

Economic influence on farmers in agri-business with special reference to Sericulture

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ABSTRACT

A detailed study of employment generation through sericulture activity in drought prone area where 90% of the district population subsist on agriculture is studied. It focuses mainly on the employment of farmers in the activity which can be easily performed by them besides emphasizing on the income generation through that activity and comparison of generation of employment by other crops. Suggestions for the development of sericulture in the district are also presented as the study assumes significance in the context of employment generation to women in drought prone areas where non-farm employment opportunities barely exist in the district.

Key words: Sericulture, employment, income, Agri-business, economy.

INTRODUCTION

India being one of the world's largest agrarian economies, the rural economy is composed of a large variety of economic activities and the largest that provides hub of the rural economy is agriculture. Most of the rural population lives in the belts depending on agriculture and its allied activities for their livelihood. Although commercialization in agriculture has been picking up well in recent years, many problems like land fragmentation predominance of marginal and small land holders ownership, diversified social, economical and cultural factors prevailing in rural areas and demand for higher investment in agricultural activities are forcing them to change over to minimum investment oriented cropping system in the country (Mattigatti and Iyengar, 1995; Singh *et al.*, 2003).

Sericulture being a highly remunerative enterprise plays a major role in shaping the economic destiny of the rural population and unlike other agro-based activities, it has the advantages of faster income turnover with high returns out performing many cash crops and regular employment to rural households (Ravindran *et al.*, 1993; Lakshmanan *et al.*, 1996; Kumaresan *et al.*, 2005; Savithri and Sujathamma, 2014; Prakasam and Ravi, 2014). The process of sericulture involves cultivation of mulberry garden as food-plant to feed silkworms, rearing of silkworm, production of raw silk, reeling and weaving. Sericulture activities are considered to be well for marginal and small land holder to bring about economic transformations in rural areas which prevents rural population migration and adding advantages of low capital requirement of assured remunerative return within a short period of time (Sakthivel *et al.*, 2012; Siddappaji *et al.*, 2014).

Unlike other agro-based venture, the periodical income from sericulture is one of the important features for its existence as it has advantages of faster income turn over and regular employment to rural households. On the other hand, it is also clear that some times the cost of production over run the benefits from cocoon production (Dewangan *et al.*, 2011 & 2012; Shukla, 2012; Eswarappa, 2012). In the present competitive conditions, sericulture has been competed with other agricultural cash crops. Thus, studies of economics of mulberry sericulture are not only imperative to understand the cost of production and income from a unit area but also it justify convincing the farmers on its profitability as compared to other crops in the short period of time. The present study aimed to in-depth analysis of small farm household's economic system in mulberry sericulture with special reference to identifying the changes in income and employment of farmers in sericulture in Krishnagiri district of Tamil Nadu.

MATERIALS AND METHODS

Denkanikotai, Hosur and Krishnagiri areas of Krishnagiri district in Tamil Nadu were selected for the study as these areas have more agricultural farmers trained in sericulture techniques through transfer of technology (ToT) by DoS, CSB, CSGRC and have more awareness on the sericulture activities and highest area under irrigated mulberry. The data collected include land coverage, sericulture land acres, number of sericulture crops / income per year / no. of family members involved and income from other agro-based crops.

Data base, in the research task, was collected through sample survey with 450 respondents, 150 each from selected 3 areas by following multistage random sampling design. A pre-tested schedule was deployed in collecting primary information by contacting the respondents in the concerned areas. The survey was conducted during the agricultural year of 2013-14. The methodology for data collection and information required during different schedules were analyzed statistically by using Graph pad prism-6 software and values are presented in percentage.

RESULTS

The present study, educational quality of the farmers involved in agriculture as well as sericulture was surveyed. The details of educational qualifications of the farmers are as in the Table 1 and Fig. 1.

Table 1: Educational qualification of farmers involved in Agriculture and Sericulture

	Denkanikottai (n)	Hosur (n)	Krishnagiri (n)	
Primary	38	40	70	38
High	87	84	70	87
Higher Secondary	22	20	7	22
Under Graduate	3	5	3	3
Total	150	150	150	150

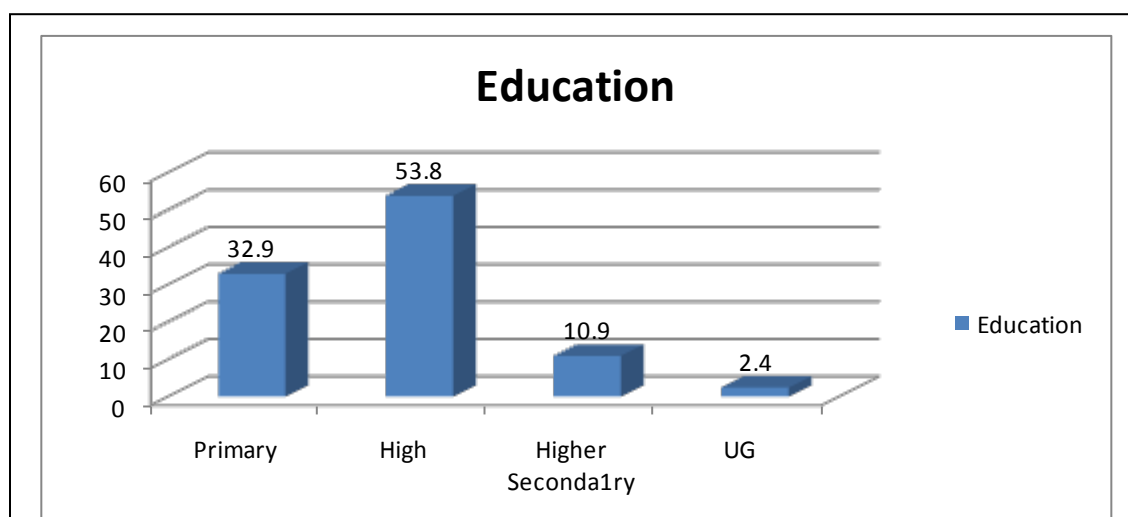


Fig1: Educational wise classification of the respondents

This data also reveal that, farmers studied High School and above have associated in sericulture due to the knowledge on sericulture activity and business table 1.

Religion and community were playing a critical role in society for selection of occupation from earlier days onwards. Most of the farmers involved in the sericulture and agriculture are Hindu's including four major community and containing 48.7, 42.7, 7.3 and 1.3% of farmers under BC, OC, MBC and SC respectively (Table 2 and Fig.2).

Table 2: Farmers under BC, OC, MBC and SC respectively

	Denkanikottai (n)	Hosur (n)	Krishnagiri (n)
Scheduled caste (SC)	1	3	2
Most economic Backward caste (MBC)	9	14	10
Backward caste (BC)	69	70	80
Other caste (OC)	71	63	58
Total	150	150	150

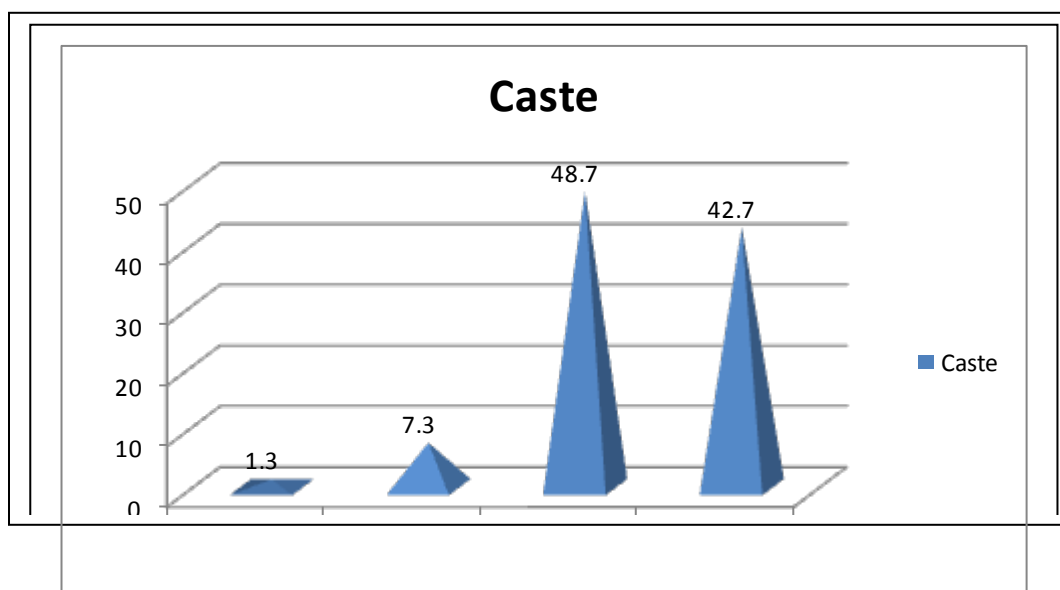


Fig 2. Farmers caste wise classification of the respondents

This study clearly shows that, the major factor affecting the socio economic conditions of the farmers is job opportunity. From the data it’s clear that the OBC farmers are highly involved in agriculture (65.5%) and sericulture (34.5%) due to non-availability of jobs (table 3 and fig3).

Table 3. Different community farmers associated with sericulture and agriculture

	Denkanikottai (n)	Hosur (n)	Krishnagiri (n)
Agric	81	52	128
Seric	26	37	17
Agriculture / Sericulture	43	61	0
Others	0	0	5
Total	150	150	150

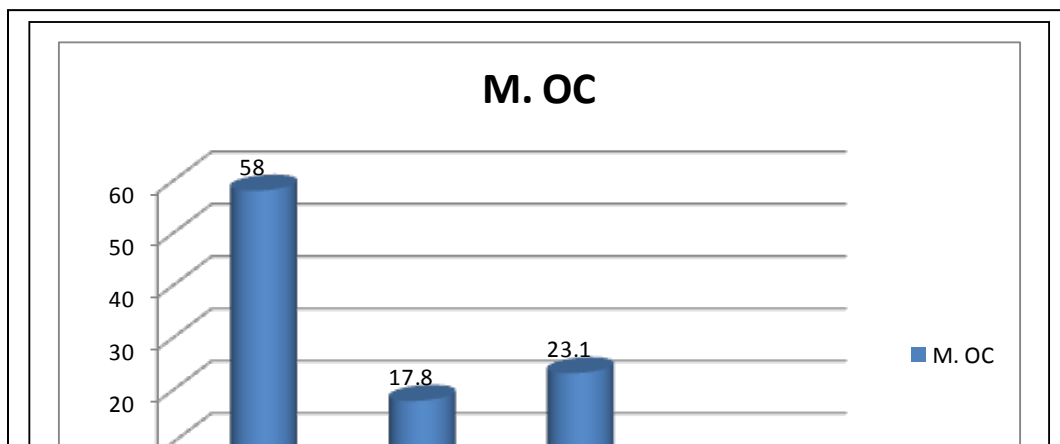


Fig 3: monthly income farmers associated with sericulture and agriculture

Table 4. Family size of farmers involved in percentage.

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Below 3 Per	78	17.3	17.3	17.3
Valid 4-5	214	47.6	47.6	64.9
6 and Above	158	35.1	35.1	100.0
Total	450	100.0	100.0	

It is also observed that the small size family holders (17.3%) (Table 4) are involved in agriculture when compared to big (47.6%) and single family holders (35.1%). Small family holders are acting as economic group when compared to high and marginal economic groups. Occurrence of more small size family farmers in Tamil Nadu state is in accordance with the findings of Singh and Vasishti (1994).

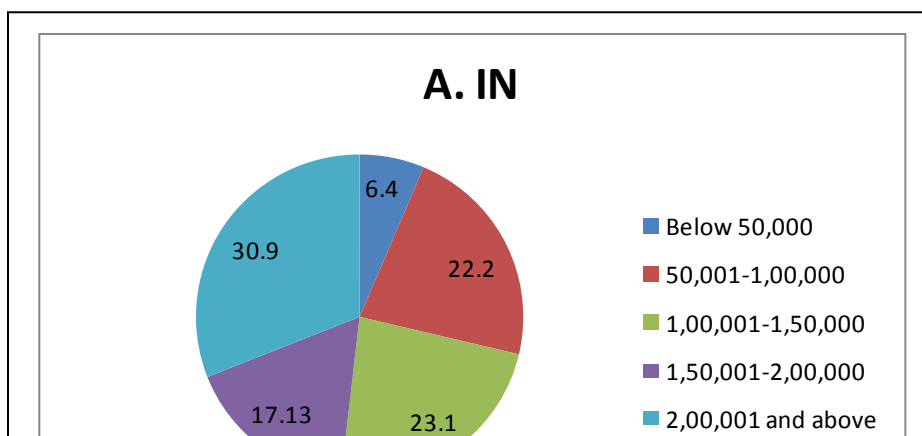


Fig. 4: Economic level of farmer’s percentage.

The study also shows that the families of farmers with predominant economic groups involved in sericulture utilize land areas to the tune of 3.5 to 9.00 acres besides investing amount starting from 50,000 to more than 2.00 lakh rupees. The details analyzed are shown in Fig. 5.

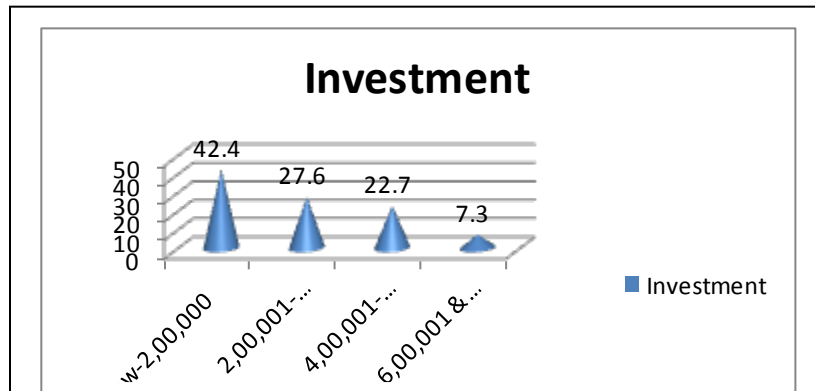


Fig 5: Total investment classification of the respondents

The results of the present study have also indicated the profit earned from sericulture crops was comparatively higher than other agricultural commercial crops. The data pertaining to the earnings of farmers involved in Sericulture is as in Fig. 6.

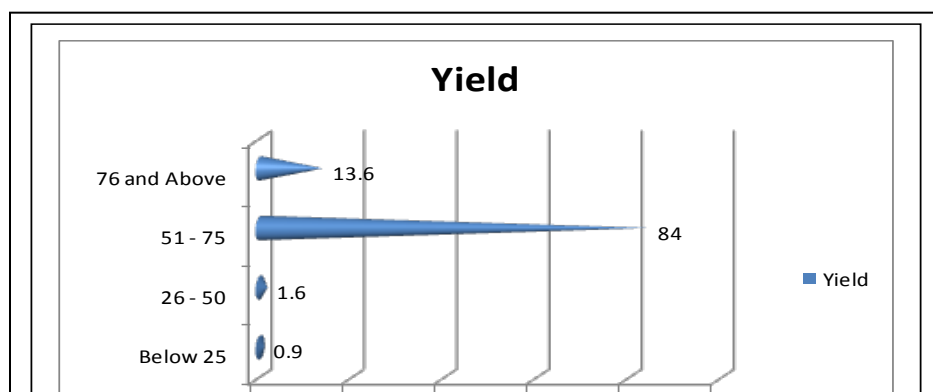


Fig. 6: Details of earnings and profit in sericulture.

This shows that sericulture has potential role in the development of farmers from three different areas of Krishnagiri district of Tamil Nadu studied which is in accordance with the criteria for sericulture farmers reported by Saktivel *et al.*, (2012).

DISCUSSION

The results of the present study conclude that, sericulture plays a vital role in boosting the income of the farmers by contributing highest net profit per hectare of land. It is also clear that the sericulture industry is an outstanding opportunity for employment with various entrepreneurial developments to farmers. The proposed studies are much helpful to identify the factors which are responsible for the decline / increase in the percentage of farmer's involvement in sericulture. The sericulture is in particular improved in between the small land holders with several government opportunities such as loan, insurance, temperature tolerant and high nutrient mulberry and silkworm varieties, etc. This can also be achieved by conducting training programs and other important steps like transfer of technologies, providing temperature tolerant and high yielding mulberry varieties, silkworm pest management through advance technologies and silk productivity to educate them in improving the awareness and income of the rural farmers involved in sericulture activities for reducing the migration in search of attractive jobs and other works for earning money.

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