

# Socio-Economic Problems Of Muga Silk Weavers Of Sualkuchi Silk Industry

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**Abstract:** India has a remarkable status in the Silk map of the world. After China, India is the largest producer of silk, producing about 18 percent of the total world production. It is also the second largest producer of Tassar silk after China. India produces four varieties of silk i.e. Mulberry, Eri, Tassar and Muga. Out of the four types of silks India has the monopoly of world production of golden yellow-Muga silk. Muga the golden yellow silk is the product of the silkworm *Antheraea assamensis* found only in the Brahmaputra Valley of Assam, a state in Northeast India. Muga silk is the culture of Assam which is as old as Assamese culture. Traditionally, Assam has been famous for its cottage industry specially spinning and weaving. The agro-based sericulture activities have been playing an important role in uplifting the rural economy of Assam. But it is very unfortunate that the new generation of the weavers' family were not interested to continue this culture. The weavers are also facing problems regarding wages, education, lack of modern skill, shortage of modern equipments, poor standard of living. Weavers take weaving as a part time job despite having possibilities in the industry. So a grass root level of the study about the socio-economic condition and the status of the weavers in the silk industry of Sualkuchi will help us to find out the problem faced by the weavers and the industry and also will be helpful to find out the solutions to those problems and would be possible to give proper respect and attention to the age old culture of Assam.

**Key-Words:** Socio-economic, weavers, equipments

## Introduction

It is truly the God's gift and definitely the human creation which helps to turn leaves into silk which contribute to one of the basic necessity of human being that is cloth. Not just contributing to the basic necessity, silk also contributes a lot to the economic development of a country. It could be the weapon to empower women as women played an important role in the silk production. It could be the dominant source of income for small and marginal farmers. In a labour abundant country like India, Silk could generate more employment opportunities. Silk production circulated all over Europe and Asia during the World War I. Silk is a material first introduced in Neolithic China. India has a remarkable status in the Silk map of the world. After China, India is the largest producer of silk, producing about 18 percent of the total world production. It is also the second largest producer of Tassar silk after China. India produces four varieties of silk i.e. Mulberry, Eri, Tassar and Muga. Out of the four types of silks India has the monopoly of world production of golden yellow-Muga silk. Muga the golden yellow silk is the product of the silkworm *Antheraea assamensis* found only in the Brahmaputra Valley of Assam, a state in Northeast India. The *Antheraea assamensis* is cultivate especially in Brahmaputra Valley because its characteristic ecological requirements are found only in its natural home. Muga silk is the culture of Assam which is as old as Assamese culture. Traditionally, Assam has been famous for its cottage industry specially spinning and weaving. The agro-based sericulture activities have been playing an important role in uplifting the rural economy of Assam. The silk of Assam annexed a special place in the sericulture map of the world. Assam silk industry now centred in Sualkuchi, which is a labour-intensive industry. Muga silk industry of Assam is closely related to the socio-economic and cultural life of the people of the state. During the days of Ahom regime (1228-1826), reeling and weaving activities were popularised and became an indispensable profession of every Assamese household. According to the tradition of Assam, the primary qualification for young girl for marriage was the weaving silk. This probably could be the reason why Assam has largest concentration of handlooms weavers in India.

## Selection of the Study:

Importance of Sericulture sector in the economic development of the country is increasing. India is known for producing good quality silk. India is the only country in the World producing the Muga silk. North Eastern states of the country are home to the Muga silk. Assam is the major Muga silk producing states of the country. Sualkuchi is the centre where Muga silk production is practices from the time immemorial. Weaving is closely connected with the culture and traditions of Assam. From ancient times handloom was using in the production process and generation wise the people of Sualkuchi were getting the weaving skill. Weaving is in the blood of the people of Sualkuchi. Modern technology, good infrastructure, adequate investment is needed to increase the production of the Muga silk. As Muga is available only in India therefore the country could make available the product of Muga silk in the International market and can increase import earning. Socio economic conditions of the weavers should also be taken care of for the proper development of the sector. As the weavers is the centre point of the sector. The raw Muga silk production in Assam has increased from 117 MT in the year 2010-11 to 142 MT in the year 2015-16. But the sector still could not get its proper market value. Somewhere the reason is the use of traditional technology and design. Proper skill development training for the weavers is needed. Combination of modern technology and design with the traditional knowledge of the weavers could help the sector to reach a height.

## Significance of the Study:

Since ancient times, Assam is well known for the production of good quality silk. Assam produces all the four types of silk and is the major producer of Muga silk. Silk industry creates employment opportunities in all the stages e.g. cultivating, rearing, reeling and weaving. The contribution of the silk industry to the socio-economic life of the people of Assam is significant. From economic point of view also, silk industry is very important. The silk industry is also helpful in maintaining environmental degradation by increasing areas of green covers, as the industry is dependent on various plants. About 60 percent weavers in the Sualkuchi silk

industry are women. The reputation of the product of Sualkuchi silk industry totally depends on the handwork, skill and dedication of the weavers. But it is very unfortunate that the new generation of the weavers' family were not interested to continue this culture. The weavers are also facing problems regarding wages, education, lack of modern skill, shortage of modern equipments, poor standard of living. Weavers take weaving as a part time job despite having possibilities in the industry. So a grass root level of the study about the socio-economic condition and the status of the weavers in the silk industry of Sualkuchi will help us to find out the problem faced by the weavers and the industry and also will be helpful to find out the solutions to those problems and would be possible to give proper respect and attention to the age old culture of Assam.

### Objectives of the Study:

The following are the main objectives of the study:

- ✓ To study the status of silk industry of Assam.
- ✓ To study the socio-economic problems faced by the weavers in the Silk Industry.
- ✓ To compare the status of the male and female weavers in the Silk Industry.
- ✓ To suggest some solution from the findings of the study.

### Hypothesis:

Ken Black defines, "a hypothesis is a statement of what the researcher believes will be the outcome of an experiment or a study." Hypothesis of the study is socio-economic condition of male weavers is better than the female weavers. To prove this hypothesis Chi-Square test is used on three important parameters of socio-economic study that is education, occupation and income. To experiment the hypothesis a systematic procedure is needed.

Result of Chi-square Analysis:

Parameters	DF	Significance level	Critical value	Chi-square Value	Result
Education	6	5% level	12.6	13.01	Reject H <sub>0</sub>
Occupation	1	5% level	3.84	9.95	Reject H <sub>0</sub>
Income	3	5% level	7.81	8.03	Reject H <sub>0</sub>

Chi-square value is greater than critical value so we have enough reason to reject the null hypothesis and accept alternative hypothesis. Hence we conclude that the socio-economic status of male weavers is better than female weavers.

### Methodology

Both primary and secondary data was used in the study. For collecting primary data a structure questionnaire were prepared in this study and information were collected from the sample respondents These four co-operatives were Assam Samabay Resham Pratisthan Ltd. (ASRP), Sualkuchi Resham Samabay Samiti (SRSS), Bayan Sahayika Samabay Samitee Ltd. (BSSS), and Kalpataru the Assam Co-operative Silk House Ltd. (KALPATRU) spondents. There were now four active co-operative societies in the Sualkuchi. Out of the four co-operatives Assam Samabay Resham Pratisthan Ltd. is the largest one in terms of the number of weavers, so sample for the study were taken from the co-operative.

The stages of hypothesis testing are mention below:

1. Construct a hypothesis.
2. Select a level of significance.
3. Compute the standard error.
4. Compare the computed value to critical value (tabled value) and interpret the result.

Depending on the available parameters, Chi-square test is used in the study.

**Formula to calculate Chi-square value is:**

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Where, O refers to observed frequencies and E refers to expected frequencies.

Following Steps are to be followed to determine Chi-square Value:

First, expected frequency is to be calculated.

Formula to calculate expected frequency is:  $E = \frac{RT \times CT}{N}$

E=expected frequency

RT=the row total for the row containing the cell

CT=the column total for the column containing the

cell

N=the total number of observation

Second, difference between observed and expected frequencies are to be calculated and obtain the square of these differences that is (O-E)<sup>2</sup>.

Finally, divide the values of (O-E)<sup>2</sup> obtained by their respective expected frequency and obtained the value of  $\chi^2$ .

Null Hypothesis (H<sub>0</sub>): Socio-economic status of male weavers is not better than female weavers.

Alternative Hypothesis (H<sub>a</sub>): Socio-economic status of male weavers is better than female weavers.

### Collection of data

Out of the four co-operatives in Sualkuchi, Assam Samabay Resham Pratisthan Ltd. is the largest one in terms of the number of weavers, so sample for the study were taken from the co-operative. The total number of weavers of the ASRP is 550 out of which 297 were female and 253 were male. 30 percent of total 297 female (89.1) and 30 percent of total 253 male (75.9) i.e. 165 weavers were taken as sample for the study. Samples were taken by using simple random sampling method.

### Scope of Study

Various studies were conducted on the different issues of the Sualkuchi silk industry. But no such study on the socio-economic problems of Sualkuchi silk industry in gender perspectives was conducted earlier. A detail study on weavers in gender perspectives will help us to understand the real problems of the weavers. As weavers are the backbone of Sualkuchi silk industry therefore the

development of the industry is not possible without development of the weavers. Development of the Sualkuchi Silk Industry could provide a good share in the Country's GDP and also generate employment to the rural population. Therefore I felt the need to take up this subject for in depth study.

#### Limitations of the Study:

Here in the study an effort has been made to analyze the socio-economic status of Muga silk weavers of Sualkuchi. But the study is not free from limitations. The following are the main limitations of the study-

- Primary data were collected from the co-operatives having largest number of weavers. Out of total 550 weavers 165 were taken as sample. So the study is limited only to that particular co-operative.
- In the field survey it was observed that weavers were weaving not only Muga cloths. They were also weaving Eri and Tassar.
- Respondents were unlike to provide information related to their income, expenditure etc.
- Secondary data related to the study were collected from government offices. These offices have limited source of information.

The study was location specific therefore the result of the study may not be applicable to different areas but it will be helpful as a guideline for future studies.

#### Chapter scheme of The Study:

The study has been divided into six chapters-

First chapter include introduction, meaning of socio-economic problems, introduction and history of silk in India and a brief history of silk culture of Assam.

In the Second chapter selection of the study, importance of the study, scope of the study, objectives of the study, description of the study area, hypothesis, sample design, limitations of the study, collection of data will be included.

Third chapter include the literature review of the silk of Assam. Here relevant literature of silk and silk production of Assam will be included.

Fourth chapter include Socio-Economic Features Of Study Area

In chapter Fifth collected data were analyzed. Different tables, graphs, charts of related data were included. Different statistical methods and tools were used here to test the hypothesis taken earlier.

Sixth chapter include summarization of all the major findings of the study. Depending on the findings of study some recommendations and policy implications were attached in this chapter. The scope for future research discussed here.

#### Conclusions of the Study:

The study on the weavers of Sualkuchi Handloom Industry disclosed the following major findings.

1. Weaver's age plays an important role in Sualkuchi Silk Industry. It was seen that there were no weavers above the age of 65. Majority of weavers (37.57 per cent) were from the age group of 35-44 and a very minimum number of weavers (4.85 per cent) were from the age group of 55-64. A very alarming fact is that the new generations were not

getting interested in the weaving job and therefore a very less number (7.88 per cent) of weavers were from the age group of 15-24. Number of female weavers from the age group of 15-24 is more than the male weavers. Weaving is a very hard work so weavers could not continue to work above 65 and at the same weaving is not popular among the new generation therefore number of weavers reduces day by day.

2. It was observed that Hindu is the dominating religion in the weavers of Sualkuchi. Total 95.76 per cent of weavers were Hindu and very minimum (4.24 per cent) weavers were Christian. Which means weaving culture is limited in Hindu religion.
3. It was observed that cast plays an important and interesting role in Sualkuch Silk Industry. Master weavers were from General community and all other weavers were from SC, ST and OBC community. Two major communities in weaving society were SC and General. Total 40 per cent of weavers belong to SC community and 26.06 per cent weavers were from general community.
4. Regarding the occupational distribution of weavers it was found that weavers were in the weaving profession not because of choice. As they were not educated and they have no other source of income therefore they choose weaving as an income source. Very minimum number (13.33 per cent) of weavers have alternative source of income.
5. It was observed during the field survey that most of the weavers 149 (90.31 per cent) have nuclear family and 16 (9.69 per cent) weavers have joint family.
6. Concerning the size of weavers family, total 139 (84.24 per cent) weavers have 2 to 4 family member, remaining 26 (15.76 per cent) weavers have 5 to 7 family member.
7. Considering the organization of weavers it was found that there were no organizations of weavers in true sense of the term. Most of the weavers (73.33 per cent) working under Co-operatives, therefore here in the study they were considered as organized weavers and other weavers (26.67 per cent) were considered as unorganized. But there were no such organization which can take decision for the betterment of the working condition of weavers. Percentage of male weavers (80.26 percent) working under Co-operatives were high compare to the female weavers (67.42 per cent) as because the work shed of Co-operatives is far from the residence of weavers and most of the female weavers prefer to work from home therefore they work as self weavers.
8. Regarding the product produce by the weavers of Sualkuchi it was observed that the weavers of Sualkuchi were producing varieties of product. MekhelaChadar was produced by majority (33.93 per cent) of weavers as that is the traditional dress of the state Assam therefore it demands is always high compare to the other product. Another important product is Saree produced by 23.03 per cent of weavers. Most of the weavers (29.70 per cent) were producing both Saree and Mekhela.

- Except Saree and MekhelaChadar, weavers (13.33 per cent) were also produce stall, gamusa, etc.
9. Considering the working hours, it was seen that in Sualkuchi weavers decide their own working hours even also the weavers working under Co-operatives. Most of the weavers (76.36 per cent) work for 7 to 11 hours in a day. Very minimum weavers (9.09 per cent) work for less than 7 hours a day and there were very hard working weavers (14.55 per cent) who work for more than 11 hours a day. Percentage of female (6.74 per cent) weavers working more than 11 hours is less than male weavers (23.68 per cent) as female have other household work also. Weavers of Sualkuchi are very hardworking.
  10. Distribution of weavers on the basis of days required to complete a cloth determines their productivity capacity. It was observed that most of the weavers (56.36 per cent) of Sualkuchi require 5 to 10 days to complete a cloth. Some of the weavers (38.79 per cent) were very efficient and need less than 5 days to complete a cloth except those weavers (4.85 per cent) who require more than 10 days.
  11. There is no list of holidays for the Weavers in Sualkuchi. Most of the weavers (82.42 per cent) work for all the days in a week. Minimum weavers (17.58 per cent) work for 5 to 6 days in a week. Weavers can take leave only in case of urgency.
  12. Considering the number of handloom weavers have, it was found that most of the weavers (59.39 per cent) have no loom. Remaining (40.61 per cent) weavers have looms of which 29.09 per cent of weavers have 1 to 5 looms, 7.27 per cent weavers have 6 to 10 looms and 2.42 per cent of weavers have 11 to 15 looms. Very minimum weavers (1.82 per cent) have 15 to 20 handlooms.
  13. It was observed that wage distribution of Sualkuchi weavers mostly on product basis (53.94 per cent). Very less weavers (4.24 per cent) get their wage on monthly basis. Some of the weavers (31.52 per cent) get their wage on weekly basis and the others weavers (10.30 per cent) get it on daily basis. Monthly basis wage payment is good, as it will be very easy to plan family budget accordingly and will encourage saving. On the other hand wage payment on weekly, daily or product basis leads to more expenditure as because they have in their mind that the very next day or week they will again get same amount of money so they don't plan anything.
  14. Regarding the nature of handloom, which weavers have, it was observed that most of the weavers (67.88 per cent) have rented handloom and very minimum number of weavers (32.12 per cent) have own handloom. The percentage of female weavers (77.53 per cent) who rented handloom is more than the percentage of male weavers (56.58 per cent).
  15. Income plays an important role in determining the standard of living. Most of the weavers (76.36 per cent) of Sualkuchi have less than 10000 incomes per month. The percentage of female weavers (83.15 per cent) is higher whose income is less than 10000 than the percentage of male weavers (68.42 per cent). Total 22 weavers have income more than 10001 and less than 20000. In this income range the percentage of male weavers (14.47 per cent) is higher than the percentage of female weavers (12.36 per cent). Minimum weavers (6.06 per cent) have income more than 20001 and less than 30000 and in this income range also the percentage of male weavers (9.21 per cent) is more than the percentage of female weavers (3.37 per cent).
  16. Considering the monthly family income of weavers, it was observed that most of the weavers (47.88 per cent) family income is less than 10000. Mean family income of female weavers is less (10932.58) than male weavers (16039.02). This simply indicates the lower economic status of female weavers.
  17. Regarding the monthly expenditure of weavers' family it was saw than most of the weavers (38.18 per cent) monthly family expenditure is more than 10001 but less than 15000. It was observed that most of the female weavers (50.56 per cent) family expenditure the less than 5000 and on the other hand most of the male weavers (48.68 per cent) family expenditure is above 5001.
  18. Most of the weavers (53.33 per cent) of Sualkuchi spend their whole income on consumption of goods. Some of the weavers (7.27 per cent) have taken loan so they spend on consumption plus repaying loan amount. As good number weavers were migrated therefore they (33.33 per cent) spend consumption plus paying rent of home. The percentage female weavers who pays loan (7.87 per cent), home rent (35.23 per cent) is higher in comparison to male weavers (6.58 per cent and 31.58 per cent respectively).
  19. Regarding the loan taken by weavers, it was observed that most of the weavers (63.03 per cent) have not taken any kind of loan except minimum (36.97 per cent) weavers who have taken loan.
  20. Saving habit of weavers of Sualkuchi is very bad. Most of the weavers (44.25 per cent) save nothing at all. Some of the weavers (48.48 per cent) save 25 per cent of their income and the remaining weavers (7.27 per cent) save 50 per cent of their income. Weavers saving habit are affected by their traditional way of thinking and way of wage payment.
  21. Those weavers who have taken loan maximum of them (50.82 per cent) have taken from their relatives; some of them have taken either from their friends (14.74 per cent) or from other sources (9.84 per cent). Rest of the weavers (24.59 per cent) has taken loan from banks. These behavior of weavers shows that they faith more on non-institutional source of loan which leads to more debt burden.
  22. Regarding the wage payment cut of weavers it was observed that most of the weavers (80.61 per cent) never faced any form of wage payment cut. Only one weaver reported to face very often wage payment cut. Some weavers (15.76 per cent)



- reported that sometimes they faced wage cut. Simply wage payment cut is very rare in Sualkuchi Silk Industry. Wage payment cut usually because of bad quality of products.
23. In Sualkuchi weaving is a tradition which was observed in the designs of cloths. Most of the weavers (72.12 per cent) prepare only traditional design on cloths. Very minimum weavers (3.64 per cent) prepare modern designs. Some of the weavers (24.24 per cent) were able to prepare both the designs. To create demand for the product in International market traditional design with modern touch is very necessary.
  24. It was observed during the field survey that most of the weaving work is done totally by hand. Majority of weavers (90.91 per cent) totally use by hand weaving process except a minimum weavers (9.09 per cent) who partly use machines. By hand weaving process need more time and labour to complete a cloth.
  25. Regarding the question on job satisfaction majority of weavers (60.61 per cent) reported that they were not satisfied and rests of the weavers (39.39 per cent) were satisfied with their weaving job. Job satisfaction very necessary for mental health and for quality production.
  26. Considering the reason behind weaver's job dissatisfaction it was observed that most of the weavers (33 per cent) reported there is too much physical labour in weaving. Some of the weavers (29 per cent) reported low wage, others (28 per cent) reported lack of old age pension or security as the reason behind their dissatisfaction. Very minimum weavers (10 per cent) were dissatisfied as because they want to be an entrepreneur weaver.
  27. Regarding the items hold by the weavers, it was observed that most of the weavers (37.58 per cent) have only mobile and television. Some of the weavers (18.18 per cent) only mobile and others (16.36 per cent) have mobile, computer and bicycle/motor cycle some others have (13.33 per cent) have refrigerator, mobile and television. Total 24 weavers (14.55 per cent) have all the mentioned items. Mobile is the common item which all the weavers have.
  28. In Sualkuchi weavers came from other districts in search of weaving job. Therefore considering the residence of weavers it was saw that some of the weavers (32.73 per cent) were live in rented house and most of the weavers (67.27 per cent) were live in their own house. Live in rented house increase the expenditure of weavers. Most of the weavers (52.12 per cent) were live in house made of tin. Some of the weavers (26.67 per cent) used to live in house made of slab and others (21.21 per cent) were in mud house.
  29. Gender discrimination is the term weavers were not concern about as because the society is male dominating so they never recognize the importance of equality. Majority of weavers (51.52 per cent) reported that sometimes they faced discrimination and some of the weavers (36.36 per cent) replied that they never face any kind of discrimination in work place. Total three weavers that were also male reported that they always saw discrimination happened with others.
  30. Economic status of Sualkuchi weavers is not so good. Most of the weavers (44.24 per cent) were BPL card holder. Some of the weavers (29.70 per cent) were APL card holder and the rest of the weavers (26.06 per cent) have no cards.
  31. Considering the diseases faced by the weavers it was observed that most of the weavers (19.39 per cent) reported to face headache and vision problem due to weaving increase. Some of the weavers (18.18 percent) reported that weaving creates back pain. Other problems faced by the weavers were chest pain (9.70 per cent weavers), headache (13.33 per cent weavers), and eye problem (12.73 per cent weavers). Very minimum weavers (4.14 per cent) faced no physical problems at all and some of the weavers (16.36 per cent) faced all the mentioned problems. It was saw that the most common physical diseases of weavers are vision problem.
  32. It was observed that most of the weavers (89.70 per cent) were using LPG as cooking fuel, very few (3.03 per cent) were using firewood and some of them were also using Kerosene (7.27 per cent). Most of the weavers were using LPG which saves their time and energy.
  33. Regarding the drinking water, it was observed that majority of weavers (42.42 per cent) collect their drinking water from well. Some of the weavers collect their drinking water from common tap (25.45 per cent) and from hand pump/bore well (27.88 per cent of weavers) also. Some weavers (4.24 per cent) collect their drinking water even from pond also. Purified water is very necessary to maintain good health. But in Sualkuchi there is lack of purified drinking water for weavers.
  34. Concerning the question of standard of living, majority of weavers (35.76 per cent) replied that after joining weaving job no changes occurred in their standard of livings and very few weavers mentioned (3.64 per cent) that notable changes occurred in their standard of living. Master weavers living standard increased but wages weavers or self weaver's condition remains the same even some weavers (25.45 per cent) standard of living deteriorated after joining weaving job.
  35. As a means of transportation to work place weavers uses bicycle and motor. But majority of weavers (55.76 per cent) go to the work place by walking. Here also time consumption and energy loss involves.
  36. Regarding lavatory used by weavers, it was observed that majorities (38.79 per cent) were using pucca and minimum (26.67 per cent) were using kacha lavatory. Some of the weavers (34.55 per cent) were using sanitary. Bad lavatory condition creates diseases.
  37. In case of intoxicants consumption, most of the weavers (67.88 per cent) consume pan and supari and some of the weavers (11.52 per cent)

consume nothing. Very minimum weavers consume alcohol (6.67 per cent) and cigarettes/gutka /bidi (6.67 per cent). Rest of the weavers (7.27 per cent) consumes all the mentioned intoxicants and all are male weavers.

38. Regarding education of weavers, it was saw that majority of weavers (32.73 per cent) were school dropout and very minimum weavers (1.21 per cent) had completed M.A that is also male weaver. Weavers left their education in the primary level due to bad economic condition and started doing job in silk industry in order to participate in family expenses.
39. Weavers of Sualkuchi have only tradition weaving knowledge. Very few of (2.42 per cent) they have joined weaving classes that are also only male weavers. Some of the weavers attended NGO workshop (4.24 per cent) and Government organized workshop (1.18 per cent). Sualkuchi weaver's has lack of vocation knowledge and training. Under skill development scheme of Government of India various workshop was organized but very few weavers attended. Weavers were not interested. Some initiative should be taken by the Government like that only trained weavers will get old age pension so then weavers will take interest on workshop or training program.
40. Out of 165 weavers, majorities (71.52 per cent) were married except minimum (25.45 per cent) weaver was unmarried. Very less number of weavers (3.03 per cent) was widow.
41. Considering the distribution of weavers on the basis of place of origin, it was observed that most of the weavers (67.27 per cent) were the native of Sualkuchi except those (32.73 per cent) weavers from other districts who came in search of weaving job.

#### Recommendations:

In the current study socio-economic problems of Muga Silk weavers were studied. Various problems faced by the weavers were discussed. It was pre-assume that the socio-economic condition of male weavers is better than female weavers which are found true. The Silk industry has the capacity to provide income to rural people. Some of the important recommendations on the basis of the present study are follows:

1. Old age pension, job security and minimum wage assurance should be given to the weavers. Weaver's pension plan scheme should be introduced by the government.
2. Weavers depend too much on non-institutional source credit. Like Kisan Credit Card scheme Government should also introduce Weavers Credit Card scheme and thereby provide credit facilities to the weavers.
3. Government should make it compulsory for the weavers to attain weaving classes by providing facilities like weavers wage will increase only if they attain weaving classes.
4. Weavers health insurance scheme should be there then only diseases which occur because of weaving can be taken care off.

5. Weaving includes too much physical labour and lots of time is required to prepare a cloth therefore technology should be developed so that some of the work could be done by machine which will save time and energy and too some extent reduces the price of the product.
6. Every year an International Muga Silk exhibition should be organized where the self weavers should be given the chance to participate. That will boost the Muga silk market.

#### REFERENCES:

##### Thesis

- [1]. Das Sandhya R. (2015): 'Socio-economic Profile of Handloom weaving community: A case study of Bargarh District' Odisha, Department of Humanities and Social Sciences, NIT Rourkela.
- [2]. Dharmiah M. (2017): 'Unorganized Labour and Human Rights with Special reference to handloom Industries in Rayalaseema Region of Andhr' Department of Human rights and Social Development, Sri Venkateswara University.
- [3]. Das Ratan (2008): 'Financing of Sericulture: A study of silk co-operative societies in Murshidabad district during 1992-93 to 2001-2001' Department of Commerce, The University of Burdwan.
- [4]. Das Manjit (2007): 'Problems and Prospects of Ericulture in Assam with special reference to Barpeta district' Department of Economics, NEHU.
- [5]. Deka Latika (2012): 'Socio-Educational study of the weavers of Sualkuchi : The Sillk Town of Assam' Department of Education, Gauhati University.
- [6]. Kamala Veni V. (2008): 'A Study on Health profile of employed women in Handloom Industry' Department of Home Science, University of Kerala.
- [7]. Mahendra Kumar K. (2013): 'An analysis of Production and Marketing of Handloom fabrics in Andhra Pradesh: a study of Prakasam District' Department of Economics, Acharya Nagarjuna University.
- [8]. Mahan Bandana (2013): 'Silk Industry in the socio economic life of the Tai Ahoms of Dhakuakhana Lakhimpur Assam' Department of Anthropology, Gauhati University.
- [9]. Naga Raju G. (2012): 'Socio-Economic conditions of Handloom weavers' Department of Commerce and business Administrative, Acharya Nagarjuna University.
- [10]. Patil Nitin Appasaheb (2001): 'Economics of Sericulture farming in Kolhapur district' Department of Economics, Shivaji University.
- [11]. Subbaiah Venkata K. (1992): 'Scio-Economic conditions of Handloom weavers in Cuddapah district of Andhra Pradesh' Department of Economics, Sri Krishnadevaraya University.
- [12]. Singh Shamsher (1993): 'Problems and prospects of growth of Sericulture in Himachal Pradesh' Department of Commerce, Himachal Pradesh University.

## Books

- [1]. Dash Narayan Satya (1995): 'Handloom Industry in India' Mittal Publications.
- [2]. Dorothy Caruso in 'Enrico Caruso his life and death' 1945, P.no-42
- [3]. Giovanni Federico (1997): 'An economic History of the Silk Industry 1830-1930' Cambridge: Cambridge University Press.
- [4]. Narasaiah Laxmi M., Krishan Thandava C. H. (1999): 'Crisis of Handloom Industry' Discovery Publishing House, New Delhi-110002.

- [13]. [www.thedailyrecords.com/2018-19-2020-21/world-famous-top-10-list/world/largest-silk-producing-countries-world](http://www.thedailyrecords.com/2018-19-2020-21/world-famous-top-10-list/world/largest-silk-producing-countries-world)
- [14]. <https://www.ancient.eu/silk/>

## Journals

- [1]. Dewangan Kumar Santosh (2017): Sericulture play key role to employment generation and Socio-economic empowerment of tribal women, International Journal of Advanced Research and Development, Vol-2, Issue-6, Page No-761-768.
- [2]. Gogoi Satarupa (2016): 'Assam Silk: Sericulture.' Research and Reviews Journal of Agriculture and allied Science, Lovely Professional University, Department of Biotechnology.
- [3]. Goswami Chandrama, Bhattacharya Manisha (2013): 'Contribution of Sericulture to Women's Income in Assam- A case study in Goalpara district of Assam, India.' International Journal of Scientific and Research Publications, Vol-3, Issue-3.
- [4]. Kasi Eswarappa (2013): 'Role of Women in Sericulture and Community Development: A study from a South Indian Village.' SAGE Open, I-II, Dol: 10, 1177/2158244013502984.
- [5]. Roy Chandan, Roy Mukherjee Sanchari, Ghosh Santanu (2017): 'A Situational analysis of women workers in Sericulture of West Bengal.' MPRA paper No-80121.
- [6]. Yaseen Syed (2013): 'Indian Sericulture Industry: Its Importance, Problems and Prospects.' Acme Intellects International Journal of research in Management, Vol-2.

## Reports

- [1]. Assam Year Book 2017
- [2]. District Census Handbook 2011
- [3]. Statistical Handbook Assam 2011
- [4]. Krishi Vigyan Kendra Kamrup

## Websites

- [1]. [www.csb.gov.in](http://www.csb.gov.in)
- [2]. [www.data.gov.in](http://www.data.gov.in)
- [3]. [www.historyofclo.com/textile-history/history-of-silk/](http://www.historyofclo.com/textile-history/history-of-silk/)
- [4]. [www.inserco.org](http://www.inserco.org)
- [5]. [www.indkosh.com](http://www.indkosh.com)
- [6]. [www.kamrup.nic.in](http://www.kamrup.nic.in)
- [7]. [www.silksheetsguide.com/mulberry-silk/](http://www.silksheetsguide.com/mulberry-silk/)
- [8]. [www.mapsofindia.com](http://www.mapsofindia.com)
- [9]. [www.worldsrichestcountries.com/top-silk-importers.html](http://www.worldsrichestcountries.com/top-silk-importers.html)
- [10]. [www.worldsrichestcountries.com/top-silk-exporters.html](http://www.worldsrichestcountries.com/top-silk-exporters.html)
- [11]. <https://en.wikiquote.org/wiki/silk>
- [12]. [www.historyofclo.com/textile-history/history-of-silk/](http://www.historyofclo.com/textile-history/history-of-silk/)