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RESEARCH ARTICLE

**BREAKING OF POVERTY THROUGH SERICULTURE AND ITS VALUE ADDED PRODUCTS OF COCOON BY UTILIZATION AMONG THE TRIBE-A SOCIOECONOMIC STUDY OF EAST GODAVARI DISTRICT, ANDHRA PRADESH, INDIA**

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**ABSTRACT**

The present strategy of rural development in India mainly focuses on poverty alleviation, better livelihood opportunities, provision of basic amenities and infrastructure facilities through innovative programmes of wage and self-employment. In this context sericulture is a better option because it is an agro based economic activity which provides immense scope for self-employment. It provides direct or indirect employment to about 7 million people in India. Andhra Pradesh endowed with 37,000 ha under mulberry crop and occupies 2nd position in the country in production of silk. The study area has about 315 acres under mulberry cultivation. The total beneficiaries are 5600 out of them 4100 are tribal in the district. In the district 45 per cent beneficiaries out of 100 adopted the sericulture as main occupation and rest 55 per cent as secondary occupation. The total monthly income obtained from all sources to the families involved in sericulture occupation is average Rs. 4500/- The total monthly expenditure is about Rs. 2550/-. Hence migration of people from rural to urban areas in search of jobs can be minimized. In view of the significance of the sericulture industry in providing entrepreneurial opportunities in the production process of silk and silk fabric and its value addition by the utilization of cocoons, an attempt was made to discuss the socio-economic study in the industry.

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**INTRODUCTION**

The word "Sericulture" has been derived from the word "Su" (Si) which means silk. Sericulture, the art and science of growing silkworm, food plants, rearing silkworms and production of silk is basically an agro-industry. It is divided 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 (Srivastav, 2005). Sericulture has provide downstream employment and income generation in rural and semi-urban areas high participation for low-income and socially under privileged groups, a larger role for women in development and huge potential for contribution to export earnings (Baskar, 2005). There are more than 58 countries 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 is spread Over 22 states. Covering 1,72,000 hectares across 54,000 villages operating 2,58,000 handlooms and 29,340 power looms (Dewangan, 2010).

In India, sericulture is not only a tradition but also a living culture. It particularly suits rural-based farmers, entrepreneurs and artisans, as it requires low investment but, with potential for relatively higher returns. It provides income and employment to the rural poor especially farmers with small land-holdings and the marginalized and weaker sections of the society. Poverty is biggest challenge in India. Poverty is a social phenomenon in which a section of society is unable to fulfill even its basic necessities. India still has the world's largest number of poor people in a single country. Solution of rural poverty and unemployment can come from land and water based jobs, which even today employ six times.

Indian economy reportedly suffers from high incidence of rural poverty unemployment and underemployment. The farmers are encouraged to take up non-agriculture practices which are integrated with live stock culture animal husbandry, dairy, fisheries, poultry, horticulture and sericulture to generate more income for each house hold.

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In this context sericulture is a better option because it is labour intensive industry and provides direct or indirect employment to about 7 million people in India. It requires low investment and offers high profit. It also provides regular income to farmers throughout the year unlike most other agricultural crops. It plays a vital role in the flow of income from the urban rich sections of the society to the rural poor (Saratchandra, 2005). Silk fibers can be used for making bioactive textiles due to their anti-bacterial activity (Koundinya and Thangavelu, 2005). The fibroin and sericin, the highly promising silk proteins with potential as biomaterial for tissue regeneration, (burn patches hounding), bio-adhesive and ultra violet resistant uses (Dandin and Kumar, 2007; Kumaresan *et al.*, 2007).

## AIM AND OBJECTIVES

The study was concentrated at the Rampachodavaram mandal division of East Godavari district. This will include Identification of the areas where the tribal populations have been directed to adopt sericulture practices for their livelihood.

## MATERIALS AND METHODS

The present investigation was carried out in Rampachodavaram mandal division of East Godavari district, Andhra Pradesh state, was purposely selected for the study, and based on Potentiality and production of mulberry cocoons, where mulberry cultivation is being practiced. Mulberry sericulture is a traditional and exclusive craft of the tribal of study area based on availability of resources and is being practiced from last four years i.e. 2011 onwards. The study area has about 315 acres under mulberry cultivation though effective area is 105 acres only. Mulberry gardens are 24 in number. Mulberry reeling unit 1 in number. The total beneficiaries are 5600 out of them 4100 are tribal in the district. Initially the list of sericulture villages and the names of beneficiaries were obtained from local sericulture department of Rampachodavaram mandal division, The primary data was collected from the sampled respondents following the personal interview method using structured interview schedule standardized.

In the above mention block four villages were selected at random and in each village 25 beneficiaries were selected at random for collection of data. Thus 100 beneficiaries were selected from block. The farmers were post classified into main and additional based on the engagement of employment. The information sought from the respondents involved in sericulture activities consisted of three types. The first type pertained to general information. The second type was related to Occupational Status, Employment days in a year, Total Monthly Income, Total Expenditure, Occupation before the Sericulture, Duration of Sericulture Work, Main Occupation related to Sericulture, Average Annual Income from the Old Occupation, Crops take in a year, Cocoon produced in each crop, Profit from each crop, Yearly production of cocoons, Average Annual Income. The third type of information pertained to the Losses in Sericulture, Compensation by Government, Loan according to requirement, Attachment with Sericulture, Sericulture is favourable or not, Traditional Business is affected or not, Total labour period, Change in

economic status, Change in Annual Income through Sericulture, Displacement by Sericulture, Impact of Sericulture in Life Style and economics of silk production. Primary and secondary data was analyzed using various statistical tools viz., mean, mode and median.

## Cocoons-Value addition

Uses of mulberry silk cocoon to make value added non-textile products is based on regenerated the secondary products by exploring various secondary data resources such as pierce mulberry cocoons, inferior quality cocoons and their waste. Handicraft sector occupies a prime objective in Indian economy the eye catching art of cocoon craft is one of the very interesting utility of by-products which will give scope to develop human skills in addition to generate self employment and revenue.

## RESULTS AND DISCUSSION

### Employment from Sericulture

In the study area only 1 beneficiary out of 100 adopted the sericulture as main occupation and rest 99 as secondary. The number of working members on an average in 8 families is only 01 and the same way in 41 families is 02, In 21 families is 03, in 18 families 04 and in 12 families 05.

### Man Days in a Year

Out of 100 samples in study area 25 per cent received employment for duration of 100-150 days and 71 per cent for 151-200 days and 23 per cent of 201-300 and 1% for more than 300 days.

### Average monthly income

The total monthly income obtained from all sources to the families involved in sericulture and its value addition occupation is average Rs. 5500/-. The total monthly expenditure from all sources to the families is about Rs. 2550/-. Only 09 respondents are in debt. Prior to starting sericulture occupation well over 6% of the total people were involved in agriculture and 81% in agricultural labour. Only 13% are reported rearing silkworm and agriculture simultaneously. Now 104 men and 97 women are involved in this silkworm rearing, agriculture and silkworm rearing, plantation and silkworm rearing and labour. Before having sericulture occupation, the economic condition of all respondent was bad.

This occupation is not new but the way of culturing the worms was new to the tribes in the study area because they are engaged in sericulture for last 4 years only. The average annual income from the old occupation was Rs. 35,400/-. From 100 respondent 16 are take one crop in year while 81 are two, 03 are three. All respondent received disease free laying eggs (dfles) from sericulture department and they are satisfied with department. Primary host plant for silkworm rearing is in the priority of *T.arjuna*, *T.tomentosa*, *M.alba* and *S.robusta* with *Z.zuzuba*. All respondents accepted that the work of sericulture is comparatively better than other work.

### Cocoon Production and Profit

It is estimated that an averages of 7500 numbers of cocoons are produced in each crop and an average of 5960/- Rs. are gain by respondent while average yearly production is 20400 numbers and income about 17820/- Rs. respondents. 87 respondents getting losses some time in this occupation and the reasons are high temperature and humidity followed by diseases and pollution. Government did not give compensation for any crop loss (Dewangan, 2009).

### Sericulture and Social Impact

All the respondents want to attach continue with sericulture because it is suited to their lifestyle. The work is simple and can be done without any cost. Sericulture can serve better for the additional income generation and lay concrete on the way for the local employment generation. All respondents have view that sericulture has not affected their traditional business, their economic status has changed and denied for any migration or displacement caused. The change in annual income is reported approximately double which is good in amount. The value addition in post cocoon sectors is estimated to low investment and high income value added by products ranging from 10 to 25% in total returns. Different articles like garlands, flower vase, wreath, pen stand, dolls, jewellery, wall hangings, wall plates, clocks, bouquets and greeting cards are being prepared using the waste silk cocoons (Vathsala, 1997).

### Conclusion

Sericulture is the source of additional income generation. The average annual income from the sericulture occupation were estimated as Rs. 66,000/-. Due to this practices respondent were earned around double income than earlier income. This piece of micro level study has validated that the tribal's have been immensely benefited through additional income by adopting this profession as compared to their traditional occupation.

This occupation has stimulated habit of saving, microenterprise; reduction in seasonal out-migration, improvement in living conditions among a section of tribal families adopted this occupation. The useful conversion of by-products through indigenously available processing techniques brings additional income lead to socio-economic advantage of rural people. The practice of art craft, making garlands, flower vase, wreath, pen stand, dolls, jewelers, wall hangings, clocks, bouquets and greeting cards can be carved using silk wastes the silk based paper is used to craft flowers, buffet lamps and decorate plastics, steel and fabrics. The realization of value addition span, application of suitable technology and optimization of utilizing by-products of mulberry silkworm cocoons by all the stake holders is the integrated want of silk industry.

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