



Plant Archives

Journal homepage: <http://www.plantarchives.org>

DOI Url : <https://doi.org/10.51470/PLANTARCHIVES.2024.v24.specialissue.020>

PLACEMENT STATUS AND FUTURE PROSPECTS OF PGDS (VANYA SILK) STUDENTS

Vishal Mittal*, Arnab Roy, Jagadjiyoti Binkadakatti, Jitendra Singh and N.B. Chowdary

CSB-Central Tasar Research and Training Institute, Ranchi-835303, Jharkhand, India

*Corresponding author's e-mail: vishalmittal777@yahoo.com

ABSTRACT

Central Silk Board (CSB), Ministry of Textiles, Government of India is organizing several training courses on sericulture development through its prestigious Research and Training Institutes to facilitate the State Sericulture Departments to meet their requirement of trained technical manpower for manning various sericulture development projects, schemes and to fill the gap of unemployment. As the manpower needs of different states are ageing, a good opportunity lies ahead to acquire trained manpower on sericulture development through these courses. The Structured Post Graduate Diploma Course in Sericulture (Vanya Silk) is of 15 month duration under semester scheme, inclusive of 3 month Intensive Practical Training orientation on Rural Work Experience Programme. The course commences from 1st July every year at Central Tasar Research & Training Institute at Ranchi, Jharkhand. The training in Sericulture (Vanya Silk) is imparted to the candidates sponsored by various agencies dealing with non-mulberry sericulture development and different sericultural states. The course is affiliated to Ranchi University, Ranchi, Jharkhand. So far since 1974-75, a total of 658 students have accomplished the credentials of PGDS (Vanya Silk) diploma with 97.98% passed result. However, during last fifteen years a total of 251 students representing 08 states viz. Andhra Pradesh, Arunachal Pradesh, Bihar, Jharkhand, Manipur, Meghalaya, Mizoram, Odisha have passed PGDS (Vanya Silk) and out of them 84 students have got their establishments in different capacities in government and private/contract basis.

Keywords: Tasar, PGDS (Vanya Silk), Placement, Future prospects.

Introduction

Sericulture is a labour intensive and agro-based rural industry. It has considerable potential to generate employment and income for the marginalized sections of the society, including the landless, marginal and small farm households and women. Agriculture engages 42% of the workforce in India but on millions of tiny landholdings (Anonymous, 2022; Ghose, *et al.*, 2014). Close to 70% of the 150 million landholdings are of a size not exceeding one hectare. For households cultivating such small pieces of land, agriculture alone cannot be the sole source of livelihood. They look for income and employment opportunities outside primary agriculture. Silk industry offers an excellent opportunity to several of them in five sequentially interrelated activities: (i) growing of food plants as a source of feed for silkworms, (ii) production of

silkworm eggs as primary input, (iii) rearing of silkworms to produce cocoons, (iv) reeling of cocoons to produce raw silk, and (v) weaving, printing and dyeing of fabric.

India is the second largest producer of silk in the world. Among the four varieties of silk produced in 2022-23, Mulberry accounted for 75.59% (27,654 MT), Tasar, 3.60% (1,318 MT), Eri 20.09% (7,349 MT) and Muga 0.71% (261MT) of the total raw silk production of 36,582 MT (Anonymous, 2022-23). Of these, tasar culture is an age-old traditional avocation of tribal and other downtrodden people, usually inhabiting in and around the forest areas of the country (Dwarakinath, 2006; Beera, 2000). It harbours high potential for gainful rural employment and remunerative income to the tribal populace. It is a profitable traditional subsidiary occupation that

requires least investment and high return (Mittal *et al.*, 2023).

Tasar silk is one of the important non-wood forest produce found mainly in the tropical forest of the country. It is obtained in the form of silk cocoons spun by sericigenous insect, *Antheraea mylitta* Drury feeding on the leaves of a variety of host plants. The people rear tasar silkworm on the forest trees, mainly Arjun (*Terminalia arjuna*), Asan (*T. tomentosa*) and Sal (*Shorea robusta*) which are abundantly available in the States of Jharkhand, Chhattisgarh, Orissa, Andhra Pradesh, West Bengal, Madhya Pradesh, Maharashtra, Bihar, Uttar Pradesh, Uttaranchal, Himachal Pradesh and North-Eastern region. Of late, with the advent of modern research findings, tasar silkworm is also being reared on the bushes of Arjun and Asan which are maintained in an organized manner as economic block plantation in fallow and private lands.

Tasar culture is essentially a forest and agro-based enterprise that covers agricultural and industrial activities. It comprises of cultivation of tasar host plant production and protection, silkworm rearing, production of eggs and cocoons, protection of silkworm, reeling, spinning, weaving and utilization of silk waste and other by-products. Besides production of silk, its role in biodiversity and forest regeneration and its ability of employment generation at all levels speak of the importance of tasar culture. The rich biological diversity of tasar silkworm is largely due to its wide range of distribution and foraging of silkworm on a variety of food plants. Tree plantation for tasar culture, like other afforestation work, also helps in preserving fragile sloppy lands and mountainous regions by preventing soil erosion.

The silk is the end product of tasar cocoons which is mainly utilized to make Tasar Fabrics, especially gents wear, readymade garments, *Malmal*, *Safa* or Turban cloth, *Sarees*, *Chaddar*, upholstery and furnishing fabrics, etc. All these products are mostly catering to the needs of export markets and the export of silk goods in the year was worth rupees 2829.88. In the recent times, tasar culture has opened up several avenues for establishing profitable rural enterprises, especially in the areas of silkworm seed production, yarn making, weaving, dyeing and production of diversified products from this unique silk. However, success of any enterprise depends upon the working skill, technical knowledge and know-how about forward and backward linkages.

The progress of any industry largely depends upon the involvement of well-equipped and technically sound human resource and also the continuous inflow

of trained manpower to provide technical knowledge and support to the stakeholders of the industry. It is projected to increase the country's tasar silk production to 6000 MT by the end of 2030 (Setty *et al.*, 2019). Therefore, keeping in view the growing demand for tasar silk and goals envisaged in the perspective plans of the States and Central Govt. for tasar silk production, the generation of trained manpower and refreshing their technical knowledge are the prime need, so that a continuous flow of trained human resource may be maintained for the growth of tasar industry. The CSB-Central Tasar Research & Training Institute (CSB-CTR&TI), Ranchi provides solely support to the tasar industry by taking up R&D programmes and generates technically skilled manpower.

Capacity building is to develop institutional capacity to meet a defined goal. A lack of capability would result in inability to meet the goals. The capacity building has two components – explicit which is clearly expressed like number of human resources needed to complete a task, and another is implicit which implies the capability of resources to complete a given task. The capacity building consists of improving human resource capability, improving technology, providing finances to access the provide needed resource, administrative and management capacity – range of skills needed in current staff or new staff, attitudes and motivation, statistical capability to monitor trend, periodic assessment relational skills (cooperate with others). The capacity building may be required at two levels like institutional viz., to meet organization goals and local viz., to meet local goals. Knowledge management is a discipline that promotes an integrated approach in identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. These assets may include databases, documents, policies, procedures, and previously un-captured expertise and experience of the individual workers. Knowledge management efforts overlap with organizational learning and may be distinguished from that by a greater focus on the management of knowledge as a strategic asset and a focus on encouraging the sharing of knowledge. It is an enabler of organizational learning. To meet the growing needs and expectations of tasar silk industry, CSB-CTR&TI generate human resource by imparting training through fifteen-month duration “Post-Graduate Diploma in Sericulture (Vanya Silk)” course affiliated to Ranchi University, Ranchi.

Methods

Data of PGDS (Vanya Silk) were retrieved from the annual reports and training division at CSB-

CTR TI, Ranchi, and reliable database for the current situation and trends during 1974-2022.

Placement of PGDS (Vanya Silk) for last Fifteen years (2006-2007 to 2021-22)

So far since 1974-75, CSB-CTR&TI, Ranchi has trained a total of 658 students have accomplished the credentials of PGDS (Vanya Silk) diploma with 97.98% passed result (Table-1). However, during last fifteen years a total of 251 students representing 08

states viz. Andhra Pradesh, Arunachal Pradesh, Bihar, Jharkhand, Manipur, Meghalaya, Mizoram, Odisha have passed PGDS (Vanya Silk) and out of them 84 students have got their establishments in different capacities like as Assistant Superintendent and Equivalent (Silk Cadre-Industries Department, GoJ), Insect Rearer and equivalent and Field Assistant in Directorate of Handlooms, Handicrafts and Silk, Govt. of Jharkhand and Central Silk Board, respectively in government and private/contract basis (Table-2).

Table 1: Post Graduate Diploma in Sericulture (Vanya Silk) at CSB-CTR&TI, Ranchi

Year	Seats Approved	Admission	Appeared in Exam	Passed	% Result
1974-75	20	10	10	07	70.00
1975-76	20	19	19	19	100.00
1976-77	20	22	22	22	100.00
1977-78	20	20	20	20	100.00
1978-79	20	27	27	27	100.00
1979-80	20	29	31	31	100.00
1980-81	20	33	35	33	94.29
1981-82	20	22	22	22	100.00
1982-83	20	21	21	21	100.00
1983-84	20	17	17	17	100.00
1984-85	20	06	06	06	100.00
1985-86	20	04	04	04	100.00
1986-87	20	15	15	15	100.00
1987-88	20	26	26	21	80.77
1988-89	20	07	07	07	100.00
1989-90	20	05	05	05	100.00
1990-91	20	19	19	19	100.00
1991-92	20	25	25	25	100.00
1992-93	20	11	11	08	72.73
1993-94	20	08	08	08	100.00
1994-95	20	08	08	08	100.00
1995-96	20	14	14	14	100.00
1996-97	20	10	10	10	100.00
1997-98	20	08	08	08	100.00
1998-99	20	-	-	-	-
1999-00	20	-	-	-	-
2000-01	20	03	03	03	100.00
2001-02	20	-	-	-	-
2002-03	20	10	10	10	100.00
2003-04	20	06	06	06	100.00
2004-06	20	-	-	-	-
2006-07	20	18	18	18	100.00
2007-08	20	07	07	07	100.00
2008-09	20	21	20	20	100.00
2009-10	20	18	18	18	100.00
2010-11	20	17	17	17	100.00
2011-12	20	11	11	11	100.00
2012-13	20	20	20	20	100.00
2013-14	20	16	15	15	100.00
2014-15	20	18	18	18	100.00
2015-16	20	13	13	13	100.00
2016-17	20	18	18	18	100.00

2017-18	20	15	20	15	100.00
2018-19	20	15	20	15	100.00
2019-20	20	18	20	18	100.00
2020-21	20	10	20	10	100.00
2021-22	20	15	20	14	93.33
2022-23	20	15	20	15	100.00
TOTAL	-	670	704	658	97.98

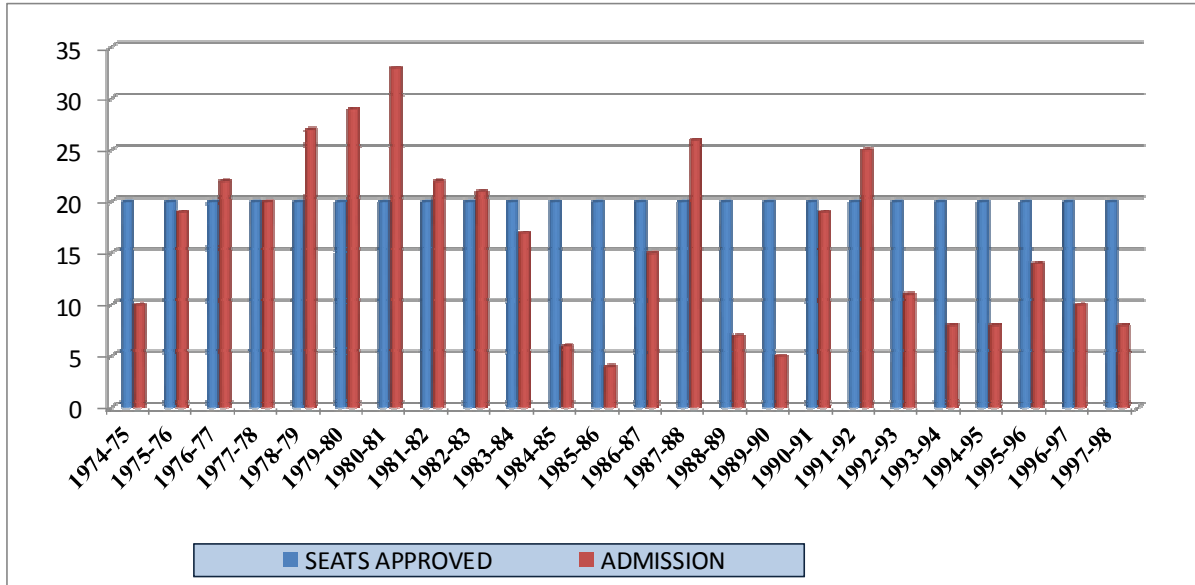


Fig. 1: Status of admission to the seat approved Post Graduate Diploma in Sericulture (Vanya Silk) during 1974-98

Figure 1 and 2 presents the association between seat approved and admission Post Graduate Diploma in Sericulture (Vanya Silk). Students who took entrance

exam for admission to Post Graduate Diploma in Sericulture (Vanya Silk) were more that the seat approved during 2008-09.

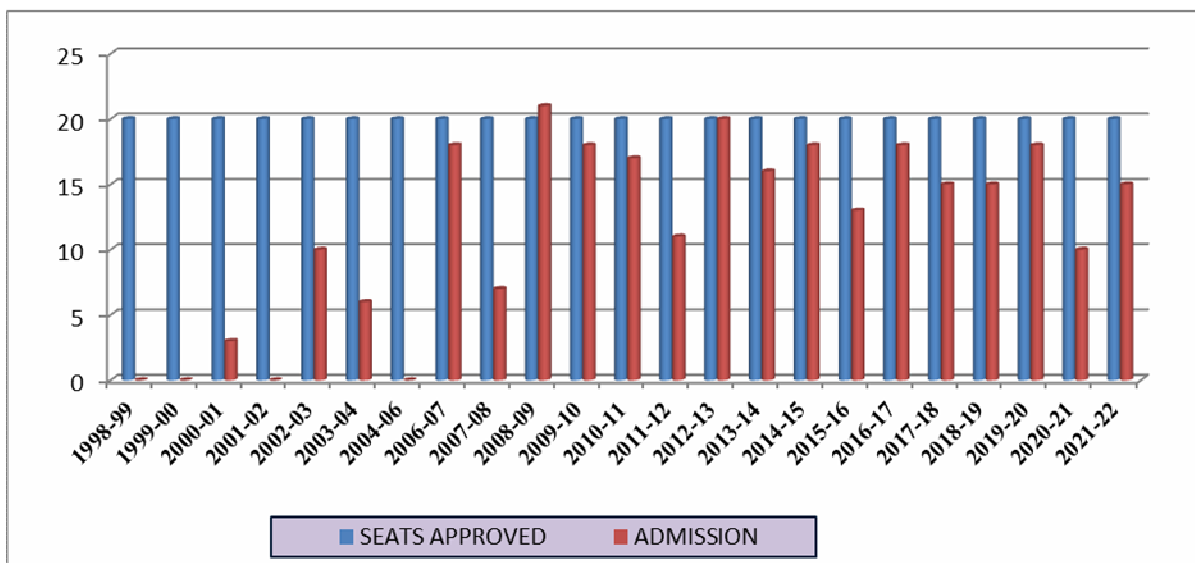


Fig. 2: Status of admission to the seat approved Post Graduate Diploma in Sericulture (Vanya Silk) during 1998-2022

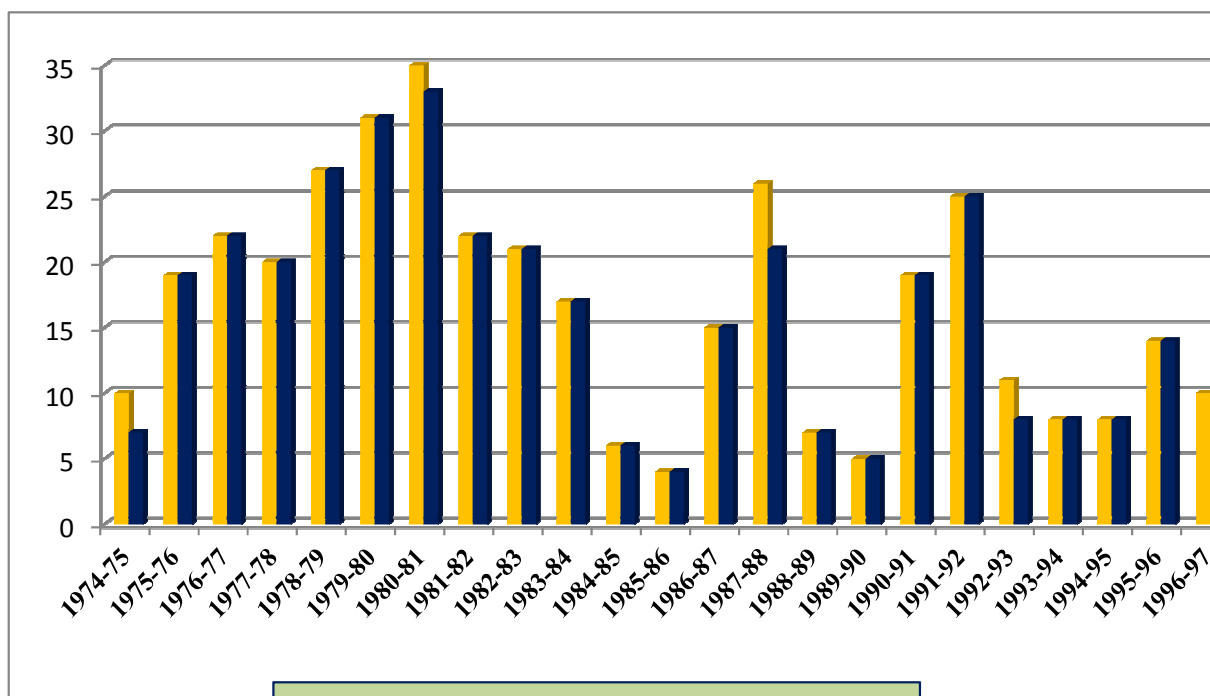


Fig. 3: Performance of Post Graduate Diploma in Sericulture (Vanya Silk) during 1974-98

Associations between passed in exam and appeared in exam were outstanding during the period of 1974 to 2016. In this study, it has been noticed that both student employability and success rate are important determinants of admission.

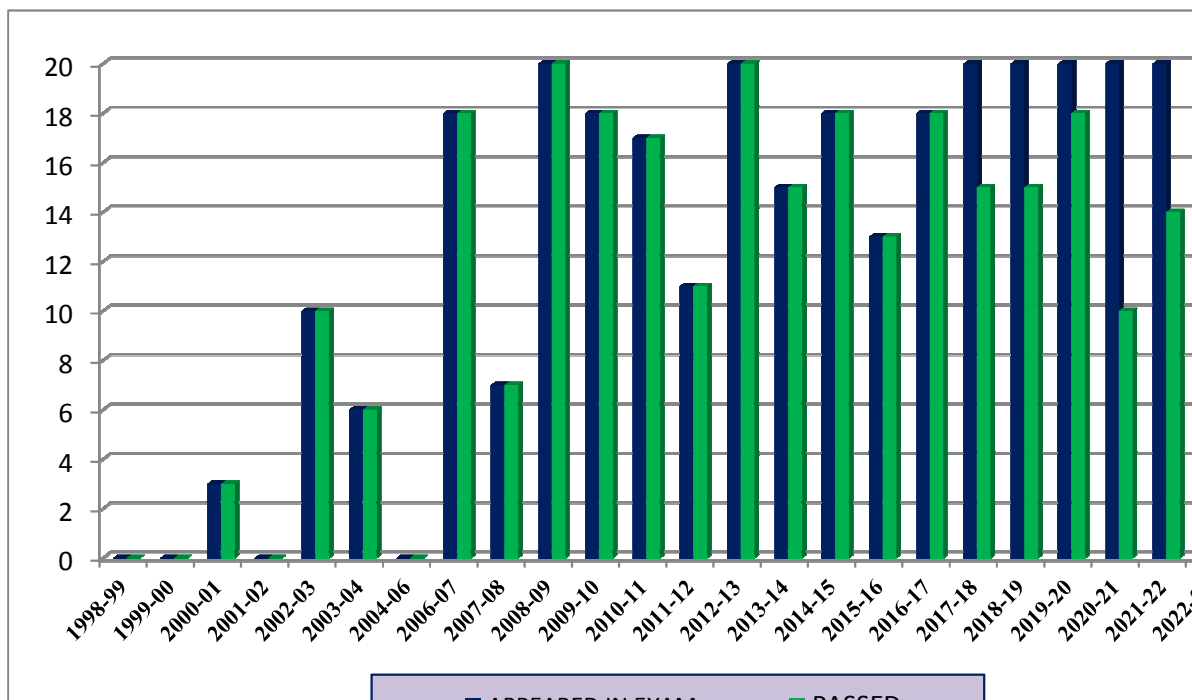


Fig. 4: Performance of Post Graduate Diploma in Sericulture (Vanya Silk) during 1998-2022

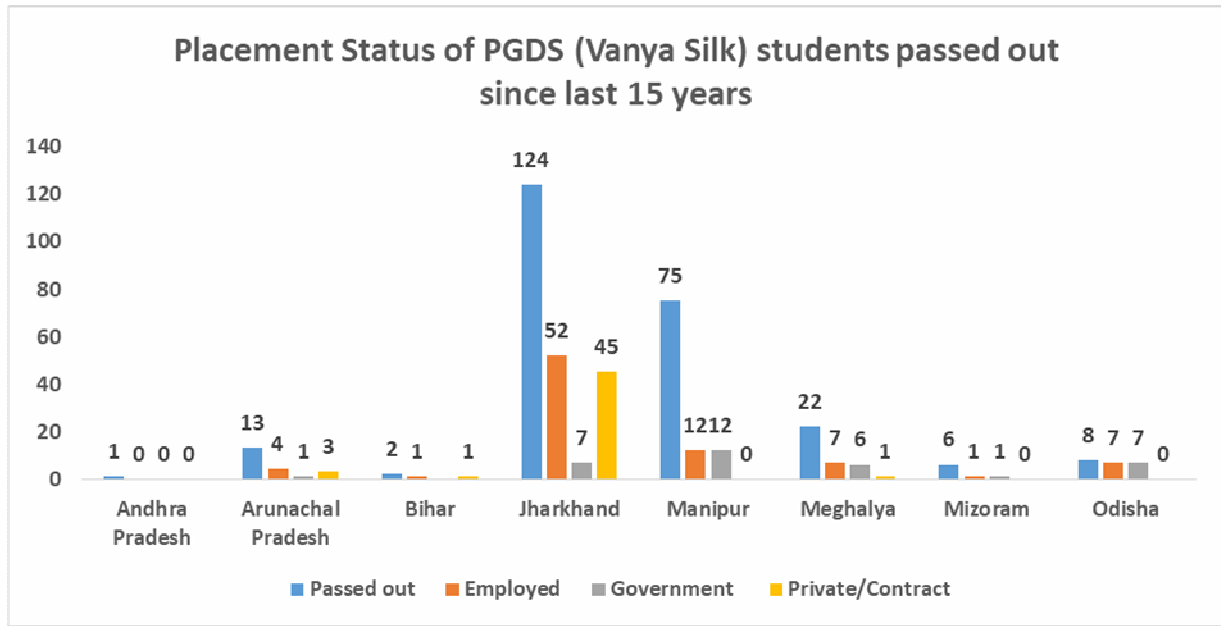


Fig. 5: Placement Status Report of PGDS (Vanya Silk) students passed out since last 15 years (2006-2007 to 2021-22)

Table 2: State wise performance of PGDS (Vanya Silk) students

States	Passed out	Employed	Government	Private/Contract
Andhra Pradesh	1	0	0	0
Arunachal Pradesh	13	4	1	3
Bihar	2	1		1
Jharkhand	124	52	7	45
Manipur	75	12	12	0
Meghalaya	22	7	6	1
Mizoram	6	1	1	0
Odisha	8	7	7	0
TOTAL	251	84	34	50

Table 3: Total no. of PGDS (Vanya Silk) students passed out from 2006-2007 to 2021-22

Name of state	Name of the post /designation	Total no. of students passed out	No. of students employed	Percent of employment (%)	Total Percent of employment (%)
Arunachal Pradesh	Districts Training Organiser (Government)	13	04	100	30.76
	Block Coordinator (Contract)				
	Management Information System (Contract)				
	Teacher, (Biology) (Contract)				
Bihar	Project Assistant (Contract)	02	01	50	50
Jharkhand	Pilot Project Officer (Government)	124	5	4	5.6 (Government)
	Bank (Government)		2	1.6	
	Block Entrepreneur Coordinator (Contract)		2	1.6	36.29 (Contract)
	Project manager (Contract)		33	26.61	
	Junior Research Fellow (JRF) (Contract)		2	1.6	
	Project Assistant (Contract)		6	4.83	
	Young Professional (Contract)		2	1.6	

Manipur	Seri Inspector (Government)	75	12	16	16 (Government)
	Field Assistant (Government)				
	Lab. Assistant (Government)				
Meghalaya	Seri Inspector (Government)	22	06	27.27	31.81
	Reeling Foreman (Government)				
	Field Assistant (Government)				
	Manager, ESF Bonegre (Government)				
	MSSAT as Block Social Audit Resource Person (Contract)				
Mizoram	Sericulture Extension Officer (Government)	06	02	33.33	33.33
	Teacher, (Biology) (Private)				
Odisha	ADS (Government)	08	07	87.5	87.5

Conclusion

A formal forum is required for certain types of interaction, including training, joint planning of research and extension agenda, and joint management agreements for soil, water and eco-conservation. The task for the coming decade will be to develop these in ways which are non-threatening both to the public and private organizations involved in sericulture extension and, as a prior requirement, to develop the mutual trust and awareness of each other's activities.

Extension and training will continue to be a vessel for transferring knowledge to the sericulturists, educating them and improving their living conditions. How efficiently and speedily this is achieved at lower cost will continue to be the focus. Tasar sericulture in India is on a growing path with Research and Development aiming improving the tasar ecosystem as a whole rather than focusing on the elements of the tasar sericulture individually.

Suggestions

Keeping in view of the not so encouraging records of placement in respect of PGDS degree holders following suggestions have been made for productive impact :-

- The PGDS degree should be a part of Essential / Desirable qualification during the selection process of Central Silk Board for the selection criteria of Field Assistants and Technical Staff.
- The PGDS degree should be a part of Essential / Desirable qualification during the selection process in different state sericulture departments.

- The PGDS degree holders must be given preference over others in departmental promotions of FA, TA and STA similarly as in many universities all Demonstrators having M.Sc. degree have been promoted to Lecturers. This step will also encourage more and more in service candidates undertaking PGDS course.

References

- Annual Report, CSB-CTRTRI Ranchi 1974-75 to 2022-23.
- Beera, S. (2000). Role of extension in popularizing improved sericulture technologies in different regions of India, Souvenir of National Conference on strategies for sericulture research and development held at CSR&TI, Mysore, 16-18th November 2000, pp 53-54.
- Director, I.I. (2022). ICAR-IASRI Annual Report 2016-17.
- Dwarakinath, R. (2006). Extension approach for sericulture modernization. *Indian Silk*, **44(12)**, 18-21.
- Ghose, B., Razib, B. and Sharmistha, G. (2014). Reviewing the status of agricultural production in Bangladesh from a food security perspective. *Russian journal of agricultural and socio-economic sciences*, 25(1), 19-27.
- Halagundegowda, G.R., Kumaresan, P., Manjunatha, G.R., Sangannavar, P., Sreenivasa, B.T., Nazeer A.S. and Moorthy, M. (2022). An analysis of growth and instability in vanya silk production in India. Souvenir cum Book of Abstracts on National Symposium of Vanya Sericulture: Opportunities Galore at Ranchi, 28 & 29th October, 2022, pp 189.
- Mittal, V., Pandey, J.P., Binkadakatti, J., Khandai, R.K., Alarm, S. and Sathyanarayana, K. (2023). Role of CRPs in tasar sector: Present status and future strategies. *Journal of Environmental Biology*, **44**, 533-539.
- Setty, H.N., Gopal, L. and Chinnaswamy, K.P. (2019). Empowerment of tribal communities through sericulture programmes in Jharkhand State. *IJRDO-Journal of Social Science and Humanities Research*, **4(2)**, 23-30.