

**LIVELIHOOD OPPORTUNITY FOR FARMERS THROUGH  
SERICULTURE-A SOCIO-ECONOMIC STUDY OF RUDRAPRYAG  
DIST, UTTARAKHAND, INDIA-A CASE STUDY**

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**ABSTRACT**

*Silk is environment's gift to human being and a profitable fiber of animal foundation other than wool. Being an ecological, biodegradable and profitable material; silk has supposed unique importance in current scenario. Encouragement of sericulture can help in ecosystem development as well as elevated economic returns. India is the second largest producer of raw silk. Consequently, India has incredible growth potential in the field of silk production; silk making benefits supplementary employment opportunities approx 4 million rural families. The predicted demand expansion for silk possibly will create self-employment and compensative livelihood opportunities for the the majority of disadvantaged sections of society, particularly for small and marginal farmers and the landless poor from end to end silk worm rearing, reeling of yarn, weaving of fabric, and value-addition as non-farm activities.*

**Abbreviations: Sericulture, Socio-economic importance and Livelihood**

**INTRODUCTION**

The word "Sericulture" has been originated from the word "Su" (Si) which means silk. Sericulture, the art and science of growing silkworm, food plants, rearing silkworms and making of silk is essentially an agro-industry. It is segregated in two sectors namely farm and industry. The farm sector involves growing silkworm's food plants, rearing silkworm to produce cocoons and producing eggs. Reeling, twisting, dyeing, printing, finishing, Knitting and felting form the industry sector<sup>1</sup>. Sericulture has endow with downstream employment and income generation in rural and semi-urban areas high involvement for low-income and socially under advantaged groups, a superior role for women in development and enormous

probability for contribution to sell to other countries earnings. More than 58 countries are practicing sericulture in the world. India is the only Country in the world to produce all the four known varieties of silk including Mulberry, Eri, Tasar and Muga. In India Cultivation are extended Over 22 states, covering 172000 hectares across 54000 villages operating 258000 handlooms and 29340 power looms. Sericulture is an essential part of tribal life, practiced by about 1.5 lakh tribal population in the states of Jharkhand, Chhattisgarh, Orissa, Madhya Pradesh, Uttar Pradesh, West Bengal, Bihar, Maharashtra and Andhra Pradesh (Shetty et al., 2007). In present scenario, estimated 8 million families (of these 80% are rural poor) are affianced their livelihood by silk production, as part of their livelihood. Due to suitable temperature and humidity, silk production is frequently confined to states like Uttarkhand, Uttar Pradesh, Karnataka, Andhra Pradesh, West Bengal and Jammu and Kashmir. In India, sericulture is not only a practice but also a living culture. It particularly suits rural-based farmers, entrepreneurs and artisans, as it necessitates low asset but, with potential for comparatively higher returns. It offers income and employment to the rural poor specially farmers with small land-holdings and the marginalized and weaken sections of the society. India consisting of 16% of world's population sustains only on 2.4 % of land resource. (Srivastav,2005). About 70% of the population largely depends on rain fed agriculture characterized by low productivity, un-predictive weather and calamities, degraded soil with low fertility, un-protective irrigation and degraded natural resources (Dey *et al.*, 2009). These factors aggravated the problems of deficiency, migration, unemployment, under-employment, food insecurity and undernourishment for millions of tribal people in India (Bedia,2014). Poverty is prevalent challenge in India. Poverty is a social phenomenon in which a section of society is not capable to fulfill even its basic necessities. In India [44%] and Chhattisgarh [42.5%] of the total population lives in absolute poverty. India still has the world's major number of poor people in a solitary country. Sericulture activities covered 43760 acres. The total number of Tasar center is 285(12551.93Acres), Tasar plantation under CGSP is 155 sites (10000 Acres), Tasar rearing in forest is 18827.9 Acres), Natural Raily Cocoons Area is 500 sq.kms and mulberry gardens are 117 (2380.5Acres). The total beneficiaries are 51310 in numbers out of them 32,429 are Scheduled Tribe.

The farmers are hopeful to take up non-agriculture practices, which are included with live stock culture animal husbandry, dairy, fisheries, poultry, horticulture and sericulture to

generate additional income for each house hold. In this framework sericulture is a better alternative because it is labor intensive industry and provides direct or indirect employment to about 7 million people in India. It requires small expenditure and offers high profit. It also provides standard income to farmers all through the year contrasting most other agricultural crops. It plays a fundamental role in the flow of income from the urban rich sections of the society to the rural poor<sup>5</sup>. Sericulture is a potential sector of the agriculture to raise economic status of the farming community and also earning foreign revenue (Thapa and Ghimire 2005).

### **INDIAN SCENARIO**

In India among the four varieties of silk produced in 2015-16, Mulberry accounted for 71.79% (20,478 MT), Tasar 9.88% (2,819 MT), Eri 17.74% (5,060 MT) and Muga 0.58% (166 MT) of the total raw silk production of 28523 MT. Production of raw silk in India during the year 2016-17 (April to November- 2016) was 20,582 MT, in which, mulberry and Vanya raw silk output amounts were 13,865 MT and 6,717 MT, respectively(CSB,GOI).In India approximately 6 lakhs peoples adopted sericulture as a main occupation. On year around approximately 11 people gains their livelihood by means of per kilograms of row silk. Owing to this distinctive nature, the Indian planners have acknowledged sericulture as one of the best-suited occupations for supreme growth and development of rural India. Mulberry sericulture has been conventional livelihood in Karnataka, Tamil Nadu, A.P. and Kashmir; Tasar one, in M.P., Chota Nagpur Division and Orissa; Muga one, in Assam, Nagaland, Tripura and Eri one in Assam and West Bengal. There are all four varieties of silk are produced by only north eastern part of India.

Central and State level Government Silk Departments are enthusiastically engaged in addressing the purpose of endorsement of sericulture in traditional as well as non-traditional regions. With the initiation of enormous developmental schemes, it is expected to increase sericulture related activities in the country, for doubling-up the employment opportunities in phased approach, and in that way, it may establish to convey a soothing fondle to the burning difficulty of acute unemployment in rural India and therefore can make sure the rural migration to urban areas to a certain extent. Sericulture involves inter-reliant rural, semi-urban and urban-based activities in which approximated participation of women is about 60%. Therefore, in distinction to any other agro-based profession the role of women in sericulture industry is dominating which will be cooperative for improving the status of

women in family enterprises. In the luminosity of women welfare through Sericulture industry, the **Central Silk Board**, a statutory organization, under the Ministry of Textiles, Government of India has established a individual section of support to Women and NGO's' into the National Sericulture Project.

### **AIMS AND OBJECTIVES:**

Present Study concentrated at some villages of Rudraprayag district of Uttarakhand. This study revealed about the identification of the areas where the local farmers have been benefited from the adaptation of sericulture practices for their livelihood. Since how long this population is practicing sericulture. What is the number of farmers are involved in this practices. By preparing a questionnaire, data on different elements of sericulture practices and aspects of economy in terms of their economic growth will be collected as a primary data. Secondary data will be collected from the various reports, magazines and publications, from central and state agencies working on sericulture practices. Finally an evaluation on the breaking of poverty through sericulture among the tribe at study area will be assessed by using standard method of statistics and economics.

### **MATERIAL AND METHODS**

The present survey was carried out in Rudraprayag dist. of Uttarakhand, was purposely selected for the study, and based on potentiality and production of tasar/Eri cocoons, where both types of sericulture – Eri and tasar are being practiced. In the above mention district some villages were selected at random and to collect the data related to oak tasar practices some private rearers were selected randomly and interviewed. Rearing practices of *tasar silk worm* by different farmers in different villages of the study area were also taken into consideration and had a positive interaction with the farmers about the sericulture practices. These farmers reared higher number of tasar silk worm in different seasons and earn their livelihood.

### **RESULTS AND DISCUSSION**

During the first year of survey (2014) it was found that the maximum number of oak tasar worms were reared by Mr. Satte Singh in the spring crop, while minimum number of worm were reared by Mr. Pancham Singh in Rudrapryag district, however in Uttarkashi district maximum and minimum number of worm reared by Mr. Virendra Singh Rana and Mr.

Ravindra Singh respectively. In autumn crop of 2014 maximum number of oak tasar silk worm 30000 were reared by Mr. Kuwar Singh, while Ms. Gayatri Devi reared minimum number of oak tasar silk worm. A total of 255000 number of worm in spring season and 160000 number of worm in autumn season were reared by different farmers in both the districts.

During the interview conducted in the year 2015, it was found that the maximum number (60000) of oak tasar silk worm were reared by Mr. Satte Singh in the spring crop and minimum number of worm reared by Mr. Pancham Singh in Rudrapryag district, whereas in Uttarkashi district the maximum number of worm were reared by Mr. Virendra Singh Rana. In autumn crop of 2015 maximum number of worm were reared by Mr. Satte Singh and minimum number of worm were reared by Ms. Gayatri Devi in Rudrapryag district, whereas in Uttarkashi district maximum number of worm were reared by Mr. Virendra Singh Rana and minimum number of worm reared by Mr. Ravindra Singh. A total of 275000 number of worm in spring season and 160000 number of worm in autumn season reared by different farmers in both the districts.

The work is undemanding and can be done without any cost. Sericulture can serve better for the supplementary income generation and lay concrete on the way for the local employment generation. All occupiers have examination that sericulture has not affected their traditional occupation, and their economic status is altered and deprived of any migration or dislodgment caused. The change in yearly income is reported app. two times which is good in amount.

All the workers attributed the following awareness by Sericulture: Conservation of environment, reduced cutting and felling of trees, Interstate migration is checked, Local employment is generated, served as additional income generating source, Regular savings habit has been developed, Reduction of human pressure on the forest.

Sericulture is on the whole an agro-based industry. It is separated in two sectors namely farm and industry (Prakash, B., 2005). Sericulture broadly comprises inter-linked activities for example food plant cultivation, maintenance to feed the silkworms, silkworm rearing to fabricate the silk cocoons, reeling the cocoons for unwinding the silk filament, yarn making, weaving and processing of fabric (Tripathi and Gurjar, 2016). Seidavi et al., 2008 estimated that there are 10 million silkworm rearers and 0.5 million related industrial workers in the world. Asia is the leading producer of silk in the world constituting 95% of the total global

output. There are 58 countries on the world map of silk; bulk of it is produced in China and India, afterward Japan, Brazil and Korea (Nagaraju, 2008). Sericulture in India is a moderately organized activity and is largely rural based and labor intensive. Cultivation is extend over 22 States, covering 172000 hect. Across 54000 villages operating 258000 handlooms and 29340 power looms (Dewangan et al., 2010,2011,2013) Sericulture play very effectual role in the utilization of the natural resources in a most successful manner for socio-economic up-liftmen with livelihood, employment and income generation (Malik et al., 2008)

## **CONCLUSION**

In a nutshell sericulture is the source of supplementary income generation. Sericulture provides more than 50% employment to the occupiers in a year consequently stops the inter-state relocation. According to the MNREGA (Mahatma Gandhi National Rural Employment Guaranty Programme) inhabitants have to entertain 100 days employment in a year where as sericulture provides 151-200 days employment to un-employed i.e., 64%. Majority of the employers involved in sericulture were practicing agriculture previous to adopting the sericulture but later on more than 80% employers are doing rearing practices. Due to enhancement of sericulture practices employers were earned just about double income than previous income. Tasar culture is helpful for saving 3190 host plant by each worker doing sericulture practice. It is remarkable that adopting the Sericulture by tribal they conserve the environment by non-cutting and felling of trees ever since sericulture is now their approach of life (Dewangan 2010). Inter-state migration is reduced because sericulture provides additional income at their right of entry. Standard savings habit has been enhanced and encouraged by sericulture practices amongst the tribes because they earn a great deal more than their standard of living. It is astonishing that sericulture is well-matched the life style of tribe because performing of sericulture is straightforward and can be done with no any cost and skill.

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