



## Socio-Economic Dimensions and Problems Faced by the Sericulture Farmers in Namakkal District, Tamil Nadu

*Dr. R. Govindasamy<sup>1</sup>, Dhanya Sai Das<sup>2</sup>, Janarthan P<sup>3</sup>, Pooja Vardhini S<sup>4</sup>*

<sup>1</sup>Assistant Professor, Department of Economics, Bharathiar University, Coimbatore- 46, [govindhphd@gmail.com](mailto:govindhphd@gmail.com)

<sup>2</sup>Ph. D Research Scholar, Department of Economics, Bharathiar University, Coimbatore- 46

<sup>3</sup>PG Student, Department of Economics, Bharathiar University, Coimbatore- 46

<sup>4</sup>Ph. D Research Scholar, Department of Economics, Bharathiar University, Coimbatore- 46

### ABSTRACT

Sericulture is an agro-based industry that has a significant role in promoting sustainable socio-economic development in rural areas. It requires only simple technology, short gestation period, and also assures high returns. A preliminary survey was undertaken with pretested interview schedule. Around 60 respondents belonging to sericulture farming community in Namakkal are selected as sample using random sampling method. The selected respondents were met in person and enquired the information required for the study. The data gathered was analyzed using simple frequency distribution and percentage, and also the constraints faced by the farmers were ranked using Garrett ranking method. Based on the current study, the prime constraints in mulberry and silkworm cultivation are found to be the erratic change in weather conditions and effect of co-farmers pesticide. It can be concluded that the socio-economic background of the sericulture farmers in the study area seems to be satisfactory and also, the district authorities should adopt necessary steps to reduce harmful effects of sudden climatic change and unwanted usage of pesticides by the ignorant farmers.

**Key words:** Sericulture, Silkworms, Mulberry Cultivation, Socio-Economic, Constraints.

### 1. INTRODUCTION

Sericulture, the art and science of cultivating silk-producing insects and utilizing their silk for various purposes, stands as one of the oldest and mostly culturally significant human endeavors. This practice is deeply intertwined with the history of civilizations, trade, and technological evolution. From the ancient silk routes connecting east and west to the modern advancements in genetics and biotechnology, sericulture has demonstrated its resilience and adaptability over millennia.

Sericulture is an Agro-based industry that has a significant role in promoting sustainable socio-economic development in rural areas (Dewangan et al., 2011). Sericulture requires low investment, simple technology, short gestation period, and high returns (Sharma and Kapoor, 2020). It also integrates well with other agricultural activities, such as crop rotation, intercropping, agroforestry, and animal husbandry. Sericulture provides direct and indirect employment to about 60-100 million people worldwide, especially women, children, elderly, youth, and marginalized groups. Sericulture also contributes to environmental conservation by enhancing soil fertility, biodiversity, carbon sequestration, and water management. Moreover, sericulture preserves the cultural heritage and identity of many communities that have been practicing it for generations.

Sericulture provides direct and indirect employment to approximately 8.7 million people in India, of which 80 per cent are rural poor. Sericulture requires low investment, simple technology, short gestation period, and high returns. It also integrates well with other agricultural activities, such as crop rotation, intercropping, agro forestry, and animal husbandry. Sericulture contributes to environmental conservation by enhancing soil fertility, biodiversity, carbon sequestration, and water management. Moreover, sericulture preserves the cultural heritage and identity of many communities that have been practicing it for generations. In Namakkal district of Tamil Nadu, sericulture emerging as one of major source of livelihood for its farmers population. On the light of the above said statements, some objectives have been framed as follows;

- ✚ To study the socio-economic conditions of sericulture farmers in the Namakkal district.
- ✚ To examine the constraints faced by the sericulture farmers in the study area.

### II. REVIEW OF LITERATURE

Raju et al., (2019) carried over research based on the socio-economic status of sericulture farmers under rainfed condition in Chamarajanagar district. Majority of the farmers belong to old age group (above 55 years) (45.83 per cent) and very few farmers belong to young age (10 per cent) and illiterate

group (51.6 per cent) and very few farmers had college level education. In respect of social participation of farmers, large group of farmers did not evince interest in social activities, however only few farmers were actively involved in milk cooperative societies (10 per cent). In the study area, majority of the farmers did not involve in extension activities, while very few farmers involved once in a while and more than once in extension activities.

**Sharma and Kapoor** (2020) did a study on the sericulture as a profit-based industry. They collected data from secondary sources. Silk has always been fashionable and for the last few years, it has remained a strong component of the international fashion trends. It particularly suits rural based farmers, entrepreneurs and artisans, as it requires small investment, but with potential for relatively higher returns. It provides income and employment to the rural people especially farmers with small landholdings and the marginalized and weaker sections of the society.

### III. MATERIALS AND METHODS

A preliminary survey was undertaken with pretested interview schedule. Even though the headquarters of Tamil Nadu sericulture is located in Salem district, the production of silkworms is comparatively more in Namakkal district. Thus, 60 respondents belonging to sericulture farming community in Namakkal are selected as sample using random sampling method. The selected respondents were met in person and enquired the information required for the study. The field investigation was carried out during January to March 2023. In addition to collecting information regarding the socio-economic condition of the farmer age, educational status, family type, cost estimation of silkworm, occupation involved in the survey also focused on the constraints faced by the sericulture farmers. The data gathered was analyzed using simple frequency distribution and percentage, and also the constraints faced by the farmers were ranked using Garrett ranking method.

### IV. RESULT AND DISCUSSION

**Table: 1 Socio-Economic Background of Sericulture Farmers in Namakkal District**

Particular	Classification	Frequency (N=60)	Percentage
Age	Less than 43	16	26.7
	43.1 to 54	25	41.7
	More than 54	19	31.6
Marital status	Married	59	98.3
	Un married	1	1.7
Gender	Male	58	96.7
	Female	2	3.3
Type of family	Nuclear	60	100.0
	Joint	0	0.0
Occupation	Agriculture	60	100.0
	Others	0	0.0
Educational qualification	Primary	16	26.7
	Secondary	31	51.7
	HS	6	10.0
	HSS	4	6.7
	UG	1	1.7
Ownership of House	Own	60	100.0
	Concrete	37	61.7
Nature of House	Tiled	2	3.3
	Thatched	21	35.0
	Below 4	34	56.7
Experience	4.1 to 6	18	30.0
	Above 6.1	8	13.3
	Co- farmers	12	20.0
Awareness about Sericulture cultivation	Sericulture officer	47	78.3
	Digital source	1	1.7
Have you attended the training	Yes	60	100
	No	0	0.0
<b>Annual Income of the Sericulture Farmers (in rupees)</b>			
	<b>Mean</b>	<b>SD</b>	<b>N</b>
<b>Sericulture Income</b>	38150	14122.73	60
<b>Subsidiary Income</b>	254233.33	151249.75	60

Source: Primary Data

Table 1 show the socio-economic background of sericulture farmers in Namakkal district. Majority of farmers were in the age category of 43.5 to 54, and almost 98.3 per cent got married. None of the famers were belonging to joint family and it was found that all the farmers selected for the study belongs to nuclear family. Likewise, the farmer community are solely depending up on agriculture and its allied activities for their livelihood. While considering the educational qualification, a maximum of 31 farmers had secondary level education and only one was undergraduate. Nearly 34 out of 60 farmers living in concrete house type. While 21 were resides in thatched house. It was evident that about 56.7 percentage of the total farmers have the experience of 4.1 to 6 years in sericulture activities. About 8 farmers (13.3 percentage) have an experience more than 6 years. Almost 78.3 percentage of farmers were directly approached by the sericulture officers and only one was aware about the sericulture through digital source. Mostly the entire sericulture farmers were attended the training programme. It is evident that entire totally dependent upon agriculture, and also here they earn from other sources too as subsidiary income. The major source of subsidiary income may include rent receiving from tenants, and income from various agriculture and allied activities like dairy and poultry farming other than sericulture.

**Table 2: Problem Faced by the Mulberry Cultivation**

Sl. No.	Factors		I 93	II 89	III 86	IV 83	V 81	VI 80	VII 78	Total Score	Mean Value	Rank
1	Effect of Co-farmers' Pesticide	F	15	15	28	1	1	0	1	60	89.66	I
		FX	1395	1335	2408	83	81	0	78	5380		
2	Erratic Weather Condition	F	34	15	8	0	0	1	1	60	89.05	II
		FX	3162	1335	688	0	0	80	78	5343		
3	Shortage of Hired Labour	F	9	23	17	7	2	0	3	60	88.71	III
		FX	837	2047	1462	581	162	0	234	5323		
4	Lack of Insurance Facility	F	0	4	4	26	8	10	9	60	83.46	IV
		FX	0	356	344	2158	648	800	702	5008		
5	Shortage of Irrigation	F	1	1	2	15	11	11	3	60	60.06	VII
		FX	93	89	172	1245	891	880	234	3604		
6	Quality of Plants	F	0	1	0	8	14	27	10	60	83.43	V
		FX	93	89	86	664	1134	2160	780	5006		
7	Information Regarding Mulberry Cultivation	F	1	1	1	3	8	11	33	60	76.98	VI
		FX	93	89	86	249	648	880	2574	4619		

**Source:** Primary Data

**Note:** X-Scale, F-Number of sample Farmers, FX-Score

Table 2 shows the constraints faced by the mulberry farmers. Among the various constraints, effect of co-farmer's pesticides ranked first with the mean value of 89.66 as the upshot from the usage of pesticides in the nearby farms may also negatively hit other mulberry farms too. This was followed by the problem of vigorous climate change with an average of 89.05. According to garret ranking analysis, problems relating to shortage of irrigation has been ranked seventh with least mean value 6. As the irrigation facilities seems to be satisfied in the study area.

Table 3: Problems Faced by Silkworm Farmer

Sl. No.	FACTORS		I 93	II 89	III 86	IV 83	V 81	VI 80	VII 78	Total Score	Mean Value	Rank
1	Lack of availability of HYV Seeds	F	15	34	9	0	1	0	0	60	86.6	V
		FX	1395	3026	774	0	1	0	0	5196		
2	Inadequate Market Knowledge	F	15	15	23	4	1	1	1	60	87.98	III
		FX	1395	1335	1978	332	81	80	78	5279		
3	Lack of Transport Facility	F	28	8	17	4	2	0	0	60	87.86	IV
		FX	2604	712	1462	332	162	0	0	5272		
4	No Insurance Facility	F	1	0	7	26	15	8	8	60	88.67	II
		FX	93	0	602	2158	1215	640	624	5332		
5	Shortage of Hired Labour	F	1	0	2	8	11	14	4	60	54.2	VI
		FX	93	0	172	664	891	1120	312	3252		
6	Change Weather Condition	F	0	1	0	10	11	27	27	60	101.27	I
		FX	0	89	0	830	891	2160	2106	6073		
7	Pests and Disease Attack	F	1	1	3	9	3	10	10	60	50.16	VII
		FX	93	89	258	747	243	800	780	3010		

Source: Primary Data

Note: X-Scale, F-Number of sample Farmers, FX-Score

Table 3 indicates the constraints faced by the silkworm farmers in the study area. Among various problems, the most predominant one is as in the case of mulberry cultivation is change in weather condition with the mean value of 101.27. Because sudden changes in climate will adversely affect the silkworms. Secondly, absence of insurance facility with a mean value of 88.67. The third problem is lack of acquiring market knowledge with the mean value of 87.98. Because there is day to day price fluctuations in the market. The least mean value is obtained for pest and disease attack.

## V. CONCLUSION

Sericulture plays a vital role in removing rural poverty due to its high work participation rate. It is also an agro-based enterprise and profitable one too if it handled in a right way. It is evident from the study that government has taken effective steps based on sericulture training to the farmers. Based on the current study, the prime constraints found to be the erratic change in weather conditions and effect of co-farmers pesticide. It can be concluded that the socio-economic background of the sericulture farmers in the study area seems to be satisfactory and also, the district authorities should adopt necessary steps to reduce harmful effects of sudden climatic change and unwanted usage of pesticides by the ignorant farmers.

## REFERENCE

- Brian Ssemugenze, Joseph Esimu, Janet Nagasha, Clet Wandui Masiga (2021): Sericulture, Agro-Based Industry for Sustainable Socio-Economic Development, *International Journal of Scientific and Research Publications*, 11(9): 472-482.
- Chouhan, S., Mittaal, V., Babulal, Sharma, S.P., & Gani, M. (2016). Situation Analysis of Sericulture Industry in Jammu and Kashmir. *Bio Bulletin*, 2(1), 52-57.
- Chowdhuri, S.R., Umasankar, Das, N.K., Sahu, P.K., & Majumdar, M.K. (2011). Studies on involvement of women and their contribution share in sericulture activities. *Journal of Crop and Weed*, 7(2), 37-40.
- Dar, S.A., Akhter, R., & Geelani, S.N. (2017). Impact of sericulture industry on Jammu and Kashmir Economy: (With Special reference to District Baramulla). *International Journal of Multidisciplinary Education and Research*, 2(2), 60-64.
- Debnirmalaya Gangopadhyay (2009): Sericulture Industry in India, *India Science and Technology*. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1473049](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1473049)
- Dewangan, S.K. et al., (2011). Socio economic upliftment of Tribal through Tasar sericulture- a study of Tamnar block of Raigarh district, C.G, India. *World Academy of Science, Engineering and Technology*, 72, 481-492.
- Economic Survey (2010-11): Directorate of Economics and Statistics, Govt. of Jammu and Kashmir.
- Geetha and Indra (2011): silkworm rearing by rural women in Karnataka A path to empowerment, *Indian Journal of General Studies*, 18(1): 89-102.
- Kaneez F (2018): Trends in cocoon and silk production in Jammu and Kashmir State-a case of concern, *International Journal of Recent Scientific Research*, 4(11): 1826- 1830.

---

**Kumar Santhosh Dewangan** (2018): A Study Based on the Economics of Sericulture in Raigarh District, *Interantional Journal for Research in Applied Science & Engineering Technology*, 6(1): 573-579

**Nisar G.K. and Afifa** (2012): Indian Sericulture Industry with particular reference to Jammu and Kashmir, *International Journal of Advanced Biological Research*, 2(2): 194- 202.

**Raju, M., Sannappa, B., & Manjunath, K. G.** (2019). Socio Economic Status of Sericulture Farmers under rainfed condition in Chamarajanagar district, Karnataka State. *International Journal Pure Applied Bio science*, 7(2), 574-581.

**Sharma, K., & Kapoor, B.** (2020). Sericulture as a profit-based industry—a review. *Indian Journal of Pure and Applied Biosciences*, 8(4), 550-562