



A socio-economic analysis of women's participation in sericulture

■ S. Raveesha*, K. Amaresh Kumar¹ and D. Shashikala Bai²

Department of Agricultural Economics, College of Horticulture, Hiriyyur, CHITRADURGA (KARNATAKA) INDIA

¹Department of Agricultural Extension, College of Horticulture, Hiriyyur, CHITRADURGA (KARNATAKA) INDIA

²Department of Agricultural Engineering, College of Horticulture, Hiriyyur, CHITRADURGA (KARNATAKA) INDIA

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*Author for correspondence

ABSTRACT

Silk is one of the most commercially and traditionally valued product in the world. It not only provides livelihood but also creates employment opportunities for millions of people. Women's income plays a dominant role for food, financial and educational upliftment of the rural families. Mulberry is one of the major commercial crop for majority of dry land farmers in India particularly in Karnataka. This study aims to understand the participation of women in sericulture and to know the problems faced by them. The rural women entrepreneurs engaged in Sericulture activities along with agriculture in old Mysore, Tumkur, Chikkaballapur and Kolar districts of Karnataka were selected for the study. The respondents were randomly selected a total of 120 (30 from each district) respondents. Simple statistical tools like averages and percentage distribution has been used to analyse the data, in order to draw meaningful inferences and to facilitate comparison of the average farm situation. Majority of respondents (60 %) are engaged in sericulture, it contributes the highest percentage (28.41 %) of the income of the households, followed by service sector contributing 20.32 per cent. Involvement of women is high in all activities except those activities which involve going out from their homes like collection of planting material and procurement of fertilizers and manure. This study indicated that 25.83 per cent of respondents started sericulture to do as an independent business followed by 23.33 per cent have increased their economic status, 22.50 per cent of the respondents are earning high net income and 19.16 per cent have felt that it is suitable for small farmers. The study indicates that Sericulture can come out as the most vital opening, in generating women's income in rural areas. Most of the women entrepreneurs involved in sericulture have minimum educational qualification, so government and sericulture department can organize effective training and development activities along with the line departments to uplift socio-economic status of the rural women's.

INTRODUCTION

Silk is one of the most commercially and traditionally valued product in the world. It not only provides livelihood

but also creates employment opportunities for millions of people. The world raw silk production was 1,52868 MT during 2011. India is the second largest producer of silk in the world and has 15.49 per cent share in global raw

silk production (CSB, 2013). India has the unique distinction of being the only country producing all the five kinds of silk namely Mulberry, Eri, Muga, Tropical Tasar and Temperate Tasar.

Family income is the most vital indicator for economic growth and development of the country. Now-a-days in rural India, revenue creation assumes immense importance for women. Women constitute more than 50 per cent of the world's population, one third of the labour force and perform nearly two thirds of all working hours. In many countries including India, women are often paid only two-third or even half of the wages that is earned by men for the same task (FAO, 1995). Women's income in a family plays a dominant role for food, financial and educational upliftment of the rural families. In fact, women in general are found to bear double burden in the development process – one on the domestic front and the other on the economic front. It is found that women are engaged in work when other members of the family are enjoying rest (Gupta and Gupta, 1987). The continuous increase in prices has also pushed women to income generating activities within or outside the household to maintain their family. It is found that India is the home to 12.7 crore working women and 90 per cent of them are working in the unorganized sector (Census of India, 2001). However, it is found that although women are engaged in various fields, the participation of women is mostly found in marginal and casual employment due to inadequacy of skills, illiteracy, restricted mobility and lack of individual status (Chari, 1983). Women are also engaged in the unorganized sector (Mehta and Sethi, 1997). They

are overwhelmingly concentrated in agro-based/household based activities (where they often serve as unpaid family labour) such as dairying, fisheries, small animal husbandry, handlooms, handicrafts and sericulture. Sericulture is mostly a village-based industry providing employment opportunities to a large section of the population. Mulberry is one of the major commercial crop for majority of dry land farmers in India particularly in Karnataka. It plays a significant role in getting better rural household income, contributing towards Education, food and shelter. In spite of its high production prospective in south India in general and the study districts (old Mysore region including Tumkur, Kolar and Chikkaballapur) in particular. Low production in mulberry is mainly associated with non-adoption and unwillingness of farmers to adopt the recommended package of practices for production.

Table B : Area under mulberry in major silk producing states of India in 2010 - 11

Sr. No.	State	Area (ha)	Percentage
1.	Karnataka	70,958	41.88
2.	Andhra Pradesh	40,314	23.79
3.	Tamil Nadu	14,593	8.61
4.	West Bengal	13,557	8.00
5.	Jammu and Kashmir	7,082	4.18
6.	Assam	7,074	4.18
7.	Manipur	6,298	3.72
8.	Maharashtra	2,326	1.37
9.	Mizoram	2,170	1.28
10.	Kerala	1,748	1.03
11.	Madhya Pradesh	1,677	0.99
12.	Uttar Pradesh	1,632	0.96
	Total	1,69,429	100

Table A : Global raw silk production (MT)

Sr. No.	Country / year	2008	2009	2010	2011	2012
1.	China	98620	84000	115000	104000	126000
2.	India	18370	19690	20410	23060	23679
3.	Brazil	1177	811	770	558	614
4.	Indonesia	37	19	20	20	20
5.	Iran	180	82	75	120	123
6.	Japan	96	72	54	42	30
7.	North Korea				300	300
8.	Thailand	1100	665	665	665	665
9.	Turkey	15	20	18	22	22
10.	Uzbekistan	770	780	940	940	940
11.	Vietnam			550	500	450
12.	Others	31	30	31	47	57
13.	Total	120396	106169	138505	129684	152868

Source: Central silk board, 2013

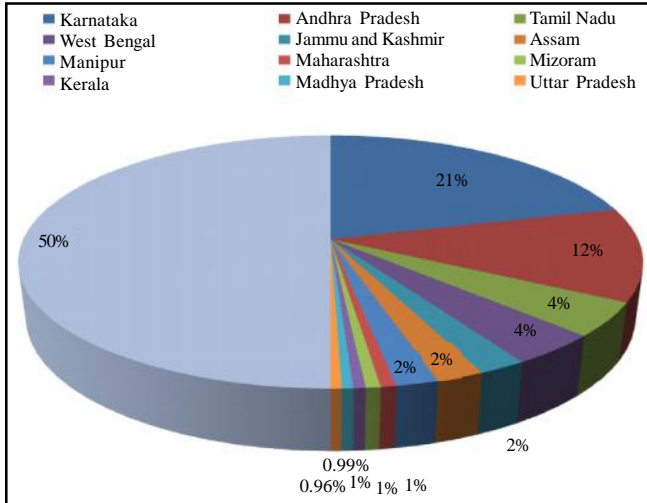


Fig. A : Area under mulberry in major silk producing states of India in 2010 - 11

Importance of the study :

In developing countries like India, agriculture and agro based industries play a crucial role in the improvement of rural economy. Sericulture is an occupation by and for women because women form more than 60 per cent of the workforce and 80 per cent of silk is consumed by them. Sericulture provides scope for the direct involvement of women in the process of production and decision making for improving their economic conditions and it enables them to gain greater recognition and status in the family and society. The limited availability of land, the limited cash returns, and agriculture being confined to one or two seasons in the year, have made villages looking for supporting rural industries, such as sericulture. This study aims to understand the participation of women in sericulture and to know the problems faced by them. The rural women entrepreneurs engaged in Sericulture activities along with agriculture in old Mysore, Tumkur, Chikkaballaur and Kolar districts of Karnataka were selected for the study with the following objectives :

- To study the women participation in various Sericulture activities
- To identify the motivational factors and reasons influencing women to take sericulture
- To analyze strengths, weakness, opportunities and threats in sericulture industry.

MATERIAL AND METHODS

Choice of the study area :

The old Mysore, Tumkur, Kolar and Chikkaballapur

districts are well known for the cultivation of Mulberry. The districts are noted for production of silk through its soil characters, climatic condition and rainfall. In the study area Agriculture is mainly rainfed. Agriculture is heavily monsoon dependant as 80 per cent of the area is rain fed. The tanks, and bore wells are the primary sources of irrigation. In this area there are no perennial rivers for irrigation. However, there are small rivers and canals flowing only during rainy season. Based on the objectives of the study the location for the baseline survey was purposively selected on the basis of the availability of the different categories of the farmers. The farmers selected in the area were widely distributed and adopted diversified cropping system.

Selection of the sample villages and sampling :

For identifying the sample villages, the resource persons from department of Sericulture, silk board, silk markets, SAU, co-operative societies and Grampanchayats in the villages were approached. The basis of selection was acreage under sericulture. A random sample of 30 women Sericulturists from each District was selected for the study. The villages were randomly selected for the purpose of data collection by considering the number of households, type of farmers and the crops being cultivating. The study was carried out keeping in mind the difficulties in getting information related to income of women and appropriate care was taken to ensure that the information collected was as accurate as possible.

Selection of respondents :

The women Sericulturists were selected based on their land holding and the number of crops being cultivated by them. Hence, respondents were randomly selected in each of the District. A total of 120 (30 from each district) respondents were selected where all the respondents were practicing Mulberry cultivation.

Collection of primary and secondary data :

The information was obtained through personal interview by using a well structured schedule. The additional information was collected through secondary data available from different sources/departments like central silk board, Department of sericulture, district information and statistics, Literature review etc. The schedule prepared for this study was used to elicit primary data from the sample women sericulturists through

personal interviews during Aug - Sept 2013.

Analytical frame work :

Weighted average was computed in respect of number of respondents, socio-economic features, family income, women participation in cropping pattern and opinion on silkworm rearing. The data collected was classified and put in tabular form for analysis purpose. Simple statistical tools like averages and percentage distribution has been used to analyse the data, in order to draw meaningful inferences and to facilitate comparison of the average farm situation.

OBSERVATIONS AND ANALYSIS

Table 1 indicates the occupational structure of the respondents. Majority of respondents (60 %) are engaged in sericulture activities in the study area. As has been mentioned earlier, sericulture has existed in old Mysore, Tumkur, Chikkaballaur and Kolar district almost as a practice amongst the people since time immemorial. Only 9.17 per cent of the women derive their income from agriculture, in spite of the economy being dependent on agriculture. The table also shows that 10 per cent of the women in the study area derive their income from livestock rearing, which is also a household activity. It is to be noted that the manufacturing sector is almost non-existent. Women engaged in the service sector are mostly engaged in the recent employment opportunities given by the state and central govt. Schemes like National Rural Health Mission (NRHM), working as ASHA workers and a few in the nearby schools of the locality.

Sr. No.	Source of income	No. of respondents	Percentage
1.	Agriculture	11	9.17
2.	Service sector	8	6.67
3.	Sericulture	72	60.00
4.	Petty trade	4	3.33
5.	Wage earnings	10	8.33
6.	Livestock	12	10.00
7.	Others	3	2.50
8.	Total	120	100.00

Table 2 indicates the average household income of the sample household. As can be seen from the table, sericulture contributes the highest percentage (28.41 %) of the income of the households, followed by service sector contributing 20.32 per cent. Higher

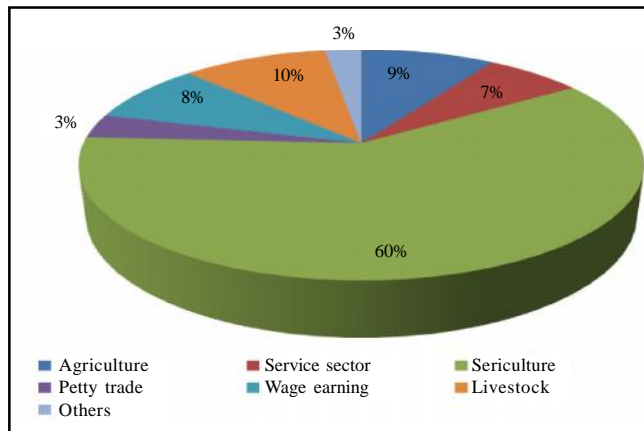


Fig. 1 : Major occupation of the respondents in the study area

income from sericulture is due to the reason that the women in the sample households mostly are engaged in sericulture as their prime occupation, whereas the men were engaged in other activities, including Agriculture, sericulture etc.

Sr. No.	Source of income	Average income generated	Percentage
1.	Agriculture	35,856	12.18
2.	Service sector	59,840	20.32
3.	Sericulture	83,659	28.41
4.	Petty trade	28,914	9.82
5.	Wage earnings	22,300	7.57
6.	Livestock	38,642	13.12
7.	Others	25,248	8.57
8.	Total	2,94,459	100.00

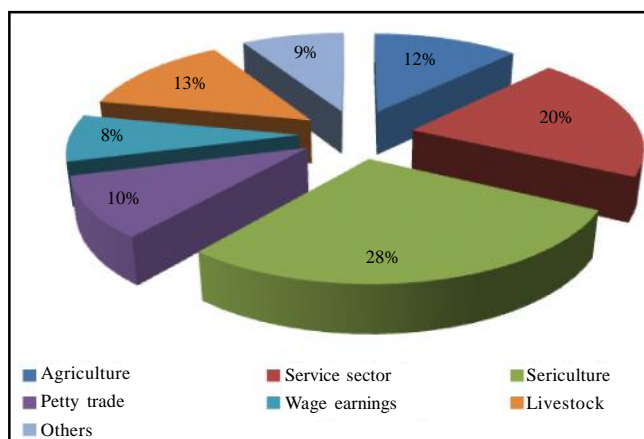


Fig. 2 : Average income derived by the respondents from different sources

Women engage themselves in different activities of Mulberry cultivation. The contribution of women Sericulturists in different activities is shown in Table 3. Involvement of women is high in all activities except those activities which involve going out from their homes like collection of planting material and procurement of fertilizers and manure.

Table 3 : Women participation in various activities of mulberry cultivation

Sr. No.	Activities	No.	% of women participation
1.	Land preparation	59	49.16
2.	Collection of planting material	19	15.83
3.	Procurement of fertilizers and manure	26	21.66
4.	Planting	99	82.50
5.	Application of manure	79	65.83
6.	Application of fertilizer	87	72.50
7.	Pest and disease management	39	32.50
8.	Transportation of leaf	55	45.83

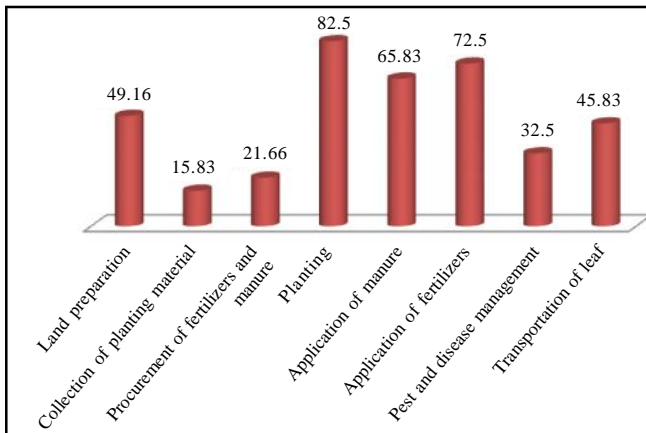


Fig. 3 : Women participation in various activities of mulberry cultivation

Table 4 shows the women participation in various activities of silkworm rearing. The involvement of women is very high in all activities except marketing and finance and account keeping. The Activities like maintenance of hygienic conditions, spinning, bed cleaning, chowki rearing, harvest sorting and planting are mostly done by the women in the study area.

Table 5 indicates the motivational factors / reasons of the respondents to start sericulture, the highest per cent (63.33 %) of the respondents have agreed that they started sericulture mainly because their knowledge about

Table 4 : Women participation in various activities of silkworm rearing

Sr. No.	Activities	No.	Percentage
1.	Chowki rearing	103	85.83
2.	Leaf preservation	108	90.00
3.	Maintenance of hygienic conditions	116	96.66
4.	Pest and disease management	75	62.50
5.	Maintenance of environmental conditions	92	76.66
6.	Bed cleaning	110	91.66
7.	Spinning	109	90.83
8.	Harvest sorting	112	93.33
9.	Marketing	28	23.33
10.	Finance and account keeping	28	23.33

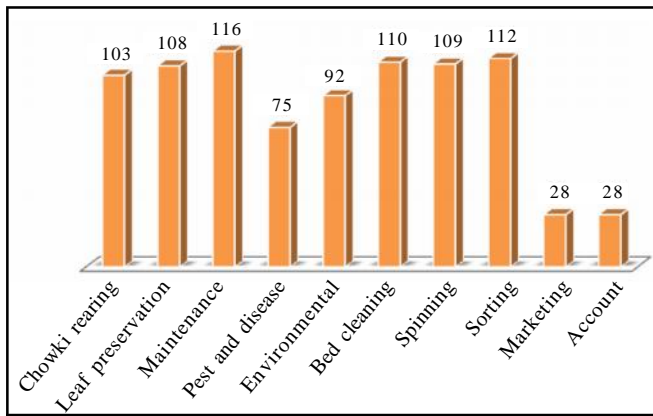


Fig. 4 : Women participation in various activities of silkworm rearing

the cultivation aspects, 62.50 per cent have agreed that, as there was no suitable alternative crop for Mulberry in this area and 60 per cent have agreed for doing sericulture business in order to have full employment for the family members. Most of the (37.50%) respondents were motivated by their relatives to start sericulture, followed by 31.66 per cent of the respondents being motivated through awareness programs and 30 per cent were motivated by field officers. The Table 4 also indicates that 67.50 per cent of the respondents disagreed that sericulture is a low investment crop followed by 64.16 per cent of the respondents disagreed for sericulture as a suitable occupation for small farmers.

This study indicates that 25.83 per cent of respondents started sericulture to do independent business followed by 23.33 per cent who started to increased their economic status 22.50 per cent of the respondents for earning high net income and 19.16 per cent of the

respondents felt that it is suitable for small farmers by availing subsidies, readily available technical guidance, easy to understand and adopt sericulture technology these are the other reasons to take up sericulture as their main occupation.

Conclusion :

The study indicates that sericulture can emerge as the most vital opening in generating women's income in the study area. It is the least resource intensive activity, which also does not require high education for the farmers. Even though the participation of women is high

in sericulture industry, they face various problems while starting and promoting their sericulture business. Most of the women entrepreneurs involved in Sericulture have minimum educational qualification, so government and sericulture department can organize effective training and development activities for them, which will ultimately reduce the problems and also enable the women entrepreneurs to overcome the obstacles. Sericulture is one among the high income generating industry. Hence, promoting women entrepreneurs in sericulture will lead to economic development and empowerment of women. The returns from this activity are speedy with a short

Sr. No.	Factors/reasons	Agreed		Don't know		Disagree	
		No.	Percentage	No.	Percentage	No.	Percentage
1.	Relatives	45	37.5	7	5.83	68	56.66
2.	Awareness programme	38	31.66	54	45.00	28	23.33
3.	Field officers	36	30.00	27	22.50	57	47.50
4.	Magazines	14	11.66	32	26.66	74	61.66
5.	High net income	27	22.50	32	26.66	61	50.83
6.	To do independent business	31	25.83	41	34.16	48	40.00
7.	Economic status will be increased	28	23.33	38	31.66	54	45.00
8.	Full employment for family members	72	60.00	29	24.16	19	15.83
9.	Low investment	15	12.50	24	20.00	81	67.50
10.	Suitable occupation for small farmers	23	19.16	20	16.67	77	64.16
11.	No suitable alternative crops available	75	62.50	6	5.00	39	32.50
12.	Knowledge about the cultivation aspects	76	63.33	12	10.00	32	26.67

Strengths	Weakness	Opportunities	Threats
Prevailing congenial climatic condition for mulberry cultivation and silk production	Weak extension network and gaps in technical know how by the farmers	Reduction in migration of rural youths to urban areas through employment generation.	Excess import of raw silk from china and other neighbouring countries
Availability of suitable land and skilled economical labours	Poor market accessibility and misunderstandings between the stake holders	Creation value added products by establishing small scale industries in rural areas.	Unpredictability of prices in international silk markets.
Availability of potential high yielding silkworm cultivars and well equipped infrastructure	Less incentives from the govt. and private sectors for silk producers	Scope for increased production and export due to liberalization under WTO regimes in developing countries like India.	Incapability of the traders to cater quality services in silk industry
Low cost of production and continuous flow of income throughout the year.	Low incentives for the silk producers	greater demand at international and domestic markets for Indian silk products	Poor knowledge of the local producers regarding quality silk production.
Availability of feasible technologies and potential demand for the silk products	Weak pricing system in silk market and erratic Price fluctuations besides import from china at lower cost.	Use of silk for Development of silk fabrics by fashion industry and silk products have scope for earning more foreign exchange	Weakness in policy development and implementation by the govt. Towards silk production

gestation period. Sericulture has the added advantage of having diverse activities and hence, the entire family can get involved in the production process, creating continuous employment and income opportunities. Most of the activities related to sericulture, particularly rearing can be done indoors. Another advantage of sericulture is that, it is not season dependent therefore, can be carried out throughout the year. The study area is being an agricultural region with an almost non-existent secondary and tertiary sectors, development of sericulture can help in creating gainful employment and a steady source of income. Thus, if sericulture is taken up as a full-time activity in the study area, it will go a long way in increasing the income of the respondents and raising their standard of living.

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