

Participatory Profiles of Women in Eri Culture in Assam State of India

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Abstract: In order to visualize the participatory profiles of women in different activities of eri culture, a study carried out in the Udalguri district of BTC, Assam. The study revealed that participations of women in host plant cultivation and management was not significant (3.8 %) but in silkworm rearing, cocoon harvesting, marketing and spinning of spun yarn the participations of women was very high (72.1%). Besides, the women play a major role in decision making for most of the activities of eri culture. Further, 48.9% women alone take decisions against 33.6% men in various activities of eri culture. Joint decisions taken by both men and women were recorded 17.4%. The study also revealed that marital status and annual income of the women have significant correlation with the participation in eri culture while age and family size of the women have negative correlation. Similarly, education, caste and size of land holding found to have negative correlation with their extent of participation. Various constraints like lack of separate rearing house, lack of adequate plantation, lack of improved technological knowledge and inadequate time reported to have influences in participation of women in eri culture. As the women contributes significantly in socio-economic development of rural sector through eri culture, the rural women needs financial and technological supports for development of eri culture.

Key words: Eri culture • Women participation • Socio-economic • Decision making

INTRODUCTION

India is the homeland of all five varieties of natural of quality food plants apart from rearing facilities, silk viz. Mulberry, Tasar, Oak Tasar, Muga and Eri silk [1]. Eri culture is one of the traditional practices sustaining amidst the tribal communities inhabitant in the rural areas in the North East region of India especially in Assam and the people are considering it as a subsidiary occupational venture since time immemorial. Although, the primary aim of the silkworm rearers is to produce eri silk, the pre-pupae and pupa is the most important by-product of eri culture, which is delicacy among tribal people of the region. Due to rich protein contents and delicious in nature, the pre pupae and pupae have a great demand as food item among the tribal people in the North East India [2]. Eri silkworm is fully domesticated and reared in indoor condition and hence, women play a significant role during rearing and post-rearing activities, which is synchronized well with the other day-to-day household activities of the women. Besides, it provides self-employment to the rural

women through which they can supplement their family income. As per 2011 census, total population of Assam is 311.69 million of which male and female are 159.55 million and 152.14 million, respectively. In eri sector more than 1.80 lakh farm families are actively engaged in the state. The rural women in the state contribute substantially to the rural economy through eri-culture. Women participate in almost all the activities like leaf harvesting, silkworm rearing, cleaning, collection of dry leaves for spinning cocoons, harvesting of cocoons, spinning of spun yarn and also marketing of pupae, cocoons, spun yarn and fabric production. However, gender based profiling of participation in eri culture have not been studied systematically till date. Further, no efforts initiated by the researchers to find out the relationships with the socio economic variables of women with that of their participation in the culture. Hence, the present study undertaken to visualize the participation of women in different activities of eri culture in Assam. It also aimed to focus on relationship with the socio-economic variables of the women and their participation in eri culture.

MATERIALS AND METHODS

Udalguri district of BTC, Assam identified purposively for the present investigation because the district produces huge quantity of eri silk annually. Based on the concentration of eri rearers, the villages namely Paneri, Gopipur, Khalengduar, Ghagra, Soinajuli, Dimakuchi, Kothalguri, Botiamari and Niz-Japrabari were selected. Primary data on participatory profiles in host plant cultivation and management, rearing of silkworms, spinning of spun yarn, decision making in different activities of men and women, etc were collected randomly from 104 household actively associated in eri culture through personal contact method using the pre structured interview schedule. The simple percentage was taken to interpret the findings in case of participation of men and women and participation in decision making in different activities. From the pulled data, socio-economic profiles of the women participated in the eri culture were tabulated and analyzed statistically to correlate with their participation.

RESULT AND DISCUSSION

Participation of Women in Host Plant Cultivation and Rearing of Silkworm: Data presented in Table 1 indicated that in host plant cultivation and management, women do not play significant role. The activities viz. land preparation, pit digging, erection of fencing, transplantation of seedlings, application of fertilizers, plant protection against pest and diseases are hard and need skills. That is why; men normally attend these works as they have more physical strength and skills than women counterpart does. However, in case of some light activities like weeding, watering, etc for maintenance of nursery and plantation, few of the women found to participate occasionally. It has been recorded that 21.2 % women contributing in weeding and watering of nursery and 17.3% women contributing in weeding and watering of plantation. The study showed that out of the total sampled families involved in eri culture, average participation of women in host plant cultivation and management was only 3.8% against participation of 96.2% men.

The study also revealed that participation of women was significantly higher against men in the activities relating to silkworm rearing, cocoon harvesting, marketing and spinning of spun yarn. Data presented in Table 2 indicated that participation of women was 74.0% in selection of seed cocoons, 66.3% in procuring dfls from

seed organization, 81.7% in preparation of laying at own level, 69.2% in leaf harvesting, 83.7% in feeding and cleaning, 76.0% in collection of ripen worms, 78.8% in harvesting of cocoons and 79.8% in removing of pupae from the cocoons. Besides, involvement of women was also recorded high (74.0%) against men (27.0%) in marketing of pupae and cocoon. The highest involvement of women (88.5%) was recorded in spinning of spun yarn where involvement of men was significantly less (11.5%). However, in case of disinfection of rearing house and appliances, involvement of women was comparatively less (41.3%) against involvement of men (58.7%). Average participation of women in silkworm rearing, cocoon harvesting, marketing and spinning of spun yarn was 72.1% against participation of 27.9% men. The similar trend of participation of women was also reported in case of mulberry sericulture [3, 4].

In Assam 60% tribal women attend all the activities of eri silkworm rearing such as leaf plucking, feeding of worms, bed cleaning, collection of dry leaves for spinning and lastly harvesting. Also Sen *et al.* [5] reported that participation of tribal women in the marketing of eri cocoons is more than tribal men. From the present study, it is also evident that overall participation of women in silkworm rearing, cocoon harvesting, marketing and spinning of spun yarn is 72.1% against 27.9% men. In case of mulberry sericulture, the women participation is also high in the silkworm rearing than mulberry cultivation. The men attending the heavier and skilled works like land preparation, collection of planting materials, procurement of fertilizers, etc, while the participation of women is higher in rearing, leaf harvesting, bed cleaning, spinning, harvesting of cocoons, etc. [6]. In Assam, sericulture is not considered as the primary source of occupation. The families involved in eri culture are normally belongs to low income group of the society. The men of these families are always remaining busy with their primary sources of occupation and they do not pay more attention in the sericulture activities specially in eri culture. The women normally stay at home for different household activities. In addition to that, they are able to manage the required time for rearing of silkworms to supplement some extent to the family income. Besides, the above activities are very much suited to the physical strength of the women. In major agricultural crops also, women generally contribute more in the light agriculture operations. The reasons behind this may be the lesser physical strength of women than men [7].

Table 1: Participation of men and women in host plant cultivation and their management in eri culture (N=104)

Sl. No.	Activities	Men	Women
1	Nursery development	104 (100.0)	0
2	Watering, weeding, etc. in nurseries	82 (78.8)	22 (21.2)
3	Land development for plantation	104 (100.0)	0
4	Erection of bamboo fencing	104 (100.0)	0
5	Pit digging	104 (100.0)	0
6	Manuring at the pit	104 (100.0)	0
7	Transplantation of seedlings	104 (100.0)	0
8	Watering, weeding, etc. in plantation	86 (82.7)	18 (17.3)
9	Application of fertilizers to the plants	104 (100.0)	0
10	Plant protection against pest and predators	104 (100.0)	0
Average		100 (96.2)	4 (3.8)

Figure in parenthesis indicate percentage

Table 2: Participation of men and women in silkworm egg production, rearing and post rearing activities (N= 104)

Sl. No.	Activities	Men	Women
1	Selection of seed cocoons	27 (26.0)	77 (74.0)
2	Procuring of dfls	35 (33.7)	69 (66.3)
3	Preparation of laying at own level	19 (18.3)	85 (81.7)
4	Disinfection	61 (58.7)	43 (41.3)
5	Leave harvest and their transportation	32 (30.8)	72 (69.2)
6	Feeding and cleaning	17 (16.3)	87 (83.7)
7	Collection of ripen worms	25 (24.0)	79 (76.0)
8	Harvesting of cocoons	22 (21.2)	82 (78.8)
9	Removing of pupae	21 (20.2)	83 (79.8)
10	Marketing of pupae and cocoon shell	27(26.0)	77 (74.0)
11	Spinning of spun yarn	12 (11.5)	92 (88.5)
Average		29 (27.9)	75 (72.1)

Figure in parenthesis indicate percentage

Table 3: Participation of men and women in decision making in different activities of eri culture (N=104)

Sl. No.	Activities	Men (%)	Women (%)	Both (%)
1	Raising of eri food plants	35.6	48.1	16.3
2	Selection of variety of eri host plants	44.2	35.6	20.2
3	Adoption of host plant cultivation technologies	55.8	26.0	18.2
4	Plant protection	50.0	27.0	23.0
5	Rearing of eri silkworms	26.0	58.6	15.4
6	Rearing seasons	21.0	52.0	27.0
7	Assessment of quantity of dfls/layings to be brushed	23.1	54.8	22.1
8	Adoption of rearing technologies	26.0	55.8	18.2
9	Marketing of cocoons	36.5	52.0	11.5
10	Marketing of pupae	30.8	53.8	15.4
11	Procuring of improved eri Spinning machine	30.8	55.8	13.4
12	Contact with the departments	40.4	46.2	13.4
13	Training need	16.3	71.2	12.5
Average		33.6	48.9	17.4

Table 4: Relationship with socioeconomic variables of women and their participation in eri culture N =77

Sl. No.	Socio-economic variables	Coefficient correlation 'r'
1	Age	0.571NS
2	Educational status	-0.448NS
3	Caste	-0.808 NS
4	Marital status	1.000*
5	Size of land holding	-0.617 NS
6	Annual income	0.989*
7	Family size	0.581 NS

*Significant at 5 percent level & NS = Non significant

Role of Women in Decision Making in Different Activities of Eri Culture:

Decision-making and proper planning in sericulture is considered as an important part of sericulture. Success of silkworm crops are mostly depend on appropriate decisions in selection of variety of host plant and silkworm, selection of rearing seasons, assessment for requirement dfls/layings for capacity utilization, time of disinfection, feeding of silkworms, etc. The present study shows that the women are playing a major role for taking decision in most of the activities of eri culture. It has found that among the sample farmers, 48.9% women alone take decisions against 33.6% men in various activities of eri culture. Data presenting in the Table 3 clearly indicates that participation of women in decision making is varied from 26.0 % in adoption of host plant cultivation technologies to 71.2% in training need on eri culture. Data in Table also indicates that involvement of women in taking decisions was recorded as high as 58.6% in taking up rearing, 52.0% in selection of rearing seasons, 54.8% in assessment of quantity of dfls/layings to be brushed, 55.8% in adoption of improved rearing technologies, 52.0% in marketing of cocoon, 53.8% in marketing of pupae and 55.8% in procurement of improved spinning machine. On the other hand, in some activities viz, selection of variety of host plants, adoption of improved technologies for host plant cultivation and plant protection role played by women in decision-making is comparatively less against men. The Joint decision taken by both men and women was also recorded as 17.4%.

Relationship of Socioeconomic Variables of Women with Their Participation in Eri Culture:

Attempt was also made to find out the relationship between the socioeconomic variables of women with their extent of participation in eri culture. From the analyzed data presented in the Table 4, it can be visualized that the age and family size of the women is not correlated with their extent of participation. Although, the physical strength enables the young age women to perform more works, but their involvement in eri culture is not encouraging. Similarly, the physical strength of the old age women does not permit frequent movement to operate the different activities of eri culture. With regard to the family size, most of the women belong to nuclear family constituted of 5-8 members. Joint families with more members are very less in the present society. Similarly, education, caste and size of land holding are found to have negative correlation with their extent of participation. The reason may be due to poor economic conditions and illiteracy, the women

compel them to adopt the eri culture as a subsidiary occupation for supplement to the family income. On the other hand, the socioeconomic conditions of educated women are much better than the illiterate or low educated women. The educated women normally want to busy with government or semi government job or associate with other enterprises. As regard to the caste, it is fact that in eri culture, involvement of tribal people is more against the involvement of the people belongs to higher caste or general caste. Further, the women having big size land holding is always busy with different agricultural operations as that gives more income than eri culture. That is why; they are least bother about the eri culture.

On the other hand, marital status and annual income were found to be correlated significantly. The reason may be the married women of every household are always more responsible for running a family smoothly. They want to contribute to the family income through different means of indoor activities within their capacity. Similarly, the association of women having high annual income is also high because they can easily afford the cost for required infrastructure viz., rearing house, rearing appliances and engagement of hired labor.

Constraints: In the study, efforts were also made to identify some major constraints related to participation of women in eri culture. Some of the major constraints documented during the study are discussed below.

Lack of Separate Rearing House: It was observed that majority of the farmers do not have a separate rearing house. As a result, they use to brush very less quantity of dfls (only 5-15 dfls per crop) in a corner of their living house.

Lack of Adequate Plantation: Although, the plantation is a primary requirement for rearing of eri silkworm, majority of the farmer do not have systematic plantation for rearing of silkworms. They use to collect leaves from naturally grown castor or kesseru plants from different places nearer to their home. As a result, the farmers cannot take up the rearing in every season regularly. These farmers can conduct only 2-3 crops instead of 5-6 crops in a year.

Lack of Improved Technological Knowledge: Most of the farmers are not aware of the improved rearing technologies viz, high yielding silkworm variety, disinfection, improved rearing technology, etc. This results in low production of cocoons and generates low income.

Inadequate Time: In case of the women belong to very low income group, it is obligatory to engage themselves in agricultural field for certain works like transplanting of rice, weeding, harvesting, etc. Sometimes, they use to works at others agriculture fields by taking wages. As a result, this group of women cannot participate continuously in the eri culture.

CONCLUSION

From the present study, it may be concluded that the rural women play a significant role in eri culture. Although, their participation is minimum in host plant cultivation but maximum in silkworm rearing and post rearing activities. Further, the women play major role in taking decision on different activities. The study can also be concluded that participation of women in eri culture have significant association with her marital status and annual income. As the women contributes a lot in socio-economic development of rural sector through eri culture, the rural women should be assisted financially for construction of rearing houses, development of adequate plantation, procurement of rearing appliances, etc through different sericultural development schemes. Besides, they should be properly trained on improved technologies through imparting training programme for further enhancing their participation.

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