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Growth of Indian Silk Industry During The Five Year Plan Period: A Trend Review

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Abstract : Sericulture industry is an important rural-based handloom industry in India and its plays a valuable role to develop the rural economy. In the study, attempts have been made to highlights the dynamic of production of raw silk in India during the plans period. We can see the growth of silk industry supported by eco-climatic condition and very low cost labour resources with rich grain and food plants in Bio-diversity. The tendency has also been reflected in AGR of production of raw silk during the plan period. During this period the total production of raw silk has increased significantly, especially among the four types of silk, the production of mulberry silk has increased significantly. In this article we have tried to give a picture of the trend of raw production of these four types of silk during this plan period.

Keywords: Skil, sericulture, production, trends, five year plan.

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1. Introduction

Silk is famous around the whole world. Silk is most popular and fashionable textile not only domestic market but also in the world market. Sericulture means that cultivation of silk through rearing of silk worms. The technique of sericulture involves planting of plants on which the silk worms the silk worms grows, production of cocoon from silk worm, cocoon collection, reeling and spinning of cocoon for production of silk yarn. Currently, India and China produce the largest amount of silk, they together

produce more than 90% of world'stotal production.At present after China, India rank second in raw silk production and produce only 18% of the world's total production. Silk handloom industry is one of the chief agro based industry in our country. Silk weaving is perhaps as old as our civilization in our country along with culture and tradition (A.C Rangappa). India is only country the world who produce all the four types of silk namely mulberry, Tasar, Eri and Muga. Among the four types of silk, Mulberry silk is the largest produced in India. The contribution of mulberry silk production to the total raw silk production of the country is about 80 percent (Siddappaji. D, et.all). The states in India which produce the largest amount of mulberry silk are West Bengal, Jammu and Kashmir, Karnataka, Andhra Pradesh and Tamil Nadu. These five states jointly produce about 96 percent of mulberry silk. Tasar silk known as wild silk and it is mainly practices in the forest areas and many tribal communities are engaged to tasar culture. Tasar silk producing states are Chhattisgarh, Orissa, Jharkhand, Maharashtra, Andhra Pradesh, West Bengal. Eri silk produces in West Bengal, Manipur, Assam, Meghalaya, Bihar and Nagaland. Muga silk is produces basically in Assam but other some states are also involves.

2. Significant of this Study

Sericulture activities are the potential rural based industry of agriculture and very effectiveness to creating new job opportunities for who search for job and providing supplemental income to the sericulture farmers. Currently, this industry has manifesting as a prime rural industry in the Indian economy. In the case of foreign exchange, the importance of this industry is nothing less than that of other industries. The export revenue from this industry was 1649 crore in the financial year 2017-18, and according to this year, there are 86 lakh person employed in this industry. This paper attempts to show how much the silk industry flourished and developed during the whole plan-period imagination, and the Government of India's efforts to development of sericulture industry.

3. The Methodology of research

The entire work of this research is done with secondary data and those data are collected by various published sources like journals, thesis, books, websites and annual reports etc. The study period covers the whole plan period from. In this study, attempts have been made to highlight the dynamics of raw silk production in India during the five year plan period, including the tendency for silk production. A comparative introduction has been made between different types of silk in terms of their production tendency and activity. In order to examine the objectives of study data were analysed by

using- Standard Deviation (S.D),Mean, Compound Average Growth Rate (CAGR), Coefficient of variance (C.V), Skewness and Kurtosis

4. Objective

(a) To show the production of raw silk according to plan.

(b) To analyse the production trends of all four types of silk

(c) To show the production trends of raw silk in plan period.

(d) To shows the silk export earnings trends during plan period.

5. Silk production during Plan period

The first documentary report of Indian silk industry was operated by H. Maxwell Lefroy and EC. Ansorge in 1914-15. In their report they recommended an organizational support by Government for the improvement of Indian sericulture industry. After independent Indian government realizing the importance of sericulture industry for creating employment opportunities in rural areas and as a rural industry it is suitable for development of rural economy. For the improvement of the infrastructure of silk industry, the Indian government introduces types of schemes and development projects through Planning Commission and also proves funds separately to this industry for development. The growth achievement by sericulture industry during the entire planning period discuss in the following paragraph.

Physical Progress of Raw silk Production under Plan period

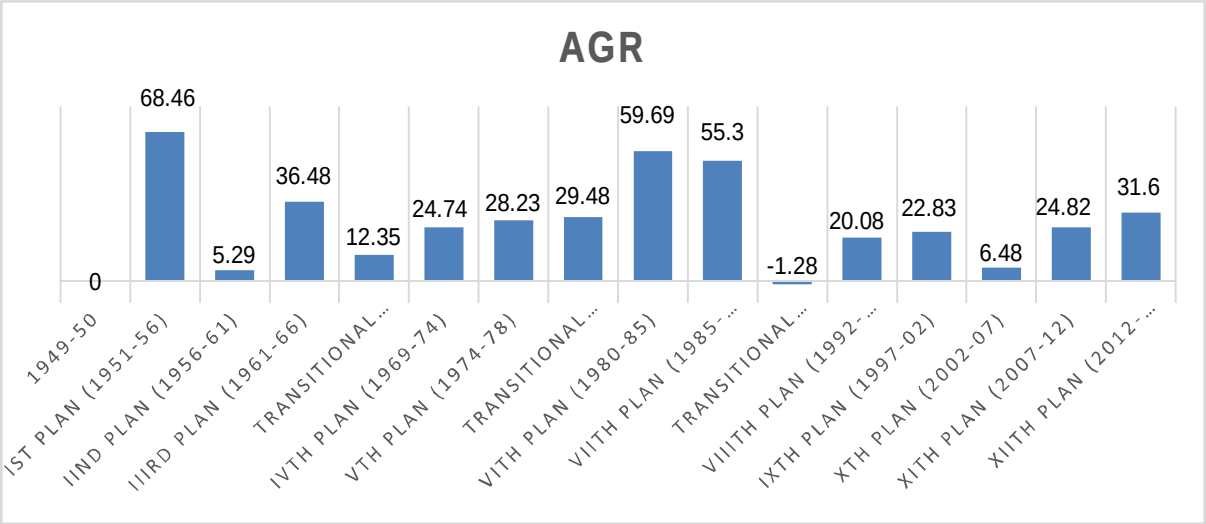
Table No.1Unit: Metric Tonnes (MT)

Year of Plan	Types of silk					AGR	Export Earnings (Crore)
	Muga	Eri	Tasar	Mulberry	Total		
1949-50	36	92	115	610	853	0	
1951-56 (First Plan)	71	127	141	1098	1437	68.46	0.52
1956-61(Second Plan)	39	110	179	1185	1513	5.29	1.52
1961-66 (Third Plan)	57	201	262	1545	2065	36.48	3.32

1966-69 (Transitional period)	69	214	256	1781	2320	12.35	6.83
1969-74 (Fourth Plan)	75	141	257	2421	2894	24.74	14.46
1974-78 (Fifth Plan)	35	56	434	3186	3711	28.23	33.06
1978-90 (Transitional period)	45	183	384	4193	4805	29.48	48.83
1980-85 (Sixth Plan)	55	279	444	6895	7673	59.69	129.05
1985-90 (Seventh Plan)	57	589	465	10805	11916	55.3	400.61
1990-92 (Transitional period)	72	704	329	10658	11763	-1.28	675.57
1992-97 (Eighth Plan)	73	864	235	12954	14126	20.08	983.03
1997-02 (Ninth Plan)	100	1160	249	15842	17351	22.83	2359.56
2002-07 (Tenth Plan)	115	1485	350	16525	18475	6.48	3338.35
2007-12 (Eleventh Plan)	126	3072	1590	18272	23060	24.82	2353.33
2012-17 (Twelfth Plan)	170	5637	3268	170	30348	31.6	2093.42

Source: Reference 1 and 6

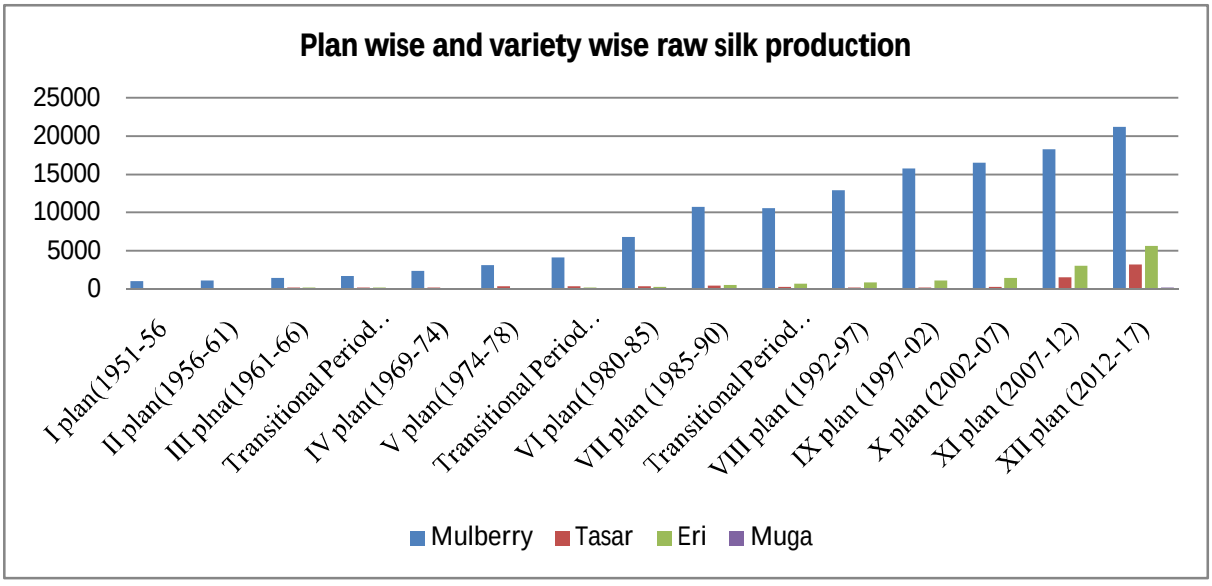
Picture 1 shows the average growth rate of total silk production during plan period



Source: Table 1

Figure 1 shows the trends of average growth rate of total silk production during the plan period.AGR of silk production at the end of the First Plan was 68.46%. and it was fall to 5.29% in the second plan period and which again increased to 36.48% in the third plan but the average growth rate of total production was further decreased during the fourth plan, the average growth rate during this plan was 24.74% and since then the AGR of silk production continued to increase and in the seventh plan, which increased to 59.69%, and then the AGR of silk production has since declined and which is decrease to 6.48% during the tenth plan. End of the eleventh plan and twelfth plan, the average growth rate of production increased again to 24.82% and 31.6%, respectively.

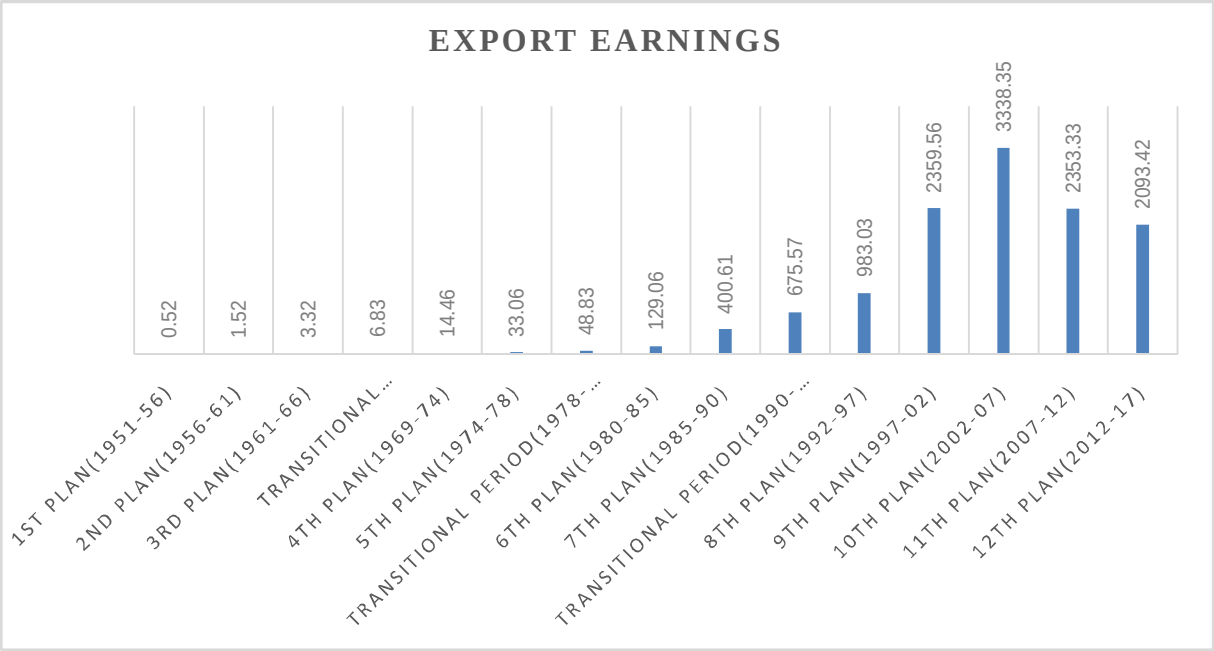
Picture 2 shows the trends of verity wise raw silk production during the five year plan period



Source: Table no. 1

The table and figure shows that the production trend of silk in India whole entire five-year plan period. Among the four varieties of silk mulberry gets first rank with 70.10% and Eri (18.57%), Tasar (10.77%) and Muga (0.56%) get second, 3rd and 4thrank respectively in production of raw silk. In the whole plan period the rate of growth of muga and mulberry silk is139.44% and 1837.43% respectively which is comparatively lower than the tasar silk (2217.73%)and eri silk (4338.58%). In the overall plan period from 1978-80 (Transitional period) to 1980-85 (VIth plan) was the best time period for mulberry silk production because in this time period the growth rate of mulberry silk was 64.44% and 56.70% respectively. A growing tendency is seen in the mulberry silk production during the whole plan period, that is 1098 MT in 1951-56 (Ist plan) increased to 10805 MT in 1985-90 (VIIth plan) and again increased to 21273 MT in 2012-17(XIIth plan) but from 1985-90 to 1990-92 in this time period mulberry silk production was decreased from 10805 MT to 10658 MT nearly about 0.14%. Almost similar types of activities are also noticed in the production Eri, Tasar and Muga silk. From first plan (1951-56) to the fourth plan (1974-78) the level of production of Eri silk is increased from 127 MT to 141 MT and Muga silk is increased from 71 MT to 75 MT respectively and during the fifth plan both silk production decreased to 56 MT and 35 MT and the level of production of Muga and Eri silk began to increase in Transitional period (1978-79 to 1979-80) from which the level of production of Muga and Eri silk in theXIIth plan (2012-13 to 2016-17) is increased to 170 MT and 5637 MT respectively. Although the level of production has increased of Tasar silk in the entire five year plan period but growth rate is not satisfactory, because in silk production till the sixth plan (1980-81 to 1948-85) tasar silk was in second place and eri silk was the third place. During this time period tasarsilk growth rate was 214.89% and growth rate of eri silk was 9.69% and after then eri silk occupies second place in Indian raw silk production from the seventh plan period and tasar silk shift to the third place. At this time period (7^{th} plan to 12^{th} plan) tasar silk growth rate was 602.80% where eri silk growth rate was 857.04%.

Picture 3 shows the trends of export earnings during Five Year Plan Period



Source: Table no.1

The above diagram shows the graph of export earnings from silk in the entire plan period (1951 to 2017). It is clear that the total export earnings from silk is increased steadily in the entire five-year plan period. End of the first-plan, the export earnings from silk was Rs.0.52 crore, which continued to increase and during the 5th plan it increased to Rs.33.06 crore and during the during the 7th and 8th plan it again increased to the Rs.400.61 crore and Rs.983.03 crores respectively. During the 9th and 10th plans the export earnings increased again to Rs.2359.56 crore and Rs.3338.35 crore respectively, which was the maximum export earnings of the whole plan period. Thereafter, in the 11th and 12th plans, the total export income from silk is reduced. During the eleventh plan the export earnings decreased to Rs.2353.33 crore and it was again reduced to Rs.2093.42 crore during the twelfth plan.

6. Consolidated table of variety wise production of silk in the Five-Year Plan period

Table:2

Statistical tools	Mulberry	Tasar	Eri	Muga	Total
Mean	8575.53	589.53	988.13	77.27	10230.47
Standard deviation (S.D)	7044.78	816.96	1510.81	36.53	8957.14
Coefficient of	82.15	138.58	152.89	47.28	87.55

variance (C.V)					
Growth rate	1837.43%	2217.73%	4338.58%	139.44%	2011.90%
CAGR	24%	25%	31%	6%	24%
Skewness	0.47	3.00	2.51	1.33	0.92
Kurtosis	-1.30	9.21	6.56	1.72	0.06

Source: Table no.1

The table 2 shows the variety wise consolidated of production of silk in the entire five-year plan period. The mean value and S.D shows that in sense of production, mulberry silk rank first, the value of mean production and S.D of mulberry silk are 8575.33 and 7044.78 respectively and followed by eri, tasar and muga.

7. Conclusion and Finding of the study

●Total silk production in India increased by about 29495 MT in the entire Five-Year Plan period. So in the entire plan year, raw silk production increased by 3457.80%.The CAGR of production of total raw silk in the entire plan period is 24%, which means, the production of silk is increased by an average of 24% during each planning period.

● The production of mulberry silk increased by 20663 MTin the entire Five-Year Plan period. So in the entire plan year, mulberry silk production increased by 3387.38%. The CAGR of production of mulberry silk in the entire plan period is 24%, which means, the production of mulberry silk is increased by an average of 24% during each planning period.

● The production of tasar silk increased by 3153 MTin the entire Five-Year Plan period. So in the entire plan year, tasar silk production increased by 2741.74%. The CAGR of production of mulberry silk in the entire plan period is 25%, which means, the production of mulberry silk is increased by an average of 25% during each planning period.

● The production of eri silk increased by 5545 MTin the entire Five-Year Plan period. So in the entire plan year, eri silk production increased by 6027.17%. The CAGR of production of mulberry silk in the entire plan period is 31%, which means, the production of mulberry silk is increased by an average of 31% during each planning period.

● The production of muga silk increased by 134 MTin the entire Five-Year Plan period. So in the entire plan year, muga silk production increased by 372.22%. The CAGR of production of mulberry

silk in the entire plan period is 6%, which means, the production of mulberry silk is increased by an average of 6% during each planning period.

Finally it is argued that the total raw silk production increased steadily throughout the plan period because the Indian government has taken up many types of schemes and projects for the improvement the structure of the sericulture industry and has provided also financial support and created a complementary infrastructure with these introduced modern technologies.

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