Role of CRPs in tasar sector: Present status and future strategies

V. Mittal*†, J.P. Pandey†, J. Binkadakatti†, R.K. Khandai†, S. Alam† and K. Sathyanarayana†

†Tasar Development Foundation (TDF), Deoghar-814 112, India
‡Central Tasar Research and Training Institute, Ranchi-835 303, India

*Corresponding Author Email: vishalmittal777@yahoo.com  †ORCID: https://orcid.org/0000-0001-8662-7477

Abstract

Aim: Employ of CRPs for utilization in tasar sericulture by needy organizations under various government schemes / developmental projects.

Methodology: Community Resource Persons were nurtured under ISDS (Integrated Skill Development Scheme) of CSB and MKSP Tasar projects as a sector specialist cadre who works as specialist of knowing the cutting edge technologies of tasar culture and they will bring the theory of change further to unskilled community to build their skills and creating awareness about the new scientific practices of Tasar Sericulture and building their vision and understanding around communities. CRPs were trained collectively by PRADAN and CSB. Selection of beneficiaries, organizing them into Tasar Vikas Samities (TVSs), signing of agreement with beneficiaries, support for developing infrastructure, etc., during early period of the project, to get maximum project output and keep the tribe's interested in Tasar culture, utilization of the existing Tasar food plants in the forest areas/ raised under other schemes, Skill up-gradation, handholding support to the beneficiaries in creating activity groups were the primary activities achieved by engaging Community Resource Persons (CRP). Disease monitoring, technological support, etc., were monitored by these groups of resource person’s.

Results: A meticulous and customized evaluation programme of the CRPs was accomplished during 2022-23. A total of 479 CRPs nurtured under the special projects in the states of Jharkhand, Bihar, Chhattisgarh, Odisha and West Bengal, were accredited jointly by CTRTI Ranchi, Birsa Agricultural University Ranchi, KVKs and TDF-PRADAN Deoghar at field level. CRPs from 65 states covering 18 districts, 46 blocks, and 248 villages consisting 340 males & 139 females participated in evaluation & accreditation of CRPs. It was found that 36.74 percentage of CRP’s had expertise in rearing activities followed by grainage and rearing (33.40%) and grainage (11.27%), however; only 8.56 % of the CRP’s had expertise in post cocoon technology. The results of assessment of Community Resource Persons (CRPs) based on different criteria revealed that the CRP’s having expertise in both grainage & rearing scored 35.95 which is highest among the CRP’s. Whereas lowest score of 30.65 was noticed with the CRP’s who had expertise in Grainage. With respect to different criteria for assessment of the CRP’s expertise in Tropical Tasar under the criteria of timeliness and sincerity; CRP’s scored 7.07 out of 10 score followed by community mobilization (6.83) & on field technology support (6.79).

Interpretation: As Tasar sector has attracted attention of many funding agencies in the recent past, keeping in view the need of horizontal expansion and shortage of manpower with the State Sericulture departments and others parallel institutions, CRPs can play a vital role based on their skill sets for further utilization by needy organizations under various government schemes/developmental projects.

Key words: Community resource person, Extension, Tasar sector, Training

Introduction

Tasar silkworm, *Antheraea mylitta* Drury (Indian tropical tasar) are polyphagous and reared on forest plantation of *Terminalia* species and *Shorea robusta* (Sal). Though a steady increase has been observed in the Tasar silk production (except last two years) in the country over the years, yet there exists tremendous potential of enhancing silk production, however, the same has not been exploited due to non-adoption of available technologies and lack of input availability. Dependency on forests and remote location, lack of institutional, extension and market support, non-availability of key inputs locally etc., are major impeding factors in tasar promotion. Public extension services dealing with a large area and large population are mostly supply driven having their own limitations in reach and effectiveness, warranting the need to look for an alternate sericulture extension and support system in Tasar sector. Some private extension services like (Shamshad et al., 2020).

The pressing need to engage with the community to build their skills, creating awareness about the new scientific practices of doing in the field of Tasar Sericulture and building their vision and understanding around collectives was well understood by all the agencies concerned after Special SGSY Projects. Central Silk Board sanctioned ISDS (Integrated Skill Development Scheme) project to PRADAN for Skill Development for the existing producers under special SGSY projects in Bihar and Jharkhand. The training was provided jointly by PRADAN and CSB and skilled persons viz., Community Resource Persons (CRP) were utilized in the scaling up initiatives. Community resource persons (CRPs) are as a sector specialist cadre who work with a belief that engagement at cutting edge will bring the theory of change to further engage them with the community to build their skills, making them aware about new scientific practices of doing in the field of Tasar Sericulture as notified by Shantanu (2016). Further, CRPs, as a resource created for the local community, are suggested, as Master trainers initially and further to serve all categories of practitioners in training, extending services, planning, monitoring, etc (Odera, 2018; Toti and Aiholli, 2020). Personnels from the lead/innovative/progressive farmers, with a standing in the community would be efficient in disseminating new technologies and lack of input availability. Dependency on forests and remote location, lack of institutional, extension and market support, non-availability of key inputs locally etc., are major impeding factors in tasar promotion. Public extension services dealing with a large area and large population are mostly supply driven having their own limitations in reach and effectiveness, warranting the need to look for an alternate sericulture extension and support system in Tasar sector. Some private extension services like (Shamshad et al., 2020).

The Joint Team has carried out the evaluation of CRPs based on the evaluation questionnaire at major clusters in the said states and graded them on their performance. The evaluation and accreditation of about 479 Community Resource Persons (CRPs) from the states of Jharkhand, Bihar, Chhattisgarh, Odisha and West Bengal were conducted during July & August 2022. During the evaluation and accreditation process the trained CRPs were categorized sector specialist on the basis of their expertise and experience such as disease monitoring, grainage, grainage & rearing, plantation, rearing, post cocoon technology and utilization of the existing Tasar food plants in the forest areas/raised. Assessment of CRPs was also done based on different criteria such as community mobilization, imparting training to community, on field technology support, community’s problem solving and timeliness and sincerity.

Results and Discussion

Tasar based employment primarily focus on women, tribal and below poverty people. Introducing accredited Community Resource Persons (CRPs) in the Tasar silk industry is first of its kind in sericulture sector. Through meticulous evaluation process in 2022-23, total 479 CRPs nurtured under the special projects in the states of Jharkhand, Bihar, Chhattisgarh, Odisha and West Bengal, were accredited jointly about 50 house-holds from same village or adjoining villages; He/she should interact closely with each house hold and provide hand holding support; Formation of activity based groups in the village and supporting them for effective functioning; He/She is responsible for extension and ensuring the all the practices pertaining to Rearer/Graineur is adopted effectively; He/She must be a good mobiliser and motivator for the village allotted and He/she is the agent for transformation process and will monitor all the activities closely.

Materials and Methods

CTR&TI, Ranchi has taken up Evaluation & Accreditation of the CRPs through a customized programme jointly by CTRTI, BAU and TDF/ PRADAN in continuation to the MoU entered between BAU, Ranchi & CTRTI, Ranchi on 16-06-2022. The Joint Team has carried out the evaluation of CRPs based on the evaluation questionnaire at major clusters in the said states and graded them on their performance. The evaluation and accreditation of about 479 Community Resource Persons (CRPs) from the states of Jharkhand, Bihar, Chhattisgarh, Odisha and West Bengal were conducted during July & August 2022. During the evaluation and accreditation process the trained CRPs were categorized sector specialist on the basis of their expertise and experience such as disease monitoring, grainage, grainage & rearing, plantation, rearing, post cocoon technology and utilization of the existing Tasar food plants in the forest areas/raised. Assessment of CRPs was also done based on different criteria such as community mobilization, imparting training to community, on field technology support, community’s problem solving and timeliness and sincerity.

Community resource person is a active person, having quick learning abilities and exhibits good communication skills. He/she must be preferably from the tribal community; He/she must be from the same village and preferably from the tasar rearing family having the knowledge of tasar activities; He/she should know the local languages; He/she should be literate. (7th class-10th class); He/she may be progressive farmer; He/she must be proposed by the community; He/she is responsible for

---

Table 1: CRPs trained and empanelled in different states

<table>
<thead>
<tr>
<th>States</th>
<th>Number of CRPs trained</th>
<th>CRPs empanelled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jharkhand</td>
<td>513</td>
<td>189</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>194</td>
<td>79</td>
</tr>
<tr>
<td>Odisha</td>
<td>100</td>
<td>47</td>
</tr>
<tr>
<td>West Bengal</td>
<td>158</td>
<td>64</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>325</td>
<td>48</td>
</tr>
<tr>
<td>A.P.</td>
<td>102</td>
<td>54</td>
</tr>
<tr>
<td>Bihar</td>
<td>54</td>
<td>51</td>
</tr>
<tr>
<td>Grand Total</td>
<td>1446</td>
<td>532</td>
</tr>
</tbody>
</table>
by CTRTI Ranchi, Birsa Agricultural University Ranchi, KVKs and TDF-PRADAN Deoghar at field level. CRPs from five states covering 18 districts, 46 blocks, and 248 villages consisting 340 males and 139 females participated in evaluation and accreditation of CRPs. Details of the CRPs accredited is furnished in Table 1-4; Fig 1-6. The accredited CRPs possess required knowledge and skills in establishment of Tasar host plantation, maintenance, integrated cropping practices, management of diseases of tasar host plants/silkworm, controlling pests of tasar host plants, disinfection, hygiene, tasar silkworm rearing, silkworm seed production, post cocoon technologies etc. The accredited CRPs can be engaged on cost basis by the concerned DOS and other developmental agencies/stakeholders for expansion and introduction of tasar activities based on their specialization in plantation, rearing, seed preparation, reeling and other areas, to develop them as viable

Table 2: Status of evaluation and accreditation of Community Resource Persons

<table>
<thead>
<tr>
<th>States</th>
<th>Districts</th>
<th>Blocks</th>
<th>Villages</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jharkhand</td>
<td>8</td>
<td>24</td>
<td>135</td>
<td>219</td>
<td>62</td>
<td>281</td>
</tr>
<tr>
<td>Bihar</td>
<td>1</td>
<td>4</td>
<td>28</td>
<td>47</td>
<td>12</td>
<td>59</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>5</td>
<td>10</td>
<td>28</td>
<td>29</td>
<td>17</td>
<td>46</td>
</tr>
<tr>
<td>Odisha</td>
<td>2</td>
<td>4</td>
<td>27</td>
<td>30</td>
<td>8</td>
<td>38</td>
</tr>
<tr>
<td>West Bengal</td>
<td>2</td>
<td>4</td>
<td>30</td>
<td>15</td>
<td>40</td>
<td>55</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>46</td>
<td>248</td>
<td>340</td>
<td>139</td>
<td>479</td>
</tr>
</tbody>
</table>

Table 3: List of accredited Community Resource Persons (CRPs) in Tropical Tasar Culture

<table>
<thead>
<tr>
<th>Districts</th>
<th>Number of villages</th>
<th>Community Resource Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>State: Jharkhand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deoghar</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Gopikander</td>
<td>03</td>
<td>10</td>
</tr>
<tr>
<td>Kathikund</td>
<td>13</td>
<td>44</td>
</tr>
<tr>
<td>Masalia</td>
<td>09</td>
<td>26</td>
</tr>
<tr>
<td>Dumka</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramgarh</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Raneswar</td>
<td>03</td>
<td>04</td>
</tr>
<tr>
<td>Saraiyahat</td>
<td>06</td>
<td>12</td>
</tr>
<tr>
<td>Shikaripara</td>
<td>06</td>
<td>08</td>
</tr>
<tr>
<td>East Singhbhum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dumaria</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Bengabad</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Boarjore</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>Giridih</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Godda</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>Poraiyahat</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Sundarpahari</td>
<td>24</td>
<td>42</td>
</tr>
<tr>
<td>Jamtara</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatehpur</td>
<td>05</td>
<td>07</td>
</tr>
<tr>
<td>Kundahit</td>
<td>03</td>
<td>04</td>
</tr>
<tr>
<td>Masalia</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Pakur</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amrapara</td>
<td>01</td>
<td>03</td>
</tr>
<tr>
<td>Saraikela-Kharsawan</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>Kharsawan</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>Kuchai</td>
<td>24</td>
<td>62</td>
</tr>
<tr>
<td>Chakradharupur</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>West Singhbhum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jagannathpur</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Jhikpani</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>Tanbharag</td>
<td>02</td>
<td>03</td>
</tr>
<tr>
<td>Total</td>
<td>135</td>
<td>281</td>
</tr>
</tbody>
</table>

State: Bihar

<table>
<thead>
<tr>
<th>Districts</th>
<th>Number of villages</th>
<th>Community Resource Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barahat</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Bauni</td>
<td>05</td>
<td>10</td>
</tr>
<tr>
<td>Chandan</td>
<td>04</td>
<td>07</td>
</tr>
<tr>
<td>Katoria</td>
<td>18</td>
<td>41</td>
</tr>
</tbody>
</table>

Table continue
Table 4: Distribution of Community Resource Persons (CRPs) based on Tropical Tasar activities

<table>
<thead>
<tr>
<th>Activity of CRPs/Criteria</th>
<th>Number of CRPs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grainage</td>
<td>54</td>
<td>11.27</td>
</tr>
<tr>
<td>Grainage &amp; rearing</td>
<td>160</td>
<td>33.40</td>
</tr>
<tr>
<td>Plantation</td>
<td>48</td>
<td>10.02</td>
</tr>
<tr>
<td>Rearing</td>
<td>176</td>
<td>36.74</td>
</tr>
<tr>
<td>Post Cocoon Technology</td>
<td>41</td>
<td>8.56</td>
</tr>
</tbody>
</table>

indicated that, 36.74 percentage of CRP’s had expertise in rearing activities followed by Grainage and Rearing (33.40%) and Grainage (11.27%). Only 8.56 % of the CRP’s had their expertise in Post Cocoon Technology.

Table 5: Assessment of Community Resource Persons (CRPs) based on different criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Number of CRPs</th>
<th>Community mobilization</th>
<th>Imparting training to community</th>
<th>On field technology support</th>
<th>Solving Community problems</th>
<th>Timeliness and sincerity</th>
<th>Total score (Avg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grainage</td>
<td>54</td>
<td>6.52</td>
<td>5.93</td>
<td>6.28</td>
<td>5.91</td>
<td>6.02</td>
<td>30.65</td>
</tr>
<tr>
<td>Grainage &amp; rearing</td>
<td>160</td>
<td>7.34</td>
<td>6.58</td>
<td>7.45</td>
<td>7.13</td>
<td>7.43</td>
<td>35.93</td>
</tr>
<tr>
<td>Plantation</td>
<td>48</td>
<td>6.06</td>
<td>5.67</td>
<td>6.33</td>
<td>6.15</td>
<td>8.31</td>
<td>32.52</td>
</tr>
<tr>
<td>Rearing</td>
<td>176</td>
<td>6.76</td>
<td>5.78</td>
<td>6.68</td>
<td>6.31</td>
<td>6.57</td>
<td>32.11</td>
</tr>
<tr>
<td>Post Cocoon Technology</td>
<td>41</td>
<td>6.83</td>
<td>6.04</td>
<td>6.79</td>
<td>6.53</td>
<td>7.07</td>
<td>35.15</td>
</tr>
</tbody>
</table>

indicated the assessment of Community Resource Persons (CRPs) based on different criteria, the results revealed that the CRP’s having expertise in both Grainage & rearing have scored 35.95 which is highest among the CRP’s. Whereas lowest score of 30.65 was noticed with the CRP’s who have expertise in Grainage. With respect to different criteria for assessment of the CRP’s expertise in Tropical Tasar (i.e., 1 to 10 scale/score basis), For the criteria Timeliness and sincerity, CRP’s scored 7.07 out of 10 score followed by community mobilization (6.83) and on field technology support (6.79).
business models. In view of the shortage of manpower in public extension system, efforts have been made to evaluate for accreditation of the nurtured (CRPs), who are playing major role in expansion, seed production, training and extension in tasar sericulture. CRPs keep the tribal's interested in Tasar culture, utilization of the existing Tasar food plants in the forest areas/raised under other schemes, upgrading skills, handholding support to beneficiaries in creation of activity groups, disease monitoring, technological support, etc.

As tasar sector has attracted attention of many funding agencies in the recent past, keeping in view the need of horizontal expansion and shortage of manpower with the State Sericulture departments and others parallel institutions, CRPs can play a vital role based on their skill sets for further utilization by needy organizations under various government schemes/developmental projects to make a meaningful difference in the lives of tribals and other associates of tasar culture in India.
Acknowledgment

The authors are grateful to the Central Silk Board, Ministry of Textiles, Government of India for providing valuable information and supporting idea.

Authors’ contribution: V. Mittal: Designed the study, involved in execution, investigation, analysis and manuscript preparation; J.P. Pandey: Involved in execution and investigation; J. Binkadakatti: Gave comments to improve the manuscript; R.K. Khandai: Involved in execution and fine-tuned data preparation; S. Alam: Gave critical comments to improve the manuscript; K. Sathyanarayana: Helped in execution and gave inputs.

Funding: Central Silk Board, Ministry of Textiles, Government of India.

Research content: The research content of manuscript is original and has not been published elsewhere.

Ethical approval: Not applicable.

Conflict of interest: The authors declare that there is no conflict of interest.

Data availability: Not applicable.

Consent to publish: All authors agree to publish the paper in Journal of Environmental Biology.

References


Shamshad, A., K. Sathyanarayana, A. Chakraborty and R.K. Khandai: Project completion report-Promotion of large scale Tasar sericulture based livelihoods in Jharkhand under Mahila Kisan


