

Empowerment of Women Through Tasar Sericulture Activities in Jharkhand State

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ABSTRACT: Jharkhand is a newly created state in India, rich in forest and tribal population. The State is known for tasar sericulture and production of highest tasar silk in India. The State Department of Handloom, Sericulture and Handicraft (DHS&H), has been striving hard for promotion of sericulture in the state by launching several projects. Jharkhand Silk Textile and Handicraft Development Corporation Ltd (Jharcraft) in the state is responsible for promoting post cocoon sericultural activities from cocoon to fabric for livelihood enhancement of rural and tribal population. During 11&12th plan, the department has implemented the Central Silk Board (CSB) sponsored project and its own programme in tasar sericulture for rural poor and tribal population. The department has established common facilities center in areas where sericulture is practiced widely. Jharcraft used these facilities for empowerment of women by organizing training, facilitating from reeling to fabric making and create marketing network of products. The Jharcraft provides raw material like silk cocoons to reelers and buy back of the silk yarn. Further, the silk yarns are supplied to weavers and the women fabric is procured back. This fabric is then supplied to artisans with necessary raw materials to add value to the fabric in the form of surface ornamentation such as tribal painting, Zardori work, Kantha embroidery, Tie & Dye etc. and buys it back at fixed price. The Energy and Resources Institute (TERI) evaluated the impact of the project. In the course of assessment of impact, 248 beneficiaries were randomly selected comprising, reelers (80) weavers (85) and artisans (83) representing four districts namely, Saraikela-Kharswan, Godda, Khunti and Ranchi. These respondent beneficiaries were interviewed with structured questionnaire in each of the segment. This paper specifically deals with post cocoon activities only. Analysis revealed that the project which are implemented have contributed to empowerment of women through training, creating network for marketing, and income generation. Among the interviewed, 91.12% were trained. The annual income of the reelers is Rs. 20,000 to 25,000, weavers is Rs. 50,000 to 60,000 and the artisans is Rs. 10,000 to 50,000. On an average, based on the number of days of job on hand per month and production output, the beneficiaries have realized an income ranging from Rs. 26,000 to 41,000 per annum. The income so realized, is in addition to their regular income of the family. This has enabled the beneficiaries to get jobs in local and surrounding areas, earn reasonably by making use of their free time by utilizing the facility available without any investment. This paper describes the methodology of the study, socio economic background, types of support given to women, benefits from the sector, employment opportunities, socio economic improvement of women etc.

Key words: Tasar, Silkworm, Sericulture, reeling, Jharkhand, weaving, empowerment, artisan, cocoon, silk

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I. INTRODUCTION

Sericulture is an agro based cottage industry, providing income and employment generation to the rural poor and tribes in Jharkhand and many other states in India. Jharkhand State produces the highest quantity of tasar silk in the country with a production of 2001.40 tonnes in 2013-14 (sources: DoHS & H) and approximately 1,65,000 families are involved in silk cocoon rearing across 17,000 villages in 24 districts of Jharkhand (sources: DoHS&H). Jharkhand has tropical moist deciduous forests with red loamy soil and tropical climate which is ideal for tasar culture and for developing serigenous food plants for tasar rearing. Tasar culture is a subsidiary occupation of the tribal population in the state. The State of Jharkhand is the leading tasar silk producer in the country and accounts for nearly 60% of the total production in India. Considering the quick

income generation capacity, there is good scope for expansion/strengthening of sericulture activities so as to provide additional income for the rural and tribal poor in the state.

The implementing agency is DoHS&H, which comes under the Department of Industries (DoI), in addition to Central Tasar Research and Training Institute (CTR&TI) at Ranchi, Raw Material Bank at Chaibasa, Jharcraft etc. The main objective of the government is to promote and encourage growth of Sericulture, Handicraft, Handloom, Khadi and village industries etc, in rural areas for creating employment generation and utilization of local resources. To achieve the above objectives, the Government of Jharkhand has initiated various Sericulture development schemes with support from the Central Silk Board (CSB) in the state to improve the socio economic conditions of the people. TERI carried out an impact assessment of the above schemes which was supported by DoHS&H, Department of Industry during 2014-15.

Sericulture is a household activity and the involvement of family members and contributions of women in carrying out sericulture is widely accepted. As a cottage industry, sericulture provides ample work for women in rural areas, particularly in silkworm rearing and reeling, spinning, weaving, while men largely work in the field. The involvement of women in different activities of sericulture is about 53 % and their contribution in the on-farm activities understandably is lower than that in post-cocoon activities[2]. Usha Rani (2007) in one of her studies showed that the establishment of one acre mulberry garden for rearing 300 dfls (disease free layings) of silk worms in two months generates 96.36 person days of employment, of which 72.70 percent are women [3]. According to one statistical analysis submitted at a National Conference on "Women in Sericulture" (held at Mysore on 16th and 17th March, 2007), it can generate employment for up to 11 persons for every kg of raw silk produced, out of which more than 6 persons are women. Sericulture is the best occupation for women in changing situations of their family income[4].

The objectives of the study includes, understanding the impact, adaptation mechanism, strength and weakness schemes, socio-economic status, useful and acceptance of the schemes by the beneficiaries. The study was carried out by collecting secondary data, primary information and discussions with various stakeholders.

II. METHODOLOGY

The study was carried out in four districts based on the number of beneficiaries available across the state and were selected in consultation with the department. Totally 248 beneficiaries were selected for the study, including 80 reelers/spinners in Saraikela-Kharswan and Ranchi districts, 85 weavers in Godda and Saraikela – Kharswan districts and 83 artisans in Saraikela-Kharswan and Khunti districts. In addition, the study was carried out in cocoon banks and Common Facilities Centers (CFCs). Discussions were held with different stakeholders such as Director, Joint Director, Project officers, Pilot Project Officers (PPO), and other relevant officers from the State government, various Common Facility Centers, Cocoon Banks. Information was also gathered on the implementation mechanism and usefulness of the schemes.

Fifty types of questionnaires were prepared for collection of primary data based on stakeholders such as questionnaires for reelers and spinners, weavers, artisans, CFC and cocoon banks, checklists for the officers and faculty. These questionnaires were pilot-tested with concerned stakeholders and modified based on the learning from the sample survey in the field.

III. RESULTS AND DISCUSSIONS

Growth of sector: The study indicated that the number of farmers engaged in tasar culture had increased from 7,813 in 2007-08 to 165,000 farmers in 2013-14. Similarly, the number of villages which had taken up tasar culture had increased from 1,356 to 16,997 villages from 2007-08 to 2013-14. The quantity of DFLs brushed in 2007-08 was 23.65 lakhs, and this had increased to 208.28 lakhs in 2013-14. The total quantity of cocoons produced by farmers was 1,414 lakh cocoons in 2007-08, and this had increased to cocoon production of 15,327 lakhs in 2013-14. The quantity of silk produced in 2007-08 was 143 tonnes and this had increased to 2,001.4 tonnes in 2013-14. These trends indicate that there has been more than 10 times increase in the output of tasar sericulture. There are 16,000 reelers/spinners in 14 districts, 40,029 weavers in the state and 40,000 artisans in 24 districts. The Government has created many useful infrastructure such as 271 common facilities centres and 25 cocoon banks.

Socio economic background of Beneficiaries:

The government has started several activities such as establishment of common facilities center, training for reelers/spinners, weavers and artisans under the women empowerment programmes, developed market linkages through Jharcraft, etc.

About 68.5% of the respondents belonged to Other Backward community (OBC) and 12.1% of respondents belonged to the tribal community (ST). The involvement of tribal folk is less in the post cocoon sector compared to the pre-cocoon sector. Among the respondents, 52.42% of them belonged to a family of 3-5 members while 37.90% had 6-8 members in their families. About 18.55% of respondents were illiterate and this

is better compared with the pre-cocoon sector. About 41.53 % the respondents were landless, 42.74 % of respondents own less than two acres, and about 13.31% respondents own two to five acres. About 2.42% of the respondents were medium farmers.

About 41.13. % of the respondents expressed that their main occupation was agriculture and secondary occupation was sericulture. About 33.87% of the respondent said that their occupation was weaving, reeling and artisans. 14.11% of the respondents were working mainly as general labourers.

Average annual income of the respondents ranged from Rs. 10000 to Rs. 25000 for 24.60% of families of the respondents. Income of about 21.77% of respondents was from Rs. 25000 to Rs. 50000. The income of about 38.31% was less than Rs. 10000 per annum excluding income from sericulture activities.

Common Facility Centres (CFCs)

CFCs have been established by the DoHS&H, Department of Industries. The main objectives of the establishment of CFCs is to create common facilities for converting cocoon into silk and fabric, to create backward and forward marketing linkages and to create self-employment for women at village level. At present, 271 CFCs have been established with 100% contribution from the State government. The women have developed a sense of ownership, increased their skills and freedom to work at their own places. Working at CFC means an additional income for their family and it allows them to work during free time. Moreover, women are able to work in their native place or locality and have continuous employment.

Training of women:

Jharkhand Silk Textile and Handicraft Development Corporation Ltd. (Jharcraft) is a Government of Jharkhand undertaking Industry Department. Jharcraft is the backbone for developing sericulture in the State, especially post-cocoon activities and to meet their objectives. Jharcraft has been providing residential training, develop the market linkages and developed the organised market for selling end product.

The Jharcraft provides residential training to each group for 30 days for reelers/ spinners and weavers under empowerment programme. Trainers are provided facilities like lodging, boarding and stipend of Rs.50 per day. The reeling/ spinning and weaving units are operated and maintained by Jharcraft. After the training, Jharcraft provides them reeling/spinning and weaving work in their respective villages or surrounding villages, where Common Facilities Centre (CFC) exists. About 1,800 groups of reelers/spinners have undergone training and 40,029 people are involved in weaving, out of them 17,741 people were trained under the women empowerment programme (Sources: DoHS&H).

Surface ornamentation programmes such as of Kantha work, Zardosi, tribal painting, Tie & Dye, Applique and Block painting for women for further value addition was provided during the 11th plan in the fabric clusters. Under this programme about 30,000 women were trained and this programme was implemented by Jharcraft. During the training period Rs. 1500 per month was paid as stipend to each trainee. The trainees were provided with one month training and two months on the job training. 30,000 women were trained in the 11th plan and in 12th plan it was proposed to train three lakhs women throughout the State.

Out of the 248 beneficiaries surveyed, about 91.12% were trained in reeling/spinning, weaving and artisan work and 8.87% did not participate in the training programmes due to various reasons. The details of the respondents who underwent the training programmes are shown in below table.

Table1: Details of respondents who have undergone training programmes

Parameters	Reelers /spinners	Weavers	Artisans	Total	%
Training undergone	75	70	81	226	91.12
Training Not undergone	5	15	2	22	8.87
Total	80	85	83	248	100

Sources: Primary data, TERI

Operation and Marketing

As mentioned earlier, Jharcraft is the backbone for development of sericulture especially post cocoon sectors such as marketing, operation and maintenance. The tasar cocoons are supplied by Jharcraft at fixed prices to all the reeling groups. The silk, which is produced by reelers /spinners, is purchased back by Jharcraft at fixed price based on prevailing market rate. The wages for production of 1 kg silk is around Rs. 1000 based on quality. In case of spun silk, the wages for producing 1 kg is around Rs. 600. The Jharcraft transfers the amount to reelers' bank account after deducting the cocoon prices based on quantity of silk produced and number of cocoons procured for the silk reeling.

In case of weaving, the handloom machine, which is operated manually and developed by Jharcraft are used by weavers. The silk yarn is given by Jharcraft to all the reeling groups. The fabric which is produced by weavers are collected by Jharcraft. The wages for production of one meter is an average of Rs. 40 to 50.

In case of artisans, the raw materials such as fabric, silk, thread, designing equipment, colours, paints and other necessary equipment are provided by Jharcraft. The design is decided by Jharcraft and handed over to the supervisor or master artisan through the concerned staff along with raw materials. The cost is fixed by Jharcraft based on the design and type of work involved. The workers take the raw materials along with the design and work in their homes within the stipulated period. After the work is completed, the supervisors or master artisans check the designed materials and send it to the head office for releasing their payment.

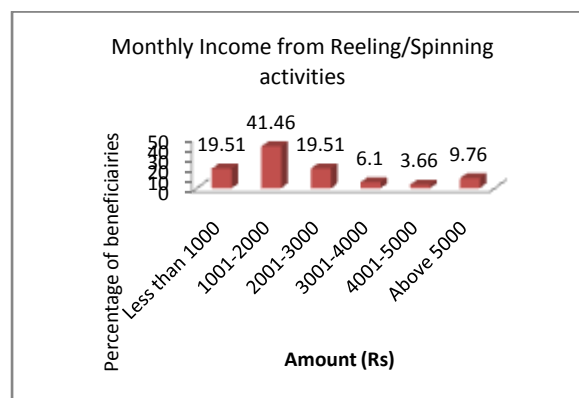
Income generated from activities:

Reeling: There are 16,000 reelers/spinners in the state. About 78.75% of the workers work for 21-26 days per month and 15 % workers work more than 26 days per month. Only a few workers work less than 20 days in reeling activities. About 73.75 % of the workers work for 8-10 months per annum and they do not work during crop harvesting and other agriculture activities. The rest of them (26.75 %) work for more than 10 months. Some time, Jharcraft/ department are not able to supply cocoons for reeler/groups due to insufficient cocoon production by famers. About 46.25% of the workers had produced less than 100gms silk per day, about 31.25% of respondents produced 100 to 200 gms silk, and the rest produced more than 200 gms silk per day. The Jharcraft provides tasar cocoons at a fixed price to the reeling group or each reeler. The reeled silk is collected by Jharcraft and tested for quality. After testing the quality, payment is made based on quantity of silk produced and transferring amount to the reelers bank account



Figure 1: Women involved in reeling activities in village at Saraikela-Kharswan district in Jharkhand state

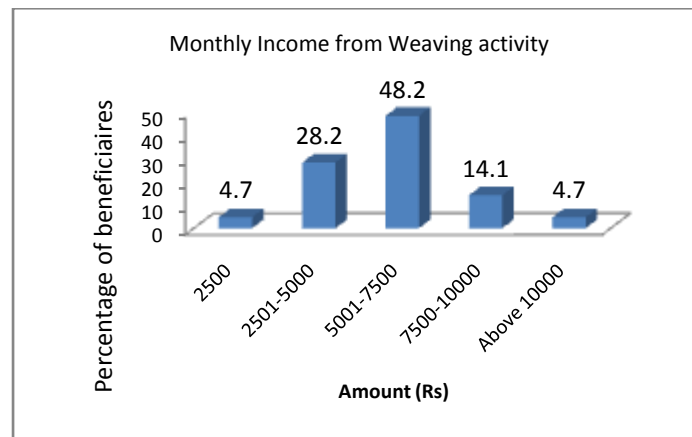
The income realized from reeling/spinning activities is shown in the graph below. About 38.75% of the respondents earned an income of Rs. 1,000-2,000 per month, 36.25% earned Rs. 2,000-3,000 per month and 12.5% respondents earned about Rs. 4,000 per month and the remaining 3.75 % earned about Rs. 3,000-4,000 per month from reeling activities. This is an important income source for their family. Each of them were earning around Rs.25,000 annually along with their regular income, without making any investment and without commuting very far for work. The incomes earned by worker are shown in the graph.



Most of the respondents felt that reeling work had improved the financial independence of women, self-confidence to some extent, provided them with new skills of reeling and spinning, and empowered them economically.

Weaving: In case of weaving, 40,029 people are working in the weaving sector in the state as on 2012-13 (source: DoHS&H). The CFC includes handloom and other necessary facilities for weaving for 20 workers. The fabric which is produced by weavers is collected by Jharcraft. The wages for production of one meter is an average of Rs. 40 to 50. About 84.71% of the workers work for 21-26 days per month. 3.53 % of the workers work for more than 26 days in a month and about 12.94% work for 16-20 days per month. Sometimes Jharcraft is not able to supply raw materials due to non-availability of stock and less production by reelers. The monthly income earned from weaving activities is shown in the graph below. About 28.2% earn Rs. 2501 to 5000 per month and about 48.2 % of respondents earn about Rs. 5001-7500 per month, 14.1 % earn Rs. 7501-10000 per month and the rest (4.75 %) earned more than Rs. 10000 per month. The average earnings per month from ranges from Rs.5000 to 7000 per month.

Weaving is an important income source for the families. Each of them earn more than Rs. 50,000 annually along with their regular income, without making any investment and without commuting very far for work. The weaving scheme comes under the women empowerment programme and it is widely accepted by people across the State.



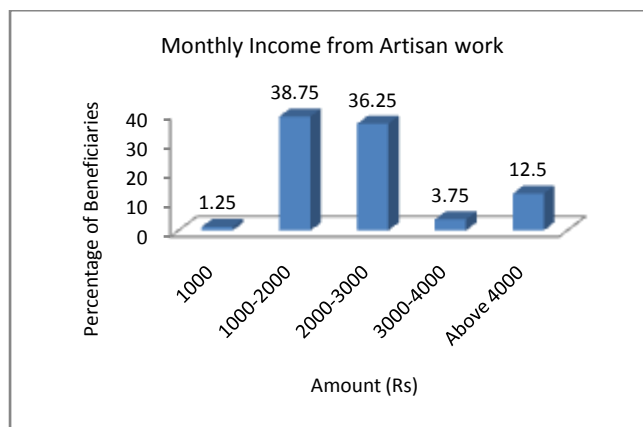
Artisans:

About 39.76% work during free time and 26.51 % during part time after completing their main work (domestic and agriculture work). This work is considered to have more advantages because they can work at their homes during free time. About 32.53% of respondents were working full time. Most of the people do not work during agriculture and crop harvesting season.



Figure 2: Women involved in designing of cloth at Saraikela- Kharswan district in Jharkhand state

The below graph shows the monthly income earned from artisan work by the respondents. About 19.51% of the respondents earned less than Rs.1000 per month, 41.46% earned between Rs.1000-2000 and they worked during free time and part time, 19.51% earned between Rs. 2000 to 3000 per month, 6.1% earned Rs. 3000- 4000 and 9.76% earned about Rs. 5000 per month. The average earning per month ranges between Rs. 2500 to 4000 and the average earning per annum per person ranges between Rs. 10000-50000. Most of the respondents felt that this work had improved the financial independence of women, self- confidence to some extent, provided them with new skills and empowered them.



IV. CONCLUSIONS

The main objectives of the promotion of tasarseri culture by the Jharkhand government is to improve the socio economic condition, generate employment opportunities and empowerment of women through training and create employment opportunity at the local level. Based on the assessment, the government intervention has helped to generate additional income for them with less investment. As there are limited opportunities to get work locally and surrounding areas, these programmes helped to improve their economic status. Tasar silk sector is not only important for generating rural employment and preventing rural migration but also of immense value for protection and preservation of ecology, heritage and socio-cultural values

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