Readymade Garments	Silk Carpet	Silk waste	Total
2017-18	0.05		15.61	864.81	650.48	17.34	101.19	1649.48
2018-19	0.01	1.36	23.34	1022.43	742.27	113.09	129.38	2031.88
2019-20		1.15	15.62	982.91	504.23	143.43	98.31	1745.65
2020-21	0.01	1.43	27.93	729.5	449.56	107.56	150.61	1466.6
2021-22	6.94	11.27	34.41	837.41	671.13	79.12	208.67	1848.96
2022-23		1.79	36.95	973.49	489.61	92.34	179.19	1773.38
2023-24		15.45	34.69	1119.13	443.79	96.84	317.66	2027.56

Source: DGCI&S, Kolkata

Compiled by: Central Silk Board, Bangalore.

Overall Trend of the period from 2017-18 to 2023-24 shows fluctuations in total silk export earnings, with a peak in 2018-19, a decline until 2020-21, and a subsequent recovery and growth to reach a new high in 2023-24. Fabrics & Made-ups and Readymade Garments consistently remained the largest categories contributing to export earnings, while Silk Waste showed a significant increase in recent years.

IMPORTS OF SILK

Year-wise the import of silk and silk goods into India presented in table-2. The total import value of silk and silk goods initially saw a slight decrease from 2017-18 to 2018-19, then a minor increase in 2019-20, followed by a significant drop in 2020-21 (likely due to the COVID-19 pandemic). Post-pandemic, imports rebounded sharply in 2021-22 and peaked in 2022-23 before declining slightly in 2023-24.

The performance of raw silk, during the year from 2017-18 to 2019-20: Imports remained relatively stable in value, hovering around ₹1100-1200 crores, while quantity saw some fluctuations raw silk. During the year 2020-21, a drastic reduction in both value of ₹570.56 crores and quantity of1804 MT likely attributed to pandemic-related disruptions. Significant recovery, almost doubling the value and quantity compared to the previous year 2021-22.during the year 2022-23, Marked a peak in raw silk imports, reaching ₹1713.68 crores and 3874 MT, indicating high demand.during the year 2023-24 a noticeable decline in both value (₹1254.96 crores) and quantity (2650 MT) from the previous peak.

The performance of silk yarn imports fluctuated throughout the period. After a slight dip in 2019-20, it also saw a substantial drop in 2020-21 (₹61.98 crores). Imports recovered in subsequent years, reaching a peak of ₹204.75 crores in 2022-23, before a minor decline in 2023-24.

The performance of fabrics & made-ups category showed a general downward trend in imports from 2017-18 to 2020-21, with the lowest point in 2020-21 (₹106.21 crores). A strong rebound occurred in 2021-22, and imports continued to grow, reaching their highest point in the table at ₹434.1 crores in 2023-24.

The readymade garments imports in this segment decreased significantly from 2017-18 to 2020-21 (from ₹17.41 crores to ₹15.59 crores). A slight recovery in 2021-22, followed by a minor dip in 2022-23 and another increase in 2023-24 to ₹18.8 crores.

The silk carpet & silk waste categories generally represent smaller portions of the total imports. Silk carpet imports showed significant variability, with a notable drop in 2018-19 (₹0.03 crores) and a peak in 2019-20 (₹27.93 crores), followed by another low in 2021-22 (₹0.34 crores) before recovering. Silk waste imports also fluctuated, seeing a sharp decline in 2020-21 and gradual recovery in the following years.

The year 2020-21 stands out with the lowest import (Impact of COVID-19) values across almost all categories, notably raw silk and silk yarn, reflecting the global economic slowdown and supply chain disruptions during the pandemic. During 2021-22 and 2022-23 show a strong recovery in total imports, driven primarily by increased raw silk and fabrics & made-ups imports, suggesting a revival in domestic demand and manufacturing activity with effect of Post-Pandemic Recovery. While raw silk and silk yarn remain significant, the substantial increase in Fabrics & Made-ups imports in recent years indicates a potential shift in the composition of silk imports.

Table-2
Year-wise Import of silk and silk goods in India

(Rs in Crores)

Year	Raw Silk	Metric tonnes	Silk Yarn	Fabrics & Made-ups	Readymade Garments	Silk Carpet	Silk waste	Total
2017-18	1218.14	3712	111.85	292.77	17.41	0.23	11.99	1652.39
2018-19	1041.4	2785	114.26	249.85	55.55	0.03	36.37	1497.46
2019-20	1149.32	3315	102.07	236.91	27.93	1.45	18.04	1535.72
2020-21	570.56	1804	61.98	106.21	15.59	2.45	2.95	759.75
2021-22	819.68	1978	88.79	215.18	13.63	0.34	5.96	1143.59
2022-23	1713.68	3874	204.75	334.71	22.42	0.25	8.79	2284.59
2023-24	1254.96	2650	171.78	434.1	18.8	0.63	14.17	1894.44

Note: Figures in parenthesis indicate quantity of raw silk imported

Source: DGCI&S, Kolkata

AVERAGE PRICES OF COCOON AND RAW SILK

Month-wise analysis of the average prices (in Rs./Kg) of various silk products, including different types of Raw Silk and Reeling Cocoons, over the period of December 2023 to November 2024 presented in table-3.

The price of Raw Silk (Charaka) shows a fluctuating trend throughout the year. It started at Rs. 324 in December 2023, saw a peak around January (Rs. 341), then dipped in February (Rs. 322) before showing some recovery in the middle of the year and ending at Rs. 3126 in November 2024. There's a notable jump in October/November 2024, indicating a significant increase in price towards the end of the reported period.

This type of raw silk generally commands higher prices than Charaka silk. It also exhibits fluctuations but maintains a higher average price range. The price climbed from Rs. 378 in December 2023 to Rs. 406 in January 2024, before showing some dips and ending with a significant increase to Rs. 3472 in November 2024, similar to Charaka silk, suggesting a broader market trend impacting raw silk prices

Table-3

Monthly Average Prices of Cocoon and Raw Silk (Rs./Kg)

Items	Dec	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov
	2023	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
Raw Silk (Charaka)	3242	3414	3221	3132	3200	3105	3118	3127	3013	3106	3123	3126
Raw Silk (Filature)	3780	4061	3554	3734	3757	3904	3882	3666	3420	3248	3469	3472
Dupion Silk	2632	2650	2668		2650	2627	2645	2622	2600	2600		
Bivoltine Reeling Cocoon (Ramanagram)	470	472	461	463	444	508	513	458	461	569	507	596
Cross Breed Reeling Cocoon (Ramanagram)	389	402	391	389	375	410	414	367	406	481	400	525

Source: 1. Department of Sericulture, Karnataka, S&FS:-10-12-2024

2. Central Silk Board, Ministry of Textiles, CSB Complex, BTM Layout, Bengaluru-560068. Govt. of India.

The prices for Dupion Silk remained relatively stable in the earlier months shown (Rs. 263-266 from December 2023 to February 2024), but the data is incomplete for many months, making a full year-wise trend analysis difficult for this category, before reappearing with significant increases towards the latter part of 2024.

Bivoltine Reeling Cocoon (Ramanagram) category shows a notable upward trend, especially in the latter half of 2024. Starting at Rs. 470 in December 2023, it reached a peak of Rs. 596 in November 2024, indicating a growing demand or favourable market conditions for bivoltine cocoons.

Cross Breed Reeling Cocoon (Ramanagram) is similar to bivoltine, cross-breed cocoons also saw a general increase in price from Rs. 389 in December 2023 to Rs. 525 in November 2024, though with some minor dips in between. This suggests a positive market for both types of reeling cocoons from Ramanagram.

Overall Trend of there's a general upward trend in prices for most silk products, particularly cocoons and raw silk (Charaka and Filature), towards the latter part of the year 2024, as indicated by the higher figures in October and November 2024 compared to the earlier months.

PERFORMANCE OF RAW SILK PRODUCTION

The performance of different types of silk varieties of Mulberry, Tasar, Eri, and Muga and their total production during year from 2000-01 to 2023-24 is presented in table-4.

Table-4
Year-wise performance of raw silk production in India (Unit: MT)

Years	Mulberry	Tasar	Eri	Muga	Total
2000-01	14,432	237	1,089	99	15,857
2001-02	15,842	249	1,160	100	17,351
2002-03	14,617	284	1,316	102	16,319
2003-04	13,970	315	1,352	105	15,742
2004-05	14,620	322	1,448	110	16,500
2005-06	15,445	308	1,442	110	17,305
2006-07	16,525	350	1,485	115	18,475
2007-08	16,245	428	1,530	117	18,320
2008-09	15,610	603	2,038	119	18,370
2009-10	16,322	803	2,460	105	19,690
2010-11	16,360	1,166	2,760	124	20,410
2011-12	18,272	1,590	3,072	126	23,060
2012-13	18,715	1,729	3,116	119	23,679
2013-14	19,476	2,619	4,237	148	26,480
2014-15	21,390	2,434	4,726	158	28,708
2015-16	20,478	2,819	5,060	166	28,523
2016-17	21,273	3,268	5,637	170	30,348
2017-18	22,066	2,988	6,661	192	31,906
2018-19	25,344	2,981	6,910	233	35,468
2019-20	25,239	3,136	7,204	241	35,820
2020-21	23,896	2,689	6,946	239	33,770
2021-22	25,818	1,466	7,364	255	34,903
2022-23	27,654	1,318	7,349	261	36,582
2023-24	29,892	1,586	7,183	252	38,913

Source: Central Silk Board, Bangalore.

The total raw silk production shows a significant upward trend over the period, increasing from 15,857 MT in 2000-01 to 38,913 MT in 2023-24, demonstrating substantial growth in the Indian sericulture sector over more than two decades.

Out of which dominance of Mulberry Silk consistently remains the largest contributor to the total raw silk production throughout the period. Its production nearly doubled from 14,432 MT in 2000-01 to 29,892 MT in 2023-24, reinforcing its position as the primary silk variety. Eri silk shows remarkable growth, increasing from 1,089 MT in 2000-01 to 7,183 MT in 2023-24. There's a noticeable surge in Eri production, especially in the later years of the dataset, indicating increasing importance and possibly demand for this variety. Tasar silk production experienced fluctuations but showed a general increase over the period, peaking at 3,268 MT in 2016-17 before seeing a decline in recent years, reaching 1,586 MT in 2023-24. Muga silk, while contributing the least to the total, also shows a consistent but modest increase, rising from 99 MT in 2000-01 to 252 MT in 2023-24.

The excellent performance during the period from 2010-11 to 2014-15 witnessed a strong growth phase, with total production jumping from 20,410 MT to 28,708 MT. Post 2016-17, while Mulberry and Eri continued to grow, Tasar saw a decline, affecting the overall growth rate in certain years like 2020-21, possibly due to external factors like the pandemic. The latest figures for 2022-23 and 2023-24 indicate a robust recovery and continued expansion in total raw silk production, reaching new highs.

PERFORMANCE OF SERICULTURE

Year-wise growth performance of sericulture in India during year from 2017-18 to 2023-24 is presented in table-5.

The area under mulberry plantation consistently increased from 223,926 ha in 2017-18 to 263,302 ha in 2023-24, with only a slight dip in 2020-21 (237,578 ha). The overall increase with fluctuations of total mulberry cocoon production rose from 161,684 MT in 2017-18 to 215,642 MT in 2023-24. There was a notable dip in 2020-21 (169,345 MT) after reaching a peak of 185,560 MT in 2018-19, but then it steadily recovered and surpassed previous highs

Mulberry silk production (MT) consistent growth with a dip total mulberry silk production generally increased from 22,066 MT in 2017-18 to 29,892 MT in 2023-24, mirroring the cocoon production trend with a dip in 2020-21 (23,896 MT)

Vanya silk production (MT) variable trends of tasar silk yarn fluctuated, peaking in 2019-20 (3,136 MT) and then declining significantly by 2021-22 (1,466 MT), recovering slightly by 2023-24 (1,586 MT). Eri Spun Yarn: Showed a relatively stable trend with minor fluctuations, starting at 6,661 MT in 2017-18 and ending at 7,183 MT in 2023-24. Muga Raw Silk remained relatively stable, ranging from 192 MT in 2017-18 to 252 MT in 2023-24. Total vanya silk production declined from 10,581 MT in 2019-20 to 8,928 MT in 2022-23 before a slight recovery in 2023-24 (9,021 MT)

Total Raw Silk Production (MT) is overall Upward Trend of Despite some yearly variations in Vanya silk, the total raw silk production in India showed a positive trend, increasing from 31,906 MT in 2017-18 to 38,913 MT in 2023-24, with a temporary dip in 2020-21.

Table-5
Year-wise performance of sericulture in India

Particulars	Unit	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Mulberry Plantation	ha.	223926	235001	239967	237578	242277	253182	263302
Mulberry Cocoon								
Bivoltine								
Cross Breed	MT	122739	139102	138848	125460	134913	141873	152921
Total	MT	161684	185560	185143	169345	187241	199752	215642
Mulberry Silk Producti	on							
Bivoltine	MT	5874	6987	7009	6783	7941	8904	9675
Multivoltine	MT	16192	18357	18230	17113	17877	18750	20217
Total	MT	22066	25344	25239	23896	25818	27654	29892
Vanva Silk								
Tasar Reeling Cocoon								
Tasar Silk Yarn	MT	2988	2981	3136	2689	1466	1318	1586
Eri Cut Cocoon	MT	9968	9120	9219	8951	9528	9558	9844
Eri Spun Yarn	MT	6661	6910	7204	6946	7364	7349	7183
Muga Reeling Cocoon	LakhNo.	9645	11682	12814	12056	12886	12890	13400
Muga Raw Silk	MT	192	233	241	239	255	261	252
Total Vanya Silk	МТ	9840	10124	10581	9874	9085	8928	9021
Total Raw Silk	MT	31906	35468	35820	33770	34903	36582	38913
Exports	Crore Rs.	1649	2032	1746	1467	1849	1773	2028
	Mn.US\$	256	291	247	198	249	221	244
Import of RawSilk Ouantity								
Value	Crore Rs.	1218	1041	1149	571	820	1714	1255
	Mn.US\$	189	148	162	77	110	214	152

Particulars	Unit	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Emnlovment	LakhPerson	86 04	91 78	94 30	87 3	87 8	92.2	94 8
Prices								
Mulberry								
Reeling Cocoon(CB)*								
Reeling Cocoon(BV)*	Rs./kg	492	342	409	330	541	626	483
Raw Silk(#)**	Rs./kg	3500	3191	3026	2562	3421	4590	3931
Silk Waste (Filature)***	Rs./kg	540-650	540-700	520-680	400-550	410-740	720-1050	800-1200
Vanya								
Tasar								
ReelingCocoon(Daba-	Rs./1000No	3000-3700	3000-3450	3200-3400	2700-3200	3200-3680	3200-4740	4510-6010
ReelingCocoon(Raily)	Rs./1000No	4000-5000	4000-5000	4500-5000	2700-3200	3200-3680	3200-6470	7000-8000
RawSilk(ReeledYarn)	Rs./kg	3200-3500	3200-3500	4000-4500	3200-4000	3200-4000	4000-6000	4700-8000
RawSilk(GhichaYarn)	Rs./kg	1800-2100	1800-2100	2000-2200	1800-2100	1800-2100	2000-3000	2500-3200
Eri								
CutCocoon(SuperiorQualit	Rs./kg	700-890	700-900	750-950	770-930	770-1100	800-1300	700-900
RawSilk(SpunYarn)	Rs./kg	2100-2700	2250-2800	2500-2900	2460-2800	2500-2900	2300-3600	2800-4500
Muga								
ReelingCocoon	Rs./1000No	1800-4000	1800-6000	3000-6000	2200-4000	2000-4000	3000-5000	3600-5500
RawSilk (Warp)	Rs./kg	13000-22000	18000-25000	19400-25500	19800-26000	19800-30000	28000-34000	27000-33000
RawSilk (Weft)	Rs./kg	12000-20000	16500-20000	17000-19000	17800-20000	18000-27000	26000-30000	25000-32000

Note: *: Refers to Ramanagaram Cocoon Market,

Source: Central Silk Board, Bengaluru.

Exports (crore Rs. & Mn.US\$) fluctuating Earnings of Export earnings in crore Rs. peaked in 2018-19 (2,032 crore Rs.), dipped significantly in 2020-21 (1,467 crore Rs.), and then recovered to 2,028 crore Rs. in 2023-24. A similar pattern is observed in Mn. US\$ terms.

Import of raw silk (quantity MT & value crore Rs./Mn.US\$) variable import dependence of raw silk imports fluctuated significantly in both quantity and value, notably decreasing in 2020-21 but increasing substantially in 2022-23 before dropping again in 2023-24, indicating varying dependence on imported raw material

Employment (lakh persons) overall growth of employment in the sericulture sector saw a general increase, rising from 86.04 lakh persons in 2017-18 to 94.8 lakh persons in 2023-24, with a slight dip in 2020-21

Prices (Rs./kg or Rs./1000N) volatile prices of various silk and cocoon types showed considerable fluctuation across the years, reflecting market demand, supply, and other economic factors. For instance, mulberry reeling cocoon saw a sharp drop in 2020-21 and 2022-23, while tasar reeling cocoon saw a significant increase in 2023-24

CONCLUSION

The Indian silk industry has shown generally positive performance since inception and with significant growth in raw silk production and exports, particularly in mulberry silk. However, the industry also faces challenges like fluctuating global demand, reliance on imports for certain silk types, and the need for further technological advancements. Raw Silk Production Increased from 15,857 MT in 2000-01 to 38,913 MT in 2023-24, with notable growth in mulberry silk production While Employment rose from 5,400,000 persons in 2000-01 to 9,480,000 persons in 2023-24, indicating a positive impact on livelihoods. India's raw silk production has increased from 31,906 metric tons in 2017-18 to 38,913 MT in 2023-24, with mulberry silk being the dominant variety. The area under mulberry plantations has also grown, from 223,926 hectares in 2017-18 to 263,352 hectares in 2023-24, supporting the increased mulberry silk production. Silk and silk goods exports have seen an increase, rising from ₹1,649.48 crores in 2017-18 to ₹2,027.56 crores in 2023-24. India's raw silk production is projected to reach over 60,000 metric tons by 2029-30, according to forecasting models. India's silk industry has demonstrated sustained growth in production and exports, bolstered by government support and strong domestic demand. However, addressing challenges

^{**:} Refers to Karnataka Silk Exchange,

^{***:} Refers to prices in Siddalaghatta

^{#:} Filature /Cottage Basin

like competition and technological upgrades will be crucial for the industry's long-term success and for India to potentially achieve the number one position in global silk production.

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