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Farmer's empowerment through sericulture industry from Aurangabad District, Maharashtra State, India

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ABSTRACT

India is agriculture based country and majority of population inhabiting in rural areas totally depends on agriculture. There are many agro-allied sectors which provide ample opportunities to farmers. The sericulture is also one of them which is lucrative and have great potential. The present global scenario clearly indicates enormous opportunities for the Indian Silk Industry. Sericulture is one of the most labor intensive sectors, combining activities of both agriculture (sericulture) and industry. In Maharashtra State Aurangabad district is one of the leading districts in sericulture. The sericulture is an important means for generating employment, income enhancement crop enterprises and is a most appropriate household activity. In all these activities, women have shown their mettle and performed their tasks most skillfully. The present study deals with the sericulture activities undertaken by the farmers in the different Tahsils of Aurangabad and how their participation has led to community development and economic empowerment is discussed in detail from Aurangabad District of Marathwada region, Maharashtra state, India. .

Key words: Sericulture, Farmers, participation, silk industry, economic empowerment, Aurangabad district.

INTRODUCTION

India has been ranked as the second major and largest raw silk producer in the world as it contributes about 18% to the total world raw silk production, with an annual silk production of around 20,000 Metric Tons. The sericulture is an agro-based labor intensive industry. In India, it is a village-based industry practiced in about 53,814 villages and provides employment to about 6 million people moreover it is capable of providing continuous income to farmers.

Sericulture is divided in two sectors namely farm and industry [1]. Sericulture broadly comprises inter-linked activities such as food plant cultivation, maintenance to feed the silkworms, silkworm rearing to produce the silk cocoons, reeling the cocoons for unwinding the silk filament, yarn making, weaving and processing of fabric [2].

India is the only country in the world to produce all the four varieties of silk namely Mulberry, Eri, Tasar and Muga are produced in the country. Mulberry is the largest practiced sericulture industry in India. Mulberry silk production contributes almost 80 percent for entire silk production in the country. There are 10 million silkworm rearers and 0.5 million related industrial workers in the world [3]. Asia is the top producer of silk in the world contributing 95% of the total global output. Sericulture play very effective role in the utilization of the natural resources in a most effective manner for socio-economic upliftment with livelihood, employment and income generation [4].

Sericulture is an integral part of tribal life, practiced by about 1.5 lakh tribal population in the states of Jharkhand, Chhattisgarh, Orissa, Madhya Pradesh, Utter Pradesh, West Bengal, Bihar, Maharashtra and Andhra Pradesh [5]. Sericulture is the activity of low investment and high output [6]. Sericulture is a cash crop in the agriculture sector; it

gives returns within 30 days. Hence, these help to rural people for the socio- economic development, women empowerment, increase children's education, and social activities developments through sericulture activities in India.

In Maharashtra State both mulberry and Tasar sericulture is practiced and the farmers are very happy with this industry as they are earning very good lucrative amount. The Paithan dist. Aurangabad, Yeola dist. Nasik, Solapur and Andhalgaon dist. Bhandara are the main places in Maharashtra where silk weaving is done by traditional weavers [7].

In developing countries like India, agriculture and agro based industries play a vital role in the improvement of rural economy. In Maharashtra state also sericulture industry has gained the popularity among farmers. The Marathwada region and Aurangabad district is having very bright opportunities for farmers in sericulture activities. In sericulture industry along with other members of family the women has a crucial role in the activities of sericulture, it equally creates opportunities and make them independent socially, economically, politically, and otherwise [8,9,10,11,12, 13,14]. The women can generally be trusted to perform their duties with utmost care and attention. Their qualities like maternal instincts and loving care of those under their charge prove to be very helpful in the successful breeding of silk worms. Silkworm being delicate has to be handled with care. Thus, the entire process needs skill and patience, which suits women well and it is also seen true in Aurangabad district.

The present survey indicates the vital role of sericulture in farmer's empowerment in Aurangabad district and it helps them in development of their family and Indian economy also.

MATERIALS AND METHODS

This study was conducted with the survey of sericulture villages from Paithan, Kannad, Phulambri, Vaijapur and Gangapur tahsil of Aurangabad District from Marathwada region of Maharashtra state, India. Respective maps are shown below. The collected information and data is mainly based on visits and the personal interviews with farmers participated in sericulture activities. The secondary sources of information and data are collected from various sources like- Published articles, journals, news papers, Aurangabad district economic survey and the District sericulture office, Aurangabad. The collected data is tabulated and interpreted. The data is collected for the duration years 2011-2015 pertaining to sericulture.

Map of Maharashtra State

Map showing Marathwada region

Map of Aurangabad District

RESULTS AND DISCUSSION

The study shows that sericulture have gained importance in recent years in the study areas and it can emerge as the most important opportunity in generating women's employment and income generation in the study area. It is the least resource intensive activity, which also does not require high education, more hectic, hard work. In fact, a very low investment, easy technology and work help them to undertake this activity and it leads to earn high returns. It generates direct and indirect employment in various ways. Sericulture also creates gainful employment for all aged persons at homes at minimum risk. The outstanding role of women in triggering community development is observed in the different villages from Aurangabad district.

Table no. I. Indicates year wise, Taluka wise mulberry plantation acreage, DFL's consumption, total cocoon production and the cocoon sold amount in rupees by the farmers from Aurangabad district of Maharashtra, India. In the district Mulberry area is also increased in year 2014-15 was 360 Acre and total number of farmers were 269, while it was 20.5 Acre with total number of farmers were 22 only during 2011-12. In year 2011-12 the production of Cocoon was 4718.34 Kg while it is continuously increased and in year 2014-15 it was 44144.45 kg. However, the consumption of Disease free egg laying (DFL's) utilized in year 2011-12 was 7950 while in the year 2014-15 it is 73050 showing tremendous increase in the sericulture practice in Aurangabad district.

Table no.2: Showed tehsil wise status of men and women farmers doing Sericulture from Aurangabad district of Marathwada region of Maharashtra, India from year 2011 to 2015. In this survey, the five tehsil in Aurangabad district viz. Kannad, Paithan, Phulambri, Vaijapur and Gangapur are seems to be active in carrying out sericulture practices. In year 2011-12 the cocoon production by male farmer is higher in paithan tehsil is 2186.54 kg while the cocoon production doing by female farmer was also higher in paithan tehsil is 189.00 kg. It was increased in year 2014-15 in Paithan tehsil is 27699.75 kg and 5549.4 kg cocoon production doing by male and female farmer respectively.

It is seen that the female shows interest in sericulture and the numbers of female farmers are increased continuously in all talukas. In year 2011-12 female farmers was only 01 in 2012-13 it was 09 and in 2013-14 it was 13 and in 2014-15 it becomes 45 in number. It indicates the females are showing their interest in sericulture. The figure I to V shows the graphic representation of sericulture status and its different parameters from Aurangabad

Sericulture has the added advantage of having diverse activities and hence the entire family can get involved in the production process, creating employment and income opportunities. Another advantage of sericulture is that, it is an activity, which does not depend on season, but can be carried out throughout the year. One of the reasons behind the popularity of sericulture in the Aurangabad district is that, it has the surety of crop and earning income when compared with other regular traditional crop like soybeans, cotton etc. The average annual income from those regular crops is ranging from rupees 20,000/- to 22000/-; while from sericulture the average annual income is 80000/- to 1, 80,000/- rupees per acre. The income generated through sericulture is even high with some farmers under study area.

Table no. I: Tehsil wise Status of sericulture industry from Aurangabad district during 2011-15 from Maharashtra State, India

Sr. no.	Year	Tehsil	Mulberry Area (Acre)	Total No. of Farmers	DFL,S Utilized	Cocoon Production in kg	Amount in Rs.
1	2011-12	Kannad	1.5	02	650	512.1	1,44,945
		Paithan	11	09	4750	2375.54	6,92,022
		Phulambri	08	11	2550	1830.7	4,81,694
Total			**20.5**	**22**	**7950**	**4718.34**	**13,18,661**
2	2012-13	Kannad	9.25	10	2750	2105.2	5,80,004
		Paithan	38	31	7050	7028.8	20,29,586
		Phulambri	5.5	05	3050	1952.4	5,45,100
		Vaijapur	02	02	400	274.5	80,325
		Gangapur	01	01	50	69.4	16,656
Total			**55.75**	**49**	**13300**	**11430.3**	**32,51,671**
3	2013-14	Kannad	13	13	2050	2248.6	6,16,401
		Paithan	85	56	29700	21048.46	60,76,295
		Phulambri	01	01	250	206.5	57,546
		Aurangabad	07	07	1050	1610.7	4,52,285
Total			**106**	**77**	**33050**	**25114.26**	**72,02,527**
4	2014-15	Kannad	18	15	3800	1462	4,39,510
		Paithan	266.5	192	52000	33249.15	2,19,07,225
		Phulambri	46	45	12650	6708.6	20,59,438
		Aurangabad	06	03	300	350	1,05,000
		Gangapur	03	01	400	265	72,550
		Sillod	20.5	12	3900	2109.7	6,69,469
Total			**360**	**269**	**73050**	**44145.45**	**2,52,53,192**
GRAND TOTAL			**542.25**	**416**	**127350**	**85408.35**	**3,70,26,051**

Table no. II: Tehsil wise status of Sericulture and Participation of Men and women Farmers from Aurangabad district from 2011 to 2015

Sr. No.	Year	Name of Tehsil	Sericulture by male farmers					Sericulture by female farmers				
			No. of farmers	Mulberry Area (Acre)	DFL,s utilized	Cocoon Production (Kgs.)	Amount (Rs.)	No. of farmers	Mulberry Area (Acre)	No. of DFL's Utilized	Cocoon Production (Kgs.)	Amount (Rs.)
1	2011-12	Kannad	02	1.5	650	512.1	1,44,945	-	-	-	-	-
		Paithan	08	10	4300	2186.54	6,35,502	01	01	450	189.00	56,520
		Phulambri	11	08	2550	1830.7	4,81,694	-	-	-	-	-
			21	**19.5**	**7500**	**4529.34**	**1262141**	**01**	**01**	**450**	**189.00**	**56520**
2	2012-13	Kannad	10	9.25	2750	2105.2	5,80,004	-	-	-	-	-
		Paithan	25	29	5400	5587.8	16,00,571	06	09	1650	1441	4,29,015
		Phulambri	03	2.5	2200	864.5	2,42,310	02	03	850	1087.9	3,02,790
		Vaijapur	01	01	100	73.2	18,300	01	01	300	201.3	62,025
		Gangapur	01	01	-	69.4	16,656	-	-	-	-	-
			40	**42.75**	**10450**	**8700.1**	**2457841**	**09**	**13**	**2800**	**2730.2**	**793830**
3	2013-14	Kannad	12	12	1600	2177.1	6,01,386	01	01	450	71.5	15,015
		Paithan	47	74	25950	18101.16	51,88,537	09	11	3750	2947.3	8,87,758
		Phulambri	-	-		-	-	01	01	250	206.5	57,546
		Aurangabad	07	07	1100	1610.7	4,52,285	-	-	-	-	-
			65	**93**	**28650**	**21888.96**	**6242208**	**11**	**13**	**4450**	**3225.3**	**960319**
4	2014-15	Kannad	14	17	3200	1405.7	4,23,550	01	01	600	57	15,960
		Paithan	158	213.5	42250	27699.75	64,83,855	35	53	9750	5549.4	15,42,370
		Phulambri	38	39	9900	5855.5	18,06,036	07	07	2750	853.1	2,53,402
		Aurangabad	03	06	300	350	1,05,000	-	-	-	-	-
		Gangapur	-	-	-	-	-	01	03	400	265	72,550
		Sillod	11	19	3600	1905.7	6,02,765	01	1.5	300	204	66704
			224	**294.5**	**59250**	**37216.65**	**9421206**	**45**	**65.5**	**13800**	**6928.5**	**19,50,986**
	Grand Total		**350**	**449.75**	**105850**	**72335.05**	**19383396**	**66**	**92.5**	**21500**	**13073**	**37,61,655**

Fig. I: Year wise number of Farmers (male and female) participated in sericulture activity from Aurangabad District

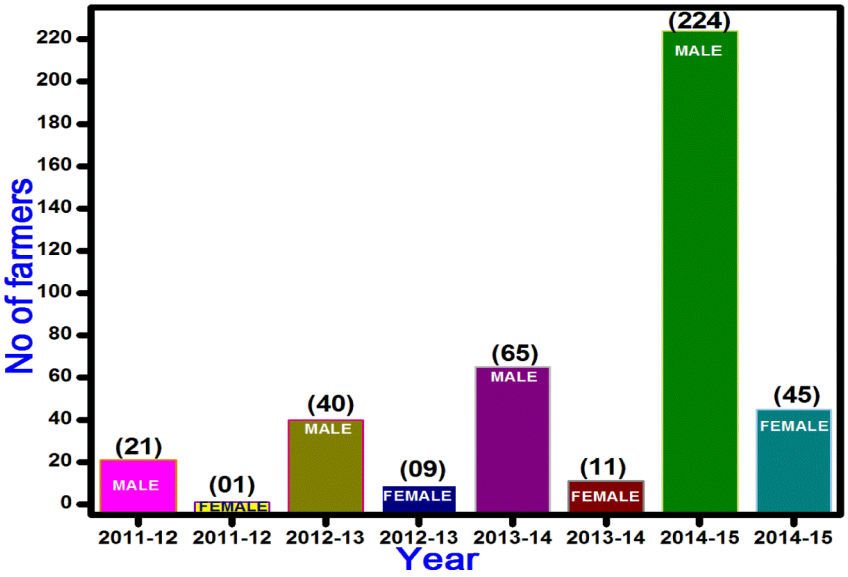


Fig. II: Year wise Mulberry area (Acres) undertaken by male and female farmers from Aurangabad District

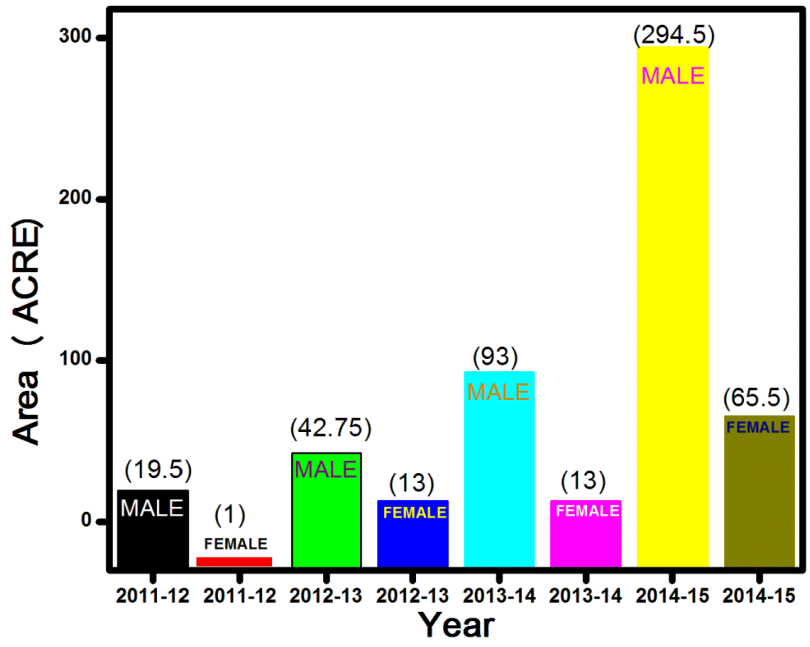


Fig. III: Year wise DFL's Utilized (No.) by male and female from Aurangabad District

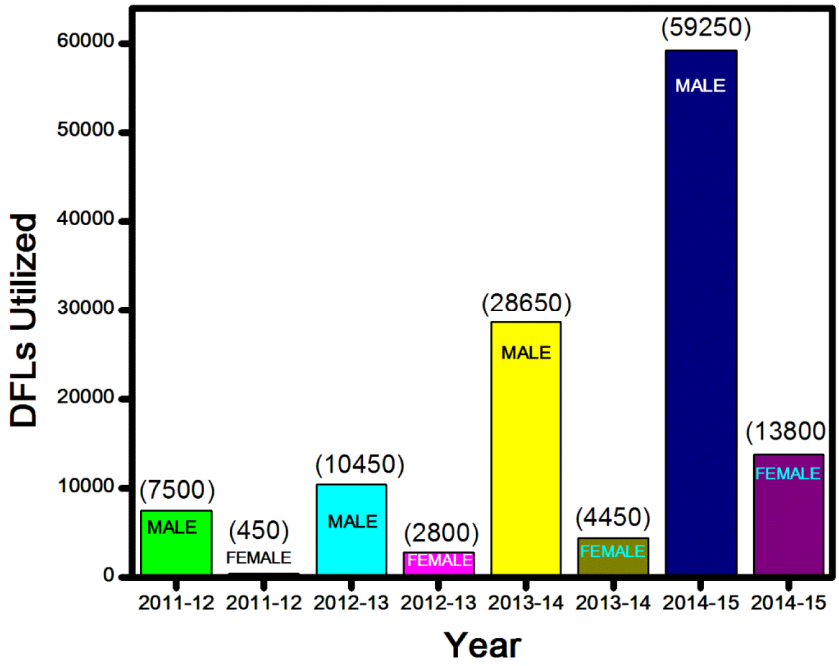


Fig. IV : Year wise Cocoon production(Kg.) doing by male and female farmer in Aurangabad district

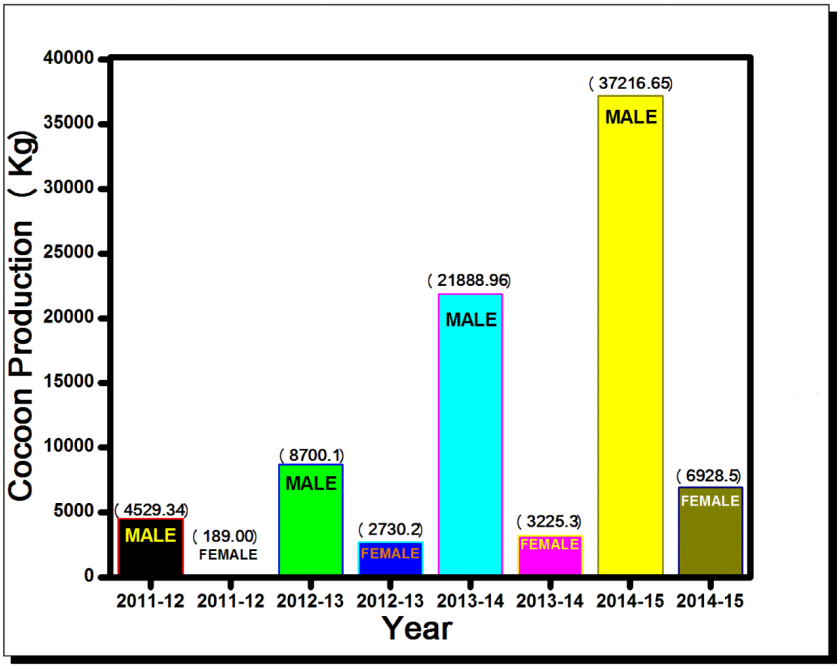
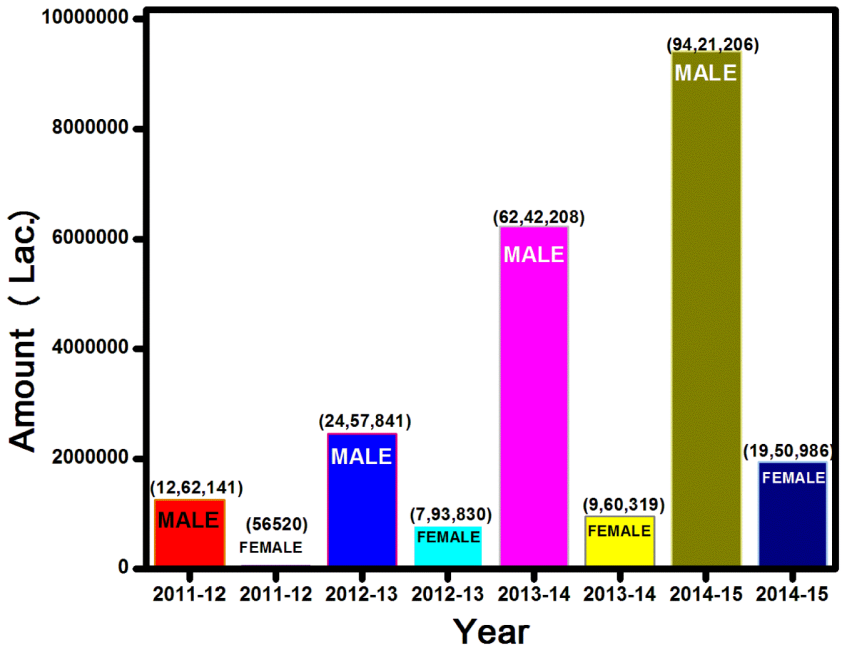


Fig. V: Year wise Amount earned (Rs.) by male and female farmers from Aurangabad District by selling cocoons



CONCLUSION

Sericulture is providing very good gainful and lucrative employment for farmers of Aurangabad district. The Sericulture is the best occupation for women's and all age persons in family in present era of changing environment. It is possible to have the rural farmer's empowerment through sericulture industry and it is necessary to promote the sericulture in all the area of Maharashtra state which will definitely help to stop the suicides and to develop the socio-economic status of farmers in society. It will also provide the assistance in maintenance of dairy and other cattle's.

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