

Critical Analysis on Role of Women in Sericulture Industry

Kunal Sarkar, Mahasankar Majumdar* and Arundhati Ghosh

Department of Sericulture, Krishnath College, Berhampore, Murshidabad, West Bengal, India

*Corresponding author: maha.majumdar@gmail.com

ABSTRACT

Women constitute more than fifty per cent of the world's population, one third of the labour force, and perform nearly two thirds of all working hours. Women are also mostly engaged in the unorganized sector (Mehta and Sethi, 1977). This is more in the case of agriculture and allied activities. Sericulture is one of the important potential labour intensive agro- based rural industry in the world. No wonder women are playing a very important role in the sericulture industry. Their qualities like maternal instincts and loving care of those under their charge prove to be very helpful in the successful breeding of silk worms. The sericulture industry has opened up phenomenal employment avenues and has helped women to become important players in the decision-making process—whether in the household or in the community at large. The active involvement of women is very essential for the success of any community development initiative. This has been proved on many occasions all over the world—more so in the developing countries. This paper analyzed that impact of women workers' dominance in sericulture sector upon the process of inclusive development in the rural household sectors of West Bengal. Women has patience, perseverance, caring attitude and adaptability to new technologies have made her activities more dominant in sericulture and silk production. The present study reveals that Women are engaged with about 60% (about 57% in 1st year and about 64% from 2nd year onwards) work in various sector in Sericulture i.e. from Mulberry cultivation to Silk weaving etc. and women are doing their works successfully in every sector.

Keywords: Women, Labour intensive, Sericulture, Community development

Globally, Asia is regarded as the main producer of silk as it produces over 95% of the total global output. The bulk of it is produced in China, India, Japan, Brazil and Korea. India has been ranked as the second major and largest raw silk producer in the world as it contributes about 18% to the total world raw silk production, with an annual silk production of around 28,000 Metric Tons. Sericulture and Silk Textiles Industry is one of the major sub-sectors comprising the textiles sector. Sericulture is an agro-based labour intensive industry and refers to the rearing of silk producing organisms in order to obtain silk. The production process consists of a long chain of interdependent and specialized operations. The major activities involved in a sericulture industry are: Cultivation of silkworm food plants, Rearing of silkworms for

the production of raw silk, reeling the cocoons for unwinding the silk filament and other post-cocoon processes such as twisting, dyeing, weaving, printing and finishing. In India, it is a village-based industry practiced in about 53,814 villages, which provides employment to about 6 million people moreover it is capable of providing continuous income to farmers. Sericulture suits both marginal and small scale land holders because of its low investments, high assured returns, short gestation period, rich opportunities for enhancement of income and creation of family employment round the year. In India, due to favorable climatic conditions, mulberry is cultivated mainly in five states, viz., Karnataka, Andhra Pradesh, Tamil Nadu, West Bengal and Jammu & Kashmir. These five states collectively account for 97% of the total area under mulberry

cultivation and 95% of raw silk production in the country.

Sericulture is unique in its vast employment and income generating potentialities. From a mere traditional practice, it has now shaped into a viable agro industry. India contributes about 20% to the raw silk produced in the world, ranking next only to china. It occupies only 2.4% of the world's land area but it supports over 15% of the World's population. In India, women constitute almost half of the population (men and women ratio = 1.0: 0.933). About 380 million labour forces (15 – 59 years old) are available in India, of which 51% is in agriculture and agro based industry. Majority of labour force is village based accounting for a total of about 264 million and rural women labour account for about 83 million, representing 31.5% of the rural labour force (Source: Census report, Govt. of India, 1991)

Women in India have been generally configured as “home makers”, but in most cases they also work for a livelihood to support their families. Women also form more than half of agricultural labour in India. Although, most Indian rural women spend 16 – 18 hours a day working at home and outside, their importance and development of the family has not been fully recognized and appreciated. The income generated by the rural women in the family is generally utilized more profitably for the social and economic development for the family. In Southern region, various works are done in this direction.

In fact, women in general are found to bear double burden in the development process – one on the domestic front and the other on the economic front. It is found that women are engaged in work when other members of the family are enjoying rest (Gupta and Gupta, 1987). The continuous increase in prices has also pushed women to income generating activities within or outside the household to maintain an economically sound family.

It is found that India is the home to 12.7 crore working women and 90 per cent of them are working in the unorganized sector (Goswami and Bhattacharya, 2013), it is also found that

although women are engaged in various fields, the participation of women is mostly found in marginal and casual employment due to inadequacy of skills, illiteracy, restricted mobility and lack of individual status (Chari, 1983). Women are also mostly engaged in the unorganized sector (Mehta and Sethi, 1977). They are overwhelmingly concentrated in agro-based/household based activities (where they often serve as unpaid family labour) such as dairying, fisheries, small animal husbandry, handlooms, handicrafts and sericulture. Again, in many countries, even in India, women are often paid two-third or even half of the wages earned by men for the same task (FAO, 1995).

So, the present study has been under taken to assess the participation of rural women in Sericulture. It is often seen that men migrate to the nearby urban area in search of employment, leaving the entire burden of maintaining the household on women. If the rural households are to be made economically viable, self-sustaining units, employment and income generation by rural women may be accepted as an index of social development and the progress of the country (Chattopadhyay *et al.* 2008).

Rural women have to be made economically self dependent through the application of Science and Technology appropriate to the socio economic condition of the rural areas. Suitable programmes are to be selected to enable the women to do productive work along with their other family responsibility. And in this context sericulture has proved to be an excellent vocation for the development of the rural areas in India. Out of the total number of 575,700 villages in India, sericulture is being practiced in about 45000 villages providing employment to about 5.15 million people in which about 50% is constituted by women alone. In India about 28000 MT. of raw silk is being produced.

Sericulture has been fully recognized as an important rural industry in India and elsewhere and is practiced as a house hold industry. It is a labour intensive, export oriented cottage industry, generating high employment and income per unit area of land. One hectare of mulberry land

can generate employment to 13 person per year. Women have played a significant role in this industry. Nearly 60% work of this industry is done by women only (Sekhar and Kumar, 1988, Prakash Kumar, 1986). In recent years, the role of women has received increasing importance. The specific operations she performs as well as the magnitude of her production contribution have started being perceived and acknowledged more recently. The year 1994 had been declared as the 'Year of Women in Sericulture'. Through this special campaign, "women in sericulture" was brought on to the center stage of sericulture development. Later on, by the developmental schemes conceived by Central Silk Board, India advocates greater thrust on women empowerment, promotion, awareness generation and support services. The concept of gender budgeting introduced by the Government of India during Tenth Plan also led the Central Silk Board of the country to assess the adequateness of the allocation of resources for women and ensure that the gender commitment coupled with budgetary commitments are translated into achievements. The Eleventh Five Year Plan made a separate "women development component" mainly to address the social security concern of women associated with the silk industry (Roy, 2015)

Particularly in the District like Murshidabad where male persons of the family migrate themselves in different part of the States and country for the construction works mostly as mason, this type of small scale industry is largely dependent on female members of the family. So here an effort is done to assess the participation of rural women in different activities of Sericulture. This study also focuses on employment generation of rural women in Sericulture.

Objectives

The broad objective of the study is to assess the participation of rural women in Sericulture. This study also focuses on employment generation of rural women in Sericulture. The specific objectives formulated are:

- ♦ Participation of rural women in different activities of Sericulture.

- ♦ Share of work load carried out by women in different activities of Sericulture.
- ♦ Generation of employment for rural women through different activities of Sericulture.

MATERIALS AND METHODS

The study was planned to assess the participation of rural women in Sericulture, who are already engaged in sericulture in Nabagram Block and Berhampore Block of Murshidabad District. To analyze the participation of rural women in Sericulture, aspects like Participation of rural women in different activities of Sericulture, Share of work load carried out by women in different activities of Sericulture, generation of employment for rural women through different activities of Sericulture are critically studied. Murshidabad is one of the leading districts in terms of silk production in West Bengal. Nabagram is one of the main areas of Murshidabad where sericulture is practiced in a large scale. The study was conducted in 12 villages of Nabagram block like Khorakdanga, Santipara, Balaspur, Nagar, Ramchandrapur, Saheb Nagar, Derul, Chalkchuppur, Sahidpur, Bankipur, Hojibidanga and Khordighipara. The study composed of 60 families who have been practicing sericulture for a long time.

Women of these families are actively engaged in different activities of sericulture including mulberry cultivation, silkworm rearing, silk reeling etc. Women of Nagar are mainly engaged in different activities of weaving. Four villages of Berhampore Block (Sebabrata, Narayanpur, Balarampur and Krishnamati) were also included in the study. Data was collected from 20 families of these villages. Families of these villages are also engaged in different activities of weaving. Purposefully random sampling method is followed for conducting the survey. Data pertaining to the related topic were collected after three visits in April 2017 by personally interviewing with the aid of designed questionnaire and was interpreted accordingly (Ray, G.L. & Mandal, S. 1997).

Target Group

Women from traditional Sericulture families who are actively engaged in Sericulture.

Table 1: Employment Generated for One Acre of Irrigated Mulberry Garden

First year Establishment

(I) Mulberry

(A) Participation of Rural Women in the Establishment of Mulberry Garden:

Sl. No.	Activities	Total Number of *Man Days	Employment for Women	
			Number of Man Days	Percentage Share
a.	Deep digging	100	20	20
b.	Preparation of mulberry cuttings (pit system)	10	06	60
c.	Digging pits and planting	120	72	60
	Sub Total 'A'	230	98	43



Fig. 1

1. Deep digging; 2. Preparation of mulberry cuttings (pit system); 3. Digging pits and planting

(B) Participation of Rural Women in the Management of Mulberry Garden:

Sl. No.	Activities	Total Number of Man Days	Employment For Women	
			Number of Man Days	Percentage Share
a.	Inter-cultivation	20	6	30
b.	Weeding	24	24	100
c.	Application of chemical fertilizers and Farm Yard manure	14	11	78
d.	Irrigation	28	8	29
e.	Leaf harvest	64	58	91
f.	Pruning	8	8	50
	Sub Total 'B'	158	115	73

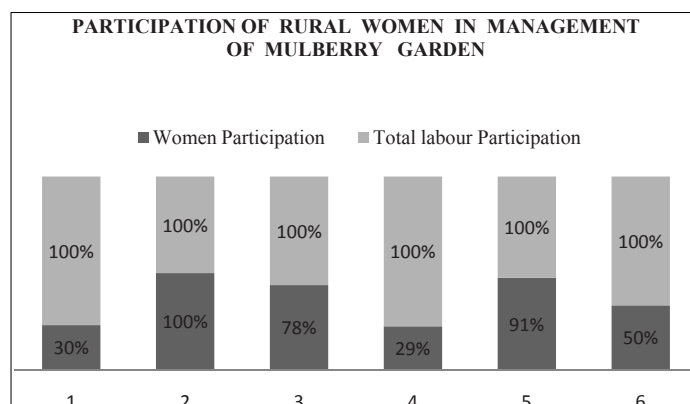
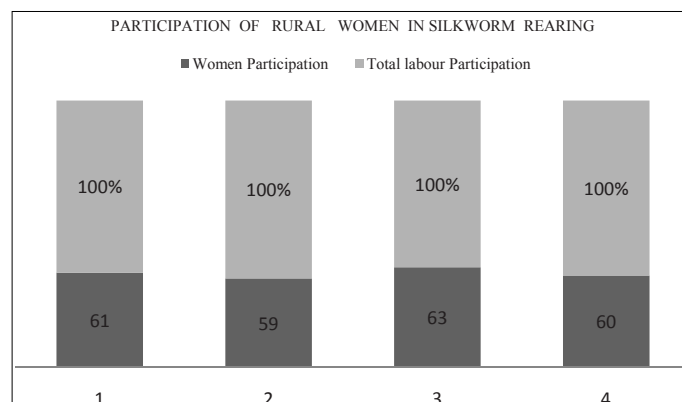


Fig. 2

1. Inter-cultivation; 2. Weeding; 3. Application of chemical fertilizers and Farm Yard manure; 4. Irrigation; 5. Leaf harvest; 6. Pruning

(II) Silk Worm Rearing**(C) Participation of Rural Women in Silkworm Rearing:**

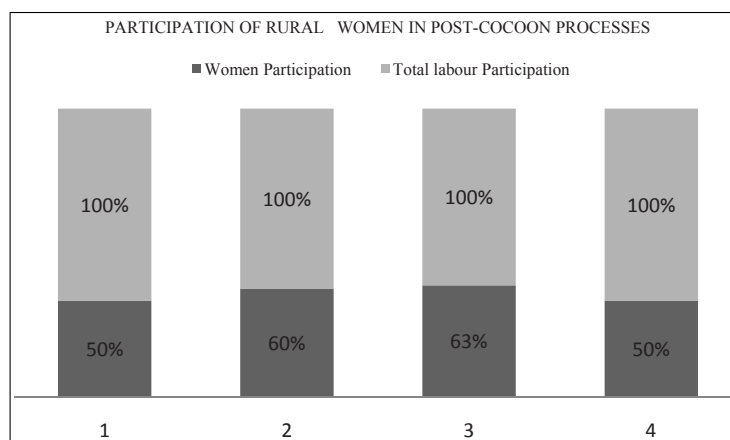
Sl. No.	Activities	Total Number of Man Days	Employment for Women	
			Number of Man Days	Percentage Share
a.	Chawki Rearing	38	23	61
b.	Late age rearing	58	34	59
c.	Spinning and Harvesting	16	10	63
d.	Cleaning, disinfection and preparation for next rearing	10	6	60
	Sub Total 'C'	122	73	60

**Fig. 3**

1. Chawki Rearing; 2. Adult Rearing; 3. Spinning and Harvesting; 4. Cleaning, disinfection and preparation for next rearing

(III) Post Cocoon Process**(D) Participation of Rural Women in Post-Cocoon Processes:**

Sl. No.	Activities	Total Number of Man Days	Employment for Women	
			Number of Man Days	Percentage Share
a.	Silk Reeling in Charka	60	30	50
b.	Twisting	75	45	60
c.	Weaving	176	110	63
d.	Printing, dyeing, etc.	6	3	50
	Sub Total 'D'	317	188	59

**Fig. 4**

1. Silk Reeling in Charka; 2. Twisting; 3. Weaving; 4. Printing, dyeing, etc

(IV) Rearing Appliance Sector

(E) Manufacture of Rearing Appliances

Sl. No.	Activities	Total Number of Man Days	Employment for Women	
			Number of Man Days	Percentage Share
a.	Manufacture of Rearing appliances	44	26	59
	Sub Total 'E'	44	26	59

*1 Man Day= 8 Hours.

Total (A+B+C+D+E) = Total Number of Days = 871, Employment for women = 500, percentage of work share for women = 57%

Assumption as per survey

1. Leaf Harvest (1st year)- About 7500 kgs in three crops *i.e.* after 6 months, 9 months and 12 months during establishment year.
2. Leaf consumption for 100 dfls- 1000 kg.
3. Total No. of DFLs to be reared- 250DFLs/crop with three rearings in 1st year (Total 750 dfls)
4. Cocoon yield/100 DFLs: 40 kg.
5. Total Cocoon yield in 1st year-300 kg.
6. Renditta-10 kg.
7. Total silk yield in 1st year: 30 kgs.

Table 2: Employment Generated for One Acre of Established Irrigated Mulberry Garden

Second Year Onwards:-

(I) Mulberry

(A) Participation of Rural Women in the Establishment of Mulberry Garden:

Sl. No.	Activities	Total Number of *Man Days	Employment for Women	
			Number of Man Days	Percentage Share
a.	Inter-cultivation	40	12	30
b.	Weeding	40	40	100
c.	Irrigation	30	6	20
d.	Application of Farm Yard Manure	8	6	75
e.	Application of Chemical Fertilizers	12	11	80
f.	Leaf harvest	240	216	90
g.	Pruning	12	3	25
	Sub Total 'A'	382	294	77

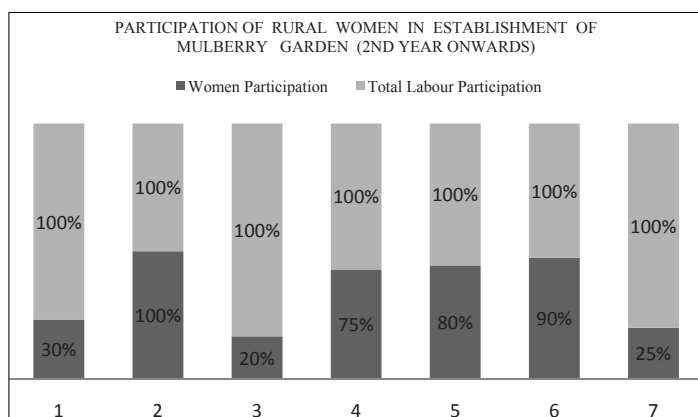
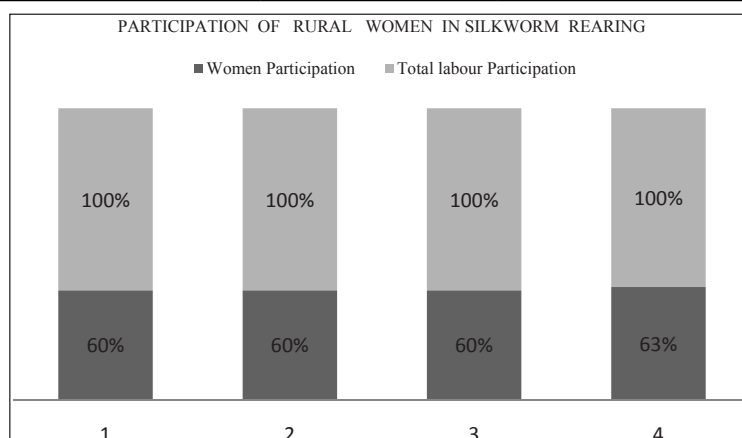


Fig. 5

1. Inter-cultivation; 2. Weeding; 3. Irrigation; 4. Application of Farm Yard Manure; 5. Application of Chemical Fertilizers; 6. Leaf harvest; 7. Pruning

(II) Silk Worm Rearing**(B) Participation of Rural Women in Silkworm Rearing:**

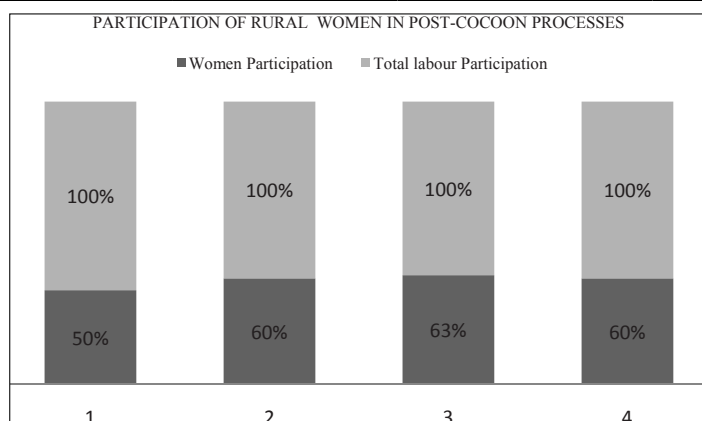
Sl. No.	Activities	Total Number of Man Days	Employment for Women	
			Number of Man Days	Percentage Share
a.	Chawki Rearing	63	38	60
b.	Late age rearing	96	58	60
c.	Spinning and Harvesting	27	16	60
d.	Cleaning, disinfection and preparation for rearing	17	10	63
	Sub Total 'B'	203	122	60

**Fig. 6**

1. Chawki Rearing; 2. Late age rearing; 3. Spinning and Harvesting; 4. Cleaning, disinfection and preparation for next rearing

(III) Post Cocoon Process**(C) Participation of Rural Women in Post-Cocoon Processes:**

Sl. No	Activities	Total Number of Man Days	Employment for Women	
			Number of Man Days	Percentage Share
a.	Silk Reeling	100	50	50
b.	Twisting	125	75	60
c.	Weaving	292	184	63
d.	Printing, dyeing, etc.	10	6	60
	Sub Total 'C'	527	315	58

**Fig. 7**

1. Silk Reeling; 2. Twisting; 3. Weaving; 4. Printing, dyeing, etc

(IV) Rearing Appliance Sector

(D) Manufacture of Rearing Appliances

Sl. No.	Activities	Total Number of Man Days	Employment for Women	
			Number of Man Days	Percentage Share
a.	Manufacture of Rearing appliances	73	44	60
	Sub Total 'D'	73	44	60

* 1 Man day = 8 hours

Total (A+B+C+D+E) = Total Number of Days = 1185, Employment for women = 775, percentage of work share for women = 64%

Assumption as per survey

1. Leaf Harvest (From 2nd year onwards)- About 12500 kgs in five crops
2. Leaf consumption for 100 dfls- 1000 kg.
3. Total No. of DFLs to be reared- 250DFLs/crop with five rearings (Total 1250 dfls)
4. Cocoon yield/100 DFLs: 40 kg.
5. Total Cocoon yield in 1st year-500 kg.
6. Renditta-10 kg.
7. Total silk yield in 1st year: 50 kgs.

RESULTS AND DISCUSSION

(A) Involvement of Rural Women in Various Sericulture Activities

In Indian context, rural women are more involved in most of the Sericulture activities than men, starting from soil to silk fabrics.

1. Mulberry Cultivation

Hard jobs like land digging, furrowing and ridging, ploughing, pruning, and carrying heavy loads are generally carried out by men, while other jobs in mulberry cultivation management like preparation of cuttings, planting them in the nursery or into the field, application of Farm Yard Manure (FYM) and chemical fertilizers, irrigation etc. are shared along with men. However, activities like weeding, harvesting of leafs and their transportation are almost exclusively carried out by women. In addition to their own family labour, landless family labourers are also employed in peak periods of the work. In mulberry cultivation during the establishment year, participation of rural women was almost 100% in weeding and 91% in leaf harvest (Table 1/A). But in case of operation like deep digging and irrigation of mulberry participation, the rural women constitutes only 20% and 29% respectively (Table 1/A&B). Almost the same trend was observed from the second Year onwards (Table-

2/A) where almost 77 % activities were done by rural women only.

2. Silkworm rearing

In small scale operations, silkworm rearing is entirely taken care of by the family labour alone. In general, women in the house, while attending to household activities also look after silkworm rearing activities like leaf chopping, bed cleaning, feeding the silkworms, maintenance of hygiene, picking the ripe worms and placing them on montages and so on. Men generally share the works during the peak periods of silkworm rearing such as during the fifth instar, picking the ripe worms and mounting when there is heavy work which is difficult for women to manage by themselves. These activities generate employment of about 325 man days out of which women's share is around 195 accounting for about 60 percent [Table1 (Part II/B and Table 2 (PartII/C)].

3. Cocoon marketing

Though women are constantly involved in production of cocoons and harvesting them, it has been an exclusive prerogative of men in the family to transport the cocoons to market, sell them and collect the money. Finally, women have always been excluded from this activity due to traditional social customs. However, recently some rural women are also found accompanying men to the markets.

4. Post-Cocoon process

In Post Cocoon Processes it was found that participation of rural women was almost 58-59% (Table 1/D and Table 2/C). Among the post cocoon processes, the reeling of silk is to a large extent done as a family cottage industry using traditional crude charkas where the women or the landless non-farm families are mostly involved in producing the raw silk that has good demand in the internal market. Children and men are also involved. Improved cottage basins organized by private entrepreneurs produce relatively better cottage raw silk where mostly landless women labourers are employed in addition to child labour. The [resent study reveals that during the first year in one acre of mulberry land approximately 300 kg cocoons are harvested from three rearings from which around 30 kg silks are produced keeping renditta 10 kg. In complete Post Cocoon process, almost 317 mandays are required of which the share of women is around 59% (Table 1, Part-III/D). From the second year onwards in one acre of mulberry land approximately 500 kg cocoons are harvested from three rearings from which around 50 kg silks are produced keeping renditta 10 kg. In complete Post Cocoon process almost 527 mandays are required of which the share of women is around 58% (Table 2, Part-III/C).

Apart from the above activities, the women are also employed in silkworm egg production, manufacture of sericulture appliances such as bamboo mountages, leaf baskets and also in various other activities in the sale and promotion of silk fabrics, sericulture extension, research and development.

(B) Employment generation for Rural women

Sericulture industry can be broadly classified into mulberry cultivation, silkworm rearing, post-cocoon processes and manufacture of rearing appliances. The Tables describe the number of working days required for each of the activities in Sericulture during the first year of its establishment under irrigated mulberry, and the share of women in these activities. The Tables make it very clear that almost all the activities in Sericulture are carried out by women, except some which are shared along with men. However, there are certain jobs like weeding, leaf harvest, rearing of silk worm, silk reeling

which are exclusive monopoly of women. Thus, during establishment year in one acre of mulberry garden almost 871 man-days are required, from which participation of women is almost 500 man-days which almost accounts 57 % of the total share. From second year onwards it was estimated that in one acre of mulberry garden almost 1185 man-days are required, from which participation of women is almost 775 man-days, which accounts 64 % of the total share. Apart from the above activities, the women are also employed in various activities of silkworm egg production

(C) Suitability of Rural women for sericulture activities

It is stated that in China as early as 2600 B.C., Leisu, wife of the Emperor Huang-di was supposed to have taught the people as to how to rear the silkworms, reel silk and to make garments. Further, in the year 2640 B.C. according to the legend, the usefulness of silk was discovered by a Chinese Empress Sailen-Chi. Thus, the origin and development of Sericulture is linked to women. The sericulture industry fits into the guidelines and principles of the International Council of Women.

1. Technique and operations are complicated

The technology of rearing silkworms, such as the selection of the quality of the leaf and adjustment of the feed dosage during different cycles of its growth and rest, adjustment of rearing environment, cleaning of rearing beds and rearing room are complicated. Silkworms are more delicate and have to be handled delicately with proper care. Thus, the entire process of silkworm rearing needs expertise, patience and high skill. Women possess the above qualities abundantly and are more suitable.

2. Labour is light

Sericulture operations are complex, but by no means heavy and hard. Among various farm jobs, Sericulture is conducted by the lightest labour. In fact, almost 90 percent of the Sericulture activities, except strenuous and hard jobs like land digging, ploughing and carrying heavy loads, women can carry on almost all works in mulberry cultivation, silkworm rearing, silk reeling, weaving, printing, etc. They also share the tasks of weeding, leveling, inter-cultivation, pruning and irrigation along

with men. Raising of mulberry nursery, planting and establishment of mulberry also involve more women.

3. Household activity

Silkworms need proper parental care which is instinctive for women. The rearing of silkworms is indoor and the rural women in India spend most of their time inside their house taking care of their household activities. As such, women can also take up rearing of silk worms' side-by-side. The rearing of silkworms does not require continuous work, an average of about three to four hours spread over a day is sufficient. Most of the work can also be done by elder children and also the elder members of the family. Hence, time scheduling does not pose any problem for women for Sericulture activities, and Sericulture is ideally suitable to the lifestyle and social customs of the rural families.

4. Special monopoly of women

Women are specially suited for certain jobs in Sericulture, such as silkworm rearing and silk reeling.

Silkworm Rearing: Silkworm *Bombyx mori* L is a domesticated and delicate insect. Intensive care is needed for silkworm rearing. Women have an inherent capability of nursing their children. This capability can be used by women during the rearing of silkworm larvae.

Silk Reeling: Silk is a very fine delicate filament and the reeling of such a filament shall be handled by delicate hands of women. In India, silk reeling is taken up mostly as a household activity on traditional charkas by landless non-farm families. Thus women are better suited for these jobs and are found to be entirely managed by women in the industry.

5. Suitability to the existing social customs and convenience for family labour

Deep-seated social taboos and traditions and customs of the society do not encourage majority of the rural women to work outdoors, away from home or in somebody else's land. In such a situation, Sericulture proves to be a boon wherein women can carry on the work within the house. Besides, silkworm rearing is done indoors, requiring

regular intervals of feeding, constant care and vigil. Silkworm rearing is ideally suited for women in the family and also for their lifestyles and social customs of the family.

6. Women are important than men in the work force of sericulture

Generally a tendency exists in the villages to separate male and female labour, with women's wages being considerably lower than the probability of employment than men. Opportunities for labour vary seasonally in rural areas, resulting in high labour surplus in some seasons.

However, in Sericulture, the introduction of inter-cropping and integrated farming systems involves dairy, silk reeling, weaving, etc., increases the family labour productivity, employment and high income generation throughout the year in rural areas, particularly in those regions where agro climatic conditions favour sericulture activities throughout the year.

7. Subsidiary Occupations

- (a) Apart from the above activities, the women are also employed in silkworm egg production, manufacture of sericulture appliances, such as weaving bamboo mountages, rearing trays, leaf baskets, and so on.
- (b) Women also play a very important role in dairy development and have contributed towards enhancing milk productivity. Since the mulberry leaf is highly nutritious and also relished by the cattle, the waste mulberry leaf, the left over silkworm litter after bed cleaning, can be used for feeding the cattle. Thus, the silk and milk industry can be integrated together where women can play a much better role in generating high employment and income for the family.

(D) Socio-Economic Issues Involved

Landless Labour:

- (a) **Lack of regular employment opportunities:** The landed agricultural families will have work for most part of the year in their own lands as well as in silkworm rearing in their own houses. On the other hand, the landless women farm labour goes

in search of work from one garden to the other, depending on the requirements of the land owners. They are not assured of employment regularly.

(b) Lack of child care during working hours: These landless women have to look after household chores, child care and also their wage earning jobs. They start their work early in the morning, running upto late in the evening. This forces them to be away from their homes the whole day, leaving the children alone without anybody to look after their needs.

(c) Burden of family maintenance: In rural areas, the landless labour, mostly men, migrate to nearby urban areas in search of stable employment, leaving their women folk in the villages to take care of their family maintenance as well as in earning their wages. It is in this context, sericulture has become a boon to such landless women folk.

In sericulture industry, different aspects of the industry are carried out by different group of people. In the rural areas, always the cocoon producers are different from the silk weavers. The cocoon production is mostly done by the landed agricultural families. However, in some areas, the landless farm families also carry on silkworm rearing and produce cocoons by purchase of leaf for each crop from different gardens or taking mulberry gardens on lease.

Landed farm families

Non-participation of women in Marketing: Though women are constantly involved in almost all the activities upto the production of cocoons, they are excluded in the marketing of cocoons and collection of money. This is mainly due to the social taboos and customs prevailing in rural areas. In rural areas, it is generally seen that the money going into the hands of the women is effectively utilized for the development of the family and it is entirely not so in the case of men. Sericulture in India has proved to be the highest income producer per unit area under the socio economic conditions of the small farmers due to the better organization of the marketing system. But the benefits are not reaching the family for the socio-economic uplifts as the women are not involved in marketing and financial transactions. In recent times, it is heartening to note that some women are also involved in the marketing of cocoons.

Non-involvement of women in financial assistance: Women do not have the same opportunity as men in financial assistance such as farming credit. In fact, the financial assistance going into the women's hands is effectively utilized for the purposes it is meant for.

Landless non-farm labour

In India, silk reeling is also carried out to a considerable extent on traditional charkas by landless non-farm families and mostly women carry out as a cottage unit in their own houses using their own family labour including children.

(a) Occupational hazards: For the charka reelers, the sitting posture is very uncomfortable and strenuous while working. While cooking and reeling the cocoons, the women dip their hand in hot water constantly, which affect their fingers. Also the prevailing hot and humid air and smoke in the reeling units also affect their lungs. The owners of these units do not pay any attention for improving the working conditions.

((b) Deplorable living conditions of charka reelers: Though the charka silk has very good demand in the internal market and fetches relatively high profitability, the living conditions of these charka reeling families are deplorable. This is mainly due to the fact that money does not reach the women folk. Though they are actually involved in the activity, women are excluded in the marketing of silk and the collection of sale proceeds. Systematic studies on the socioeconomic conditions of these charka reeling families are lacking.

General issues

(a) Inequality between men and women labour: Generally in rural areas, there is no equality between men and women with respect to job opportunity, rights and wages. Always the female workers get less wages than a male would get for the same work, even though the qualifications are identical. In most developing countries such as China, Bangladesh, Sri Lanka and so on, the women are always discriminated in terms of wages and opportunity.

(b) Lack of exposure to improved technology, tools and progressive ideas : In spite of the fullest involvement of women in most of the sericulture

activities, the training programmes, exposure to improved technology, extension services, tools and interaction with progressive farmers are always directed towards men and are transmitted indirectly in a partial manner to women. Most of the extension agents are also men. With the existing conservativeness in the rural areas, the women folk keep themselves away from contact with outsiders particularly the men folk. This is one of the reasons for the lower productivity in sericulture.

Brighter side

In the recent years, awareness as to what happens to women and their role in the process of development has increased. Realizing their importance, the Government of Karnataka has been recently arranging technical training programmes exclusively for women on cocoon production technology, silk reeling and so soon. The accessibility and the impact of women as sericulture Extension officers, to rural women has been realized and, more and more women are being recruited as extension staff in sericulture. They have made a very significant impact on rural women sericulturists in technology transfer in Karnataka.

Efforts have also been made by the Central Silk Board institutes and also by some private entrepreneurs to improve the traditional charka with regard to improve the quality of yarn, fuel efficient and smoke less oven and to minimize the hot water contact directly. However, these improved charkas have not yet become widely popular because of the lack of awareness and finances, but there requires an appreciation for the need of improved charka silk quality in the market.

CONCLUSION

In any discourse on sociology and anthropology, one fact that clearly emerges is that women can generally be trusted to perform their duties with utmost care and attention. This is more so in the case of agriculture and allied activities. No wonder women are playing a very important role in the sericulture industry. Their qualities like maternal instincts and loving care of those under their charge prove to be very helpful in the successful breeding of silk worms. The sericulture industry has opened up phenomenal employment avenues and helped women to become important players in the decision-

making process—whether in the household or in the community at large. The active involvement of women is very essential for the success of any community development initiative. This has been proved on many occasions all over the world—more so in the developing countries. Women's activities directed at the maintenance of the family are generally not given due weightage. Their substance of economic contributions as family workers are not separately accounted. This failure to recognize the role of women in development results in improper designing of developmental programs.

While designing any projects, care must be taken to give due weightage to women to see that all the inputs, information, and training are transmitted to women, proportionately.

Sericulture is providing stable income to many rural agricultural families and a livelihood to scores of landless farm and non-farm women labourers giving much economic strength. Unless these benefits also bring in social development and improvement in the lifestyle of these families, they cannot serve the very purpose of development.

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