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Personal and socio-economic demographics of sericulture farmers in Dima Hasao district of Assam

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Abstract

This study delves into the socio-economic demographics that shape the lives of sericulture farmers within this region. By comprehensively exploring the socio-economic attributes, this research aims to offer a detailed portrayal of the sericulture farming community. The study revealed that majority (57%) of the respondents belonged to middle age group (36-50 years) and 94% of the respondents were female with 62% of respondents having below matriculation level of education. In case of operational land holding, majority (87%) were marginal farmers. Moreover, majority (54%) of the respondents had 16-20 years of experience in sericulture practicing ericulture 100% with majority (87%) of respondents involved in cocoon production.

Keywords: Cocoon, demographic, Dima Hasao, ericulture, marginal farmers

Introduction

Sericulture, the cultivation of silk-producing insects and the subsequent harvesting of their silk, holds a significant position in the economic and cultural fabric of Dima Hasao district of Assam, contributing to both livelihoods and traditions. Sericulture is an important means for the socio-economic development of the rural sector. It is highly labour intensive, profit oriented, low input, indoor activity that gives frequent periodicity of economic returns. It also well suits for the women folk of rural sector (Kumar *et al.*, 2020) ^[1]. There is a significant relationship exist between age, sericulture income, land holding, education and experience (Vijay and Mech, 2020) ^[2]. The socio-economic status of the farmers has been an important parameter in determining their level of technology adoption. This has been adjudged by various field studies involving parameters like caste, family form, main occupation, experience, family size, cocoon yield/100 DFLs, income, education, land holding size, mulberry under irrigation and extension support (Geetha *et al.*, 2001) ^[3]. An understanding of general characteristics of sample farmers is expected to provide a bird's eye view of the general features prevailing in the study area. This study aims to delve into the socio-economic attributes that shape the lives of sericulture farmers in Dima Hasao district. The socio-economic aspect of this study intends to unveil the demographic composition of sericulture farmers, including their age, gender distribution, educational background, and operational landholding. Furthermore, this study seeks to ascertain the economic significance that sericulture holds within the district. By probing into the farmers' experience levels in sericulture, types of sericulture practices adopted, and the primary sericulture activities pursued, we aim to unravel the multifaceted roles that sericulture plays in both sustaining livelihoods and fostering economic growth within the region.

2. Materials and Methods

The present investigation was conducted with a sample of 100 sericulture farmers from Dima Hasao district of Assam. A purposive and random sampling design was followed for selection of the respondents. Five blocks of the districts were selected purposively for the study. Again, two villages each from the blocks were selected based on farmer's availability and ease of communication. The data were collected in between the month of April, 2021 to May, 2021 by personal interview method. Frequency and percentage were the statistical techniques used for analysis and interpretation of collected data.

3. Results and Discussion

An attempt has been made in the study to analyze some of the important characteristics of the sample farmers practicing sericulture. The respondents were categorized based on each of the characteristics and frequency as well as percentage was calculated to study their distribution.

3.1 Age

The farmers of the study area were categorized into three groups based on their age viz., young (below 35 years), middle (36-50 years) and old age (above 50 years). The data presented in Table 1 and Fig. 1, shows that majority (57%) of the sericulture farmers belonged to the age group of 36-50 years, followed by 38 percent in the age group of above 51 years. The remaining 5 percent belonged to the age group of below 35 years. The findings were similar with Goswami *et al.* (2015) [4], Kumar *et al.* (2020) [1], Vijay *et al.* (2020) [5] and Priyanka *et al.* (2022) [6].

It was observed from the data that majority of the respondents belonging to the age group 36-50 years were involved in various activities of sericulture. However, it was also observed that the involvement of age group of above 51 years is comparatively higher than the age group upto 35 years as they were skillfully matured in their jobs and probably due to their ample experience.

Table 1: Frequency distribution of the sericulture farmers according to their age (n=100)

| SL. NO | Age | Frequency |
|--------|--------------------------|-----------|
| 1. | Below 35 Years (Young) | 5 |
| 2. | 36-50 Years (Middle) | 57 |
| 3. | 50 Years and above (Old) | 38 |

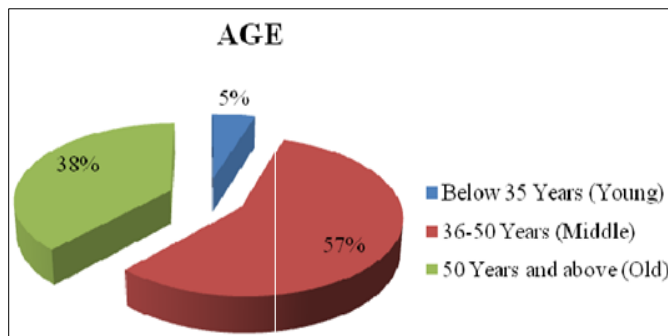


Fig 1: Percentage distribution of the sericulture farmers according to their age

Gender

The data presented in Table 2 and Fig. 2 shows that mostly women were involved in sericulture activities in the district. Raveesha *et al.* (2016) [7] revealed the dominant participation of women in sericulture activities.

Sericulture in the district was dominated by the women, carried out during their leisure time. On the other hand, men were less involved which indicates less engagement of individuals from the household. It can be said that men are engaged with other agricultural activities or other jobs.

Table 2: Frequency distribution of the sericulture farmers according to their gender (n=100)

| SL. NO | Gender | Frequency |
|--------|--------|-----------|
| 1. | Male | 6 |
| 2. | Female | 94 |

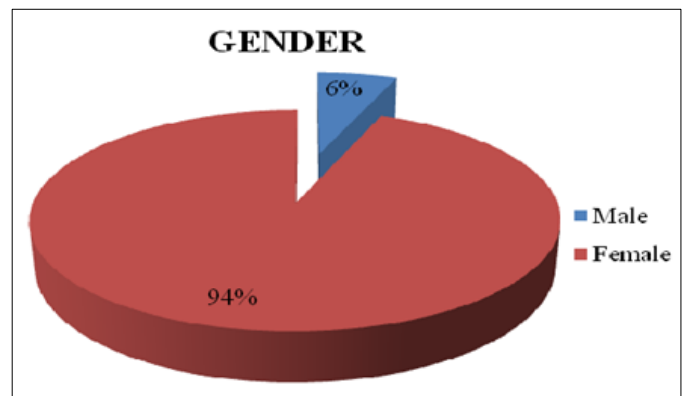


Fig 2: Percentage distribution of the sericulture farmers according to their gender

Educational level

The data pertaining to education level of the farmers are presented in Table 3 and Fig.3. Results revealed that majority of the respondents (62%) were below matriculation, 34% were illiterate, 3% matriculate, 1% had passed higher secondary. However, no respondents found to have educational qualification up to graduate or post graduate level. The current results were similar to the findings of Kumar *et al.* (2020) [1], Vijay *et al.* (2020) [5] and Priyanka *et al.* (2022) [6].

It was reported that the literacy rate of Dima Hasao district is 77.54% as per the Census 2011. In the present study it was found that majority of the respondents were below matriculation (mostly high school). It may be because they were not access to education during their childhood. There was no respondent who possessed higher education above graduate, may be because work burden of the family, insufficient financial condition and support of the family members. This indicated that even without any level of education a farmer can earn their livelihood from sericulture without much knowledge and skill because sericulture is an age old and traditional practice of the Dimasa people and it does not depends on educational level.

Table 3: Frequency distribution of the sericulture farmers of Dima Hasao district according to their educational level (n=100)

| SL. NO | Educational level | Frequency |
|--------|---------------------|-----------|
| 1. | Illiterate | 34 |
| 2. | Below matriculation | 62 |
| 3. | Matriculate | 3 |
| 4. | Higher secondary | 1 |
| 5. | Graduate | Nil |
| 6. | Post-graduate | Nil |
| 7. | PhD | Nil |

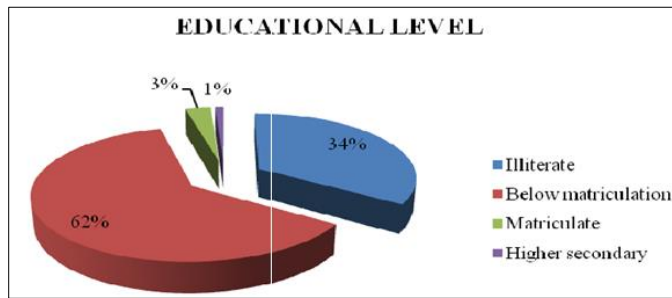


Fig 3: Percentage distribution of the sericulture farmers of Dima Hasao district according to their educational level

Size of operational land holding of the respondent

The data presented in Table 4 and Fig. 4 on size of operational land holding of the respondents inferred that majority (87%) of the respondents belonged to marginal category of operational land holding having less than 1 ha land followed by small (11%) with land holding capacity of 1 to 2 ha, and semi-medium (2%) with 2 to 4 ha operational land. There were no respondents found to be in the large size category having 4 ha and above operational land holding. The findings were similar to Hatibaruah *et al.* (2022) [8].

It is seen that most of the respondents were marginal and small category farmers having less than 1 ha and 1-2 ha of operational land respectively. It might be due to the fact that fragmentation of the ancestral land from generation to generation. It is one of the cash crops and will play a major role in the economic upliftment of the society. Therefore, sericulture can be a major booster which may be taken by the small and marginal farmers to earn extra income to their livelihood option.

Table 4: Frequency distribution of the sericulture farmers according to their size of operational land holding (n=100)

| SL NO | Size of operational land holding | Frequency |
|-------|----------------------------------|-----------|
| 1. | Marginal (<1 ha) | 87 |
| 2. | Small (1-2 ha) | 11 |
| 3. | Semi-medium (2-4 ha) | 2 |

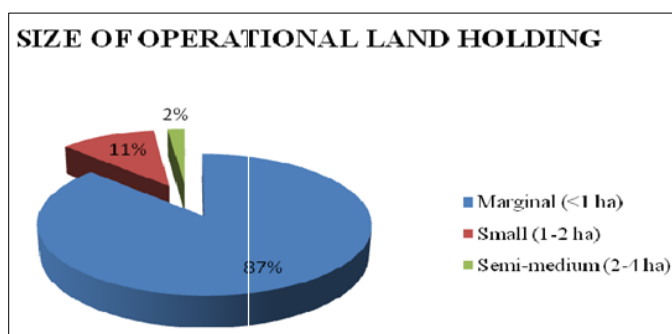


Fig 4: Percentage distribution of the sericulture farmers according to their size of operational land holding

Experience in sericulture

The data portrayed in Table 5 and Fig. 5 shows that majority (54%) of the respondents has an experience of 16-20 years in sericulture, followed by 11-15 years' experience with 21%,

18% above 20 years of experience and 7% with 6-10 years of experience. No respondent has an experience below 5 years. Baqual *et al.* (2014) [9] findings concluded that majority of respondent's fall in medium level category involved in sericulture industry and among them 1/3rd respondents of selected districts had an experience of 0-15 years in sericulture.

It was observed that the majority respondents have above 16 years of experience in the field of sericulture because sericulture has been practiced in the district for a long time. Like many household activities, most activities of sericulture was also a household activity, thus mostly dominated by women which they learn from young age.

Table 5: Frequency distribution of the sericulture farmers according to their experience in sericulture (n=100)

| SL. NO | Experience in sericulture (years) | Frequency |
|--------|-----------------------------------|-----------|
| 1. | < 5 years | Nil |
| 2. | 6-10 years | 7 |
| 3. | 11-15 years | 21 |
| 4. | 16-20 years | 54 |
| 5. | > 20 years | 18 |

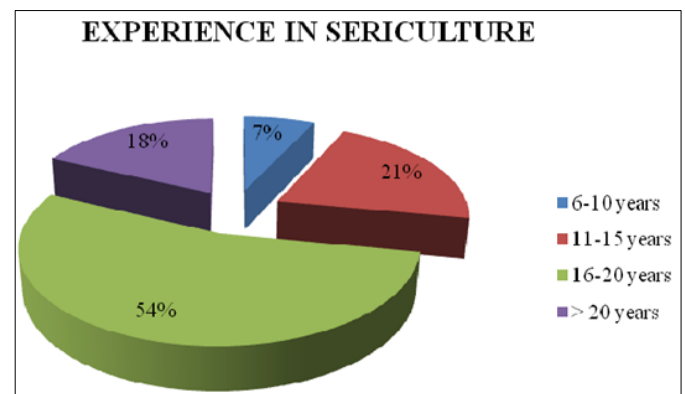


Fig 5: Percentage distribution of the sericulture farmers according to their experience in sericulture

Type of sericulture practiced

The data shown in the Table 6 and Fig. 6 reveals that the respondents practiced ericulture mostly. Hatibaruah *et al.* (2022) [8] study revealed similar findings.

It reveals that though Dima Hasao district consists of all four types of silk viz. ERI, muga, mulberry and oak tasar, the respondents were mainly involved with ERI. cultivation. The other three silks were rarely practiced due to many flaws such as shortage of seeds, food plants, climatic conditions, encouragement from the department etc.

Table 6: Frequency distribution of the sericulture farmers according to the type of sericulture practiced (n=100)

| SL. NO | Type of sericulture practiced | Frequency |
|--------|-------------------------------|-----------|
| 1. | Eri | 100 |
| 2. | Muga | Nil |
| 3. | Mulberry | Nil |
| 4. | Oak tasar | Nil |

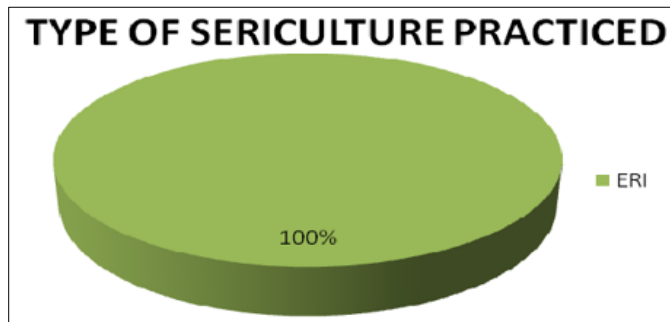


Fig 6: Percentage distribution of the sericulture farmers according to the type of sericulture practiced

Main sericulture activity

The data portrayed in the Table 7 and Fig. 7 shows the respondents were mainly involved with cocoon production and very less involved in post cocoon activities like yarn production and manufacturing silk products.

Majority of respondents were involved in cocoon production because of easy earning rather than continuing with post-cocoon activities such as yarn production and manufacturing silk products due to more consumption of time and labour. However, the earning could have been more improved if they followed post-cocoon activities and sell the products. The respondents still follow the traditional method of yarn production through *takri* which was time consuming and laborious.

Table 7: Frequency distribution of the sericulture farmers according to their main activity of sericulture

(n=100)

| SL. No | Main sericulture activity | Frequency |
|--------|--|-----------|
| 1. | Cocoon production | 87 |
| 2. | Cocoon production and post-cocoon activities | 4 |
| 3. | Post-cocoon activities and silk manufacturing products | 2 |
| 4. | All the above | 7 |

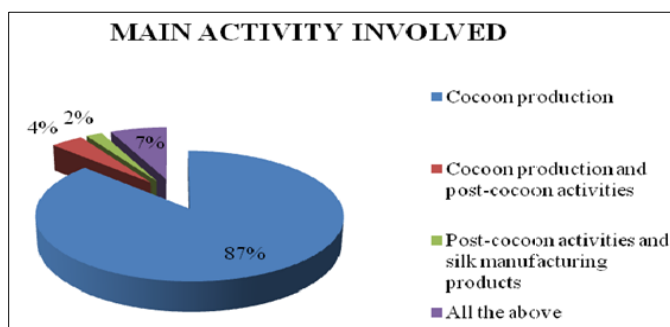


Fig 7: Percentage distribution of the sericulture farmers according to their main activity of sericulture

4. Conclusion

The findings of the study indicate that a significant proportion of farmers fell within the marginal middle age farmer and had up to only high school level of education, in contrast to the more dynamic and technology-oriented young age group. Therefore, there is a pressing need to prioritize and focus on the younger demographic, aiming to attract and engage them in this sector through targeted awareness programs. Furthermore, there is a valuable opportunity to foster entrepreneurial development among the youth in this sector by creating awareness about the diverse scopes and opportunities offered by sericulture within the region.

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