

# IMPACT ON DEVELOPMENT SERICULTURE ACTIVITIES TO ENHANCE SILK IN PUNJAB”

DR Shashi Kanta  
S.S.M.College ,Dinanagar

## Abstract

Sericulture is one of the most important cottage industries in India. But still not sufficient research has been conducted in India for development and evaluation of sericulture activities. Sericulture is a short gestated and labor intensive cottage industry which can be helpful to remove poverty in the rural areas. Times to time new Sericulture activities are developing. Punjab initiated to strengthen the already existing setup and to promote the sericulture activities in the rural areas. This project envisaged distribution of silk seed packets at subsidized cost, give training to jobless and marginalized income rural people to engage them in the silkworm rearing practices as earning source. Mulberry nurseries were also raised at the project area locations on the state lands to provide mulberry leaves to the silk rearing for farmers at a nominal cost. A well structured Questionnaire was designed to collect data randomly from some selected households where people doing this silkworm rearing. Data was collected as survey plan. The data analyzed by using Statistical Package of Social Sciences and conclusion and recommendations were drawn. The relationship among these variables was studied using appropriate statistical techniques. The paper is related to results of these Questionnaires and also give recommendation for enhance sericulture production.

Key words: Socio-economic development, Sericulture, Punjab, Impact Evaluation, and questionnaire.

## Introduction

Sericulture is one of the most important cottage industries in India. But still not sufficient research has been conducted in India for development and evaluation of sericulture activities. Even there are not full fledge sericulture research center established in all states of India for the production of better quality of silk and maximum silk product. Silk seed produce diseases free cocoon to generate high volume and high quality of silk.

This paper is focus to enhance the production of best quality cocoons and a high yielding cocoon crop. This study would be useful for future breeding programs and commercial rising of sericulture activities in Punjab. For this purpose a development project was initiated by Sericulture department of Punjab. Punjab Govt. took many initiative to strength the activities of sericulture and its culture activities in the Punjab to improve the socio-economic conditions of rural people and increase production of silk at national level. In Punjab, sericulture industry has limited growth mainly due to poor quality of mulberry leaves and silk seed. Sericulture industries depend upon Mulberry leaves because it is main food of silkworm in Punjab. Thus the cultivation of mulberry is one of the most important factor in the production of silkworm eggs, rearing of silkworm cocoons . The main idea of this paper is to increase the production of best cocoons in quality and quantity for a high yielding cocoon crop and formation of high quality cocoon crop. Availability of silkworms cocoon and mulberries is related to climate and ecological conditions such as rainfall, temperature, relative Humidity, soil quality, etc. He worked for the evaluation of genetic potential of inbred pure lines of silkworm for breeding and cocoon production . The large genetic variability concerning mulberries as well as silkworms opens up many possibilities for breeding and selection. Punjab has, in some area very favorable climate for rearing of Sericulture. One experiment done by the dept. of sericulture ,as per their

report , they concluded that the project increased the income of bivoltine sericulture and mori culture activities e.g. Herbal medicine, fodder for cattle, for soil preservation. Sericulture development provides opportunities to improve the living standards of people in the rural area in developing countries. In Punjab, sericulture industry also work on this pattern to increase growth due to poor quality of mulberry leaves and silk seed. Sericulture industries depend upon Mulberry leaves because it is main food of silkworm in Punjab. Thus the cultivation of mulberry is one of the most important factor in the production of silkworm eggs, rearing of silkworm cocoons . The main idea of this paper is to increase the production of best cocoons in quality and quantity for a high yielding cocoon crop and formation of high quality cocoon crop. On this way enhance upgrade social economic status of people of Punjab. The information yield in this study would be useful for design future breeding programs and commercial rising of sericulture activities in Punjab. Further the data analyzed by using the evaluation index method each breed was maintained in three replications. Despite of these efforts success was not attained in sericulture and mori culture activities in Punjab. For this purpose a development project was initiated by Sericulture department, to strength the activities of sericulture in the province to change the socio-economic conditions of rural area people. It was also tried to know through instrument (questionnaire) how much sericulture has developed in Punjab after this intervention and why previous efforts in this regards were not fruitful? Evaluation team was also supposed to know about the pros and cons of sericulture activities in Punjab due to which this idea has not been successful in Punjab; however, it is fairly working in other countries of similar topography, culture and climate.

## MATERIALS AND METHODS

Keeping in view the importance of the project’s impact, the questionnaire has given to selected families for survey for following points. To measure the impact of the project activities Total sample of 1000 questionnaire were filled from the people from selected

district Pathankot and displays the distribution of data collection through questionnaire in selected districts. Which is proportionally based on the number of beneficiaries in each district shown in table?

Table: Indicators of Impact Assessment

| Impact Indicators                                 | Description  |
|---|--|
| 1. Age & Gender                                   | %age of Male or Female, age of person  |
| 2. Education                                      | Education level  |
| 3. Motivation for silk rearing Rearing activities | reason is to in involved in silk   |
| 4. Experience of silk rearing                     | how many years are involved in silk rearing?                                 |
| 5. Level of Income                                | families' income   |
| 6. Availability of Silk Seed                      | Satisfaction of beneficiaries in availability to silk seeds                  |
| 7. Quality of Silk seed                           | Satisfaction of beneficiaries on the quality of silk seeds                   |
| 8. Availability of food (Mulberry Leaves)         | Satisfaction of beneficiaries in availability of food (Mulberry Leaves)      |
| 9. Training & Quality of Training silk rearing    | No. of and quality of the trainings provided to the farmers for silk rearing |
| 10. Production & Quality of Production            | Production (quality and quantity) of cocoons by villagers                    |
| 11. Income Generated through Sericulture          | Level of income generation through sericulture activities.                   |
| 12. Use of Income Generated Through               | According to need on which income utilize.                                   |

This statistical study was carried out to collect data from the sericulture farmers involved in silkworm rearing district of Punjab Pathankot. This Random Questionnaire Sampling was used to the selected households in Pathankot district of the Punjab. Total sample of 1000 Questionnaire were filled from the selected districts. The distribution of data collection through questionnaire is based on the number of beneficiaries in district.

## RESULTS AND DISCUSSION

### Data verify:

The analysis has been made based on the data obtained from beneficiaries on questionnaires filled from Pathankot districts of Punjab.

Based on the analysis, it was observed that more than 50 % sericulture farmers were women. Silk rearing activities are usually done by females for additional source and male do their jobs main earing of families. Ages of respondent were ranging from 14 to 80 years. 86 percent families that were involved in silk rearing for income generation to uplift their living. However, 14 percent had various other motivation factors such as learning and skill development, loan payments were the main factors to motivate them for silk rearing. 58 percent of the respondents were involved in silk rearing for more than five years.

Income from silkworm rearing by farmer was ranging from 6,000 to 10,000 per month. 44.6 percent of the target respondents were having income less than or equal to Rs. 6,000 per month. 30.7 percent of the respondents were having monthly income equivalent to Rs. 8,000 whereas, 24.7 percent respondents were those having monthly income Rs. 10,000 or above.

Based on the analysis, 97 percent of the farmers got the silk seeds from the Sericulture Department and 3 percent were those which were never involved in sericulture activity. Responding to the question of per kg sale of cocoon, minimum sale price of cocoon was found in survey was Rs. 160 and maximum selling price was Rs. 350.

95% were of the view that sericulture activities have a significant impact on family income, these families utilize the income generated through these activities on clearing loans, purchase of assets, education of their children, sustaining livings, marriages of their children and buying cattle's etc as shown in table 5

### Table 5

#### Earning from Sericulture:

#### Investment (for 30 days)

|                          |             |
|--------------------------|-------------|
| Cost of Silk Seed Packet | = Rs. 250   |
| Total Investment 2.40    | = Rs. 4,000 |
|                          | = Rs. 300   |

Mulberry leaves (food for worms)

Total Investment = Rs 4,650

#### Return after 30 days:

Total Investment = Rs 4,650

Production \* average selling price) = Rs. 6,380

Based on above analysis, return of sericulture activities is about 37% higher than its investment.

This inferential analysis was developed on the basis of prior knowledge .association of factors involved in sericulture activities e.g. education of farmers, income of the households/farmers, training of farmers from Sericulture Department and production level of Cocoon.

The null hypotheses (Ho) using  $p \leq 0.10$  was determined as under:

- There exists a positive association between education of the farmer and production level of Cocoon;
- There exist a positive association between the education and income of the farmer; and
- There exist a positive association between training of the farmer from Sericulture Department and production level of Cocoon. The alternate hypothesis H1 was assumed that there does not exist any association between these factors. The parameters were tested using a well known non-parametric chi-square test statistics.

#### REFERENCE

1. Kusnaman, D., (2004): Development Planning and Project Cycle analysis for Sericulture in Central Java, PhD thesis.Landwirtschaftlich-GärtnerischenFakultät, 45-56, (2004).
2. Hussain, M., Khan, S.A. and Aslam, M., (2010): Evaluation of genetic potential of inbred pure lines of silkworm for breeding and cocoon production in Pakistan, African Journal of Food Science, 4(5),300–302 .
3. Singh K.K, Pande A.B and Tiwari D.K (2006): Study on Prospects of promoting of multiple Silkworm Rearing Crops in Mandi District of Himachal Pradesh. Proceedings of Seminar Prospects and Problems of sericulture as an Economic Enterprise in North West India 257-263.
- 4.Hamaoka, M.,(2012) Evaluation Report of Project for Strengthening Extension System for Bivoltine Sericulture in India, Project Foundation for Advanced Studies on International Development available on [http://www0032.jica.go.jp/en/evaluation/pdf/2009\\_0602342\\_4.pdf](http://www0032.jica.go.jp/en/evaluation/pdf/2009_0602342_4.pdf). 5 5.Mark, M.M and Henry, G.T., (2004): The Mechanisms and Outcomes of Evaluation Influence: SAGE Publications, London, Thousand Oaks and New Delhi), 10 (1), 35-57, (2004).
6. Mishra PN, Srivastava PK and Chakrabarti S (2006). Prospects and problems of sericulture as an economic enterprise in North West India, Nov.11-12, Regional Sericultural Research Station, Central Silk Board, Dehradun, India 41-57.
7. Chaudhry, S. M. and Kamal, S.(1996), Introduction to Statistical Theory(Part-II, 6th Ed.) Ilmi Kutab Kahana, Lahore, 99-101.
8. A Case Study of Projects “Development of Sericulture Activities in Punjab” Pakistan Journal of Science Vol. 65 No. 2 , 263-268.