GLOBAL JOURNAL OF BIO-SCIENCE AND BIOTECHNOLOGY

www.scienceandnature.org

IMPACT OF TRAINERS TRAINING PROGRAMMES OF INTEGRATED SKILL DEVELOPMENT SCHEME (ISDS) IN TASAR TECHNOLOGIES

P. M. Muniswamy Reddy, V.P. Gupta & G. Lokesh
Central Tasar Research and Training Institute Piska-Nagri, Ranchi - 835 303, Jharkhand

ABSTRACT
Integrated Skill development training programmes are the key factors in tasar culture to enhancing seed, rearing, disease management and productivity and quality in various sectors by improving fitness and skill power of their stakeholders. Keeping this in view, Central Tasar Research and Training Institute (CTR&TI), Ranchi has taken up the challenge of designing and organizing various ample training programmes of Integrated Skill development Scheme (ISDS) sponsored by Ministry of textile Govt. of India. To assess the quality, effectiveness and impact of training programmes, a systematic analysis was made on the basis of various parameters like tasar host plant maintenances, tasar silkworm seed production, rearing technologies and disease and pest management in tasar culture. The overall management and coordination of the training programme and other indices calculated based on pre-training test and post-training test were conducted and data collected from the trainees. The results However, they opined for some improvement in performance to make their practically operated their independent more interesting and effective by using newly developed technologies. The data reveled that higher level of improvement in technology adaptation; knowledge level (Table-1&2) average of 175%, & 62.4% respectively. On the other hand this will help in expanding the Tasar industry in Jharkhand in particular and India as a whole.

KEY WORDS: Tasar Host Plants, Seed Production, Silkworm Rearing and disease and pest management.

INTRODUCTION

Indian Tasar Culture has a long heritage and is inseparably interwoven with traditional livelihood of the aborigines of Jharkhand, Bihar, Chhattisgarh, Orissa, Andhra Pradesh, Maharashtra, West Bengal and Uttar Pradesh. The tasar industry by its nature is a cluster of many non-farm and on-farm activities and has a strong need for many forward and backward linkages. It has been contributing towards the socio-economic upliftment of rural poor, especially from among the tribes, who otherwise occupy the status of people Below Poverty Line. Because of its potential in harbouring gainful rural employment, tasar culture is an effective tool for raising tribal economy and promoting cottage industry. It is a backbone for tribal development, and the Government of India, through the Central Silk Board and different State Governments have initiated several developmental and welfare measures for the tribal welfare through tasar culture. It is a way of life for various tribes and forest dwellers. About 1.25 lakh tribal families are associated with tasar culture in the country. In recent years, the tasar industry has acquired a big role in improving socio-economic status of these tribal people and generating employment opportunities. Human resources is one of the most critical components for the growth of an Industry. Training division of CTR & TI runs various Human Resource Training Programmes for the Scientists, officer and technical/field staff of Central Silk Board (CSB) and Dept. of Sericulture (DOS) from different Tasar growing states, and also farmers, silk reelers, unemployed youth, NGOs and other stake holders of Tasar industry. On the basis of need assessment of tasar industry in general and technological requirement in specific/gap area in particular, exclusive training programmes have been designed to provide hands-on-training to the farmers to improve their technical knowledge and operational skill in various state-of-the art technologies and techniques of tasar culture for higher cocoon productivity and silk quality. To hasten the diffusion of technologies in the field, it is imperative that the extension staff should possess good knowledge pertaining to recommended technologies *(Ronald R. Sims 2006,* Geetha, G.S *et al* 2001, Vijaya Kumari, K.M. and Rajan, R.K. 2006).

Keeping this in view, the training programmes have been formulated to impart training to extension officials for improvement of their knowledge about various tasar culture technologies and other related aspects. These programmes are conducted by well-experienced, qualified, trained and able scientists of CTR & TI. Most of the programmes are fully sponsored by either CSB or funding agencies and the participants are provided free boarding & lodging and travelling facilities.

Training Division of Institute has the following prime objectives:-

B. Skill Seeding and Upgradation of skills in Sericulture sector to meet the dynamic needs of the industry and increasing employability, income levels and quality of life.

1. Trainers training in tasar culture
2. Tasar seed production Technology
3. Tasar silkworm rearing Technology
4. Disease & pest Management
5. Tasar silk reeling and spinning technology
6. Entrepreneurship Development in tasar culture

All the mentioned training programmes falls under the sector called 'Human Resource Development', which is one of the main sectors of Central Silk Board (CSB), a statutory body deals with the production of silk in India. Human Resource Development (HRD) can be defined as "the framework for helping employees develop their personal and organizational skills, knowledge and abilities". HRD included such opportunities as employers training, employee career development, performance management and development, coaching, monitoring, succession planning, key employee identification, tuition assistance and organization development. The focus of all aspects of Human Resource Development is on developing the most superior workforce so that the organization and individual employees can accomplish their work goals in service to customers. (Ronald R. Sims 2006). Coming to sericulture which is a skilled-based industries, trained man power is the backbone of it. This can be accomplishing only through Human resource development in general and training programme in particular. Through training programme trained man power can be boost out in sericulture which finally leads to the development of silk production in the country as a whole.

MATERIALS & METHODS

The present investigation was carried out at CTR&TI, Ranchi and evaluation of trainers training programmes was conducted with various Dos, CSB and other NGos staff members target groups who participated at the Institute Integrated Skill development Scheme (ISDS) during the period on September 10th to September 21st - 2013 and March 25th to April 07th - 2014, Two batches total 43 participants and each batch training programme duration 15 days. To assess the technology adaptation, knowledge level quality, effectiveness and impact of training programmes, the data were collected with the help of pre-training test and post-training test before the commencement and completion of the training programmes and based on the above said tests performance awarded grading (A&B) and also issuing certificate (Sunildutt, J. and Chole, R.R., 2002; Rahmathulla, *et al*., 2003; Rahmatulla, *et al*., 2006;, Srinivasa G, *et al*., 2007).

The data were analysis for the assessment of Improvement in knowledge and adoption level of tasar technologies was calculated using the following standard formula (Srinivasa *et al.,* 2007 and *Scott B. Parry.2005,* Ansari and Chandargi, D.M. 2000).

$$\text{Percentage of Improvement} = \frac{\text{Post} - \text{training test} - \text{Pre} - \text{training test}}{\text{Pre} - \text{training test}} x\,100$$

RESULTS & DISCUSSION

Central Tasar Research and Training Institute (CTR&TI), Ranchi has taken up the task to design the Integrated Skill development Scheme and implementation of various comprehensive training programmes for effective human resource training and development in tasar culture.

TABLE1: Trainers Training in Tasar Culture at CTR &TI, Ranchi (September 10 to September 21, 2013)

Sl.No	Candidate Name	Pre-Training	Post-Training	Improvement (%)	Grade awarded
1.	Mr. Shambhu Sharan Baitha	10.0	14.0	40.0	B
2.	Mr. Shyamal Das	7.0	12.0	71.4	A
3.	Mr. Krishan Murari Kumar	5.0	15.5	210.0	A
4.	Mr. Kailash Prasad	4.0	17.5	337.5	A
5.	Mr. Sita Ram Paswan	9.0	15	66.6	A
6.	Ms Amrita Ranjna Kujur	12.0	27.0	125.0	A
7.	Mrs Amita Lakra	14.0	27.0	92.9	A
8.	Mr. Anupam Ashish Bara	10.0	25.0	150.0	A
9.	Mr. Alok Sanjay Tigga	9.0	20.0	122.2	A
10.	Mr. Snehil Anand	5.5	19.0	245.5	A
11.	Mr. Saurav Sarawgi	6.0	24.0	300.0	A
12.	Mr. Kumar Anand	6.0	24.0	300.0	A
13.	Ms Medha Tejaswini	10.0	22.0	120.0	A
14.	Mrs Neha Tigga	6.0	26.0	333.3	A
15.	Mr. Bijoyendra Lal Sircar	7.0	17.5	150.0	A
16.	Mr. Anupam Ekka	5.0	26.5	430.0	A
17.	Mr. Mahesh Murmu	8.0	18.5	131.3	A
18.	Ms Seema Tirkey	7.0	22.0	214.2	A
19.	Mr. Anand Kumar Singh	8.0	22.5	181.3	A
20.	Md. Azad	9.0	16.0	77.8	A
21.	Mr. Khageshwar Singh	11.0	22.5	104.5	A
22.	Ms Tithi Das	11.0	24.5	122.7	A
23.	Mr. Ajay Kumar	11.0	22.0	100.0	A
	Average	8.28	20.86	175.05	

The primary objective of these programmes is to align the human resources development with the corporate and business strategies, management and upgrading the knowledge and skill of stakeholders and also the training capabilities of Dos Staff/officials and trainers by exposing them to the latest concepts, techniques and technologies of

tasar culture. On the basis of need assessment of tasar industry in general and technological requirement in specific/gap area in particular, host plant maintenances, seed production, silkworm rearing and disease & pest management and Tasar silk reeling and spinning technology have been designed to provide hands-on-training to the participants to improve their technical knowledge and working skill in various state-of-the art technologies and techniques of tasar culture for higher cocoon productivity. (Table 1&2) It revealed that the average of first batch 175%, & second batch 62.4% respectively. Keeping in view the prospects of tasar industry in providing self-employment opportunities to rural people, special programmes have been designed to integrated skill development Scheme (ISDS) motivate school drop-outs and unemployed youths to adopt tasar culture for poverty alleviation and better livelihood. (Shetty K. K., *et al*; 2007, Subramaniam, R.K. *et al* ; 1995, Mani, A *et al ;* 2006, Meenal, R. and Rajan, R.K. 2006, Srinivasa, G.*et al* ; 2007, Donald L. Kirtkpatrick and James D. Kirtkpatrick. 2006, 2007.)

TABLE 2: Trainers Training in Tasar Culture at CTR &TI, Ranchi (March 25 to April 07, 2014)

Sl.No	Candidate Name	Pre-Training	Post-Training	Improvement (%)	Grade awarded
1.	Dr. Dhananjay Vijaykumar Jadhav	18.0	26.0	44.4	A
2.	Mr. Sham Mansaram Madavi	10.0	24.0	140.0	A
3.	Mr. Damodhar K. Shivankar	13.5	27.5	103.7	A
4.	Mr. Gurudas Giri	12.5	25.0	100.0	A
5.	Mr. Balwant Pandhari Kamdi	12.0	16.0	33.3	B
6.	Mr. Govind Vishnu Murkute	23.0	29.5	28.3	A
7.	Mr. Ch. Anand Kumar	20.5	27.0	31.7	A
8.	Mr. E. Ravi Sankar Reddy	13.0	20.5	57.7	A
9.	Mr. T. Lakshmana Rao	13.0	20.0	53.8	A
10.	Mr. G. Rajendra Bose	7.5	21.5	186.7	A
11.	Mr. Tara Sankar Patra	19.5	26.0	28.3	A
12.	Mr. Shyamal Kumar Ray	11.0	15.0	36.4	B
13.	Mr. Arjun Singh Kitawat	11.0	13.0	18.2	A
14.	Mr. Suresh Chandra Patel	14.5	22.5	55.2	A
15.	Mr. Pankaj Kumar	12.5	28.0	124.0	A
16.	Mr. Rajat Kumar Mahanayak	15.0	19.0	26.7	B
17.	Mrs. Bharati Sahani	22.5	24.0	6.7	A
18.	Mr. Ramesh Chandra Chakrabortty	17.5	21.5	22.9	A
19.	Mr. Khagendra Nath Bera	14.0	21.0	50.0	A
20.	Dr. M. Rammurthy	13.5	27.0	100.0	A
	Average	14.70	22.70	62.4	

CONCLUSION

In the present study Central Tasar Research and Training Institute (CTR&TI), Ranchi has taken up the task of designing and organizing training programmes of Integrated Skill development Scheme (ISDS) To assess the great impact on the enhancement of skills and knowledge level of the participants and grading of individual trainees beneficiaries was made on the basis of various parameters like tasar host plant maintenances, tasar silkworm seed production, rearing technologies and disease and pest management in tasar culture. Based on the result drawn it can be concluded that these training has got a great impact of all the assessed participants of State Govt. (DOS), CSB and NGos officials are now fully equipped and confident that they can teach newly developed technologies to the tasar farmers in the field level which in turn will serve them as a trainer . By doing so, tasar rearing farmers can produce good quality seed and more yield by increasing their annual income through Tasar culture. On the other hand, this will help in expanding the Tasar industry in Jharkhand in particular and other tasar growing states in India as a whole. Ultimately, this will help the Institute in achieving one of its prime objective i.e. Human Resource Developments (HRD) which is the need of the hour in Tasar culture.

REFERENCES

Ansari and Chandargi, D. M. (2000) Effectiveness of induction training programme organized for Assistant Agriculture Officers (Farm women). *J. Extn. Edu.*, **11**: 2645-2650.

Srinivasa, G., Rahmathulla, V.K., Vindhya, G.S. and Rajan, R.K. (2007) Training programmes in sericulture: Their evaluation and impact on extension personnel and sericulturists. *Indian J. Seric.,* **46(1)**: 26-31.

Donald L. Kirkpatrick and James D. Kirkpatrick. (2006) *Evaluating Training Programmes.*

Donald L. Kirkpatrick. (2007) *Evaluating Training Programmes (Vol.-1). (Easy to read large bold edition).*

Scott B. Parry (2005) *Evaluating the Impact of Training: A collection of Tools &Techniques. Edition* -1(Book) 4.

Subramaniam, R.K., Sarkar, G., Singhvi, N.R., Chikkanna, Kalappa, H.K., Iyengar, M.N.S. and Datta, R. K. (1995) Socio-economic conditions of women sericulturists and their access to sericulture technology. *Indin J. Seric.* **34 (1):** 50-53.

Rahmatulla, V. K., Srinivasa, G., Vindhya, G. S. and Rajan, R. K. (2006) Assessment of sericultural technology training programme – An analysis of sericulture trainees. *Indin J. Seric.* **45 (1):** 7-10.

Shetty K. K., Sathyanarayana K. and Mukund V. Kirsur (2007): Vanya silks of India –Exploring New Horizons. Abstracts of International Conference "Sericulture Challenges in the 21st Century" (Serichal 2007) & the 3rd BACSA meeting, 18 -21 September, 2007, Vratza, Bulgaria, pp 42.

Rahmatulla, V. K., Srinivasa, G., Vindhya, G.S., Rajan, R.K. and Kamble, C. K. (2007) Faculty performance and course coverage in sericulture training programme – An analysis. *Indin J. Seric.* **46 (2):** 136-139.

Sunildutt, J. and Chole, R.R. (2002) A study on adoption of sericultural practices by sericulturists. *Indin J. Seric.* **41 (1):** 1-5.

Ronald R. Sims (2006) *Human Resource Development Today and Tomorrow*.

Geetha, G.S., Srinivasa, G., Jayaram, H., Iyengar, M.N.S. and Vijayaprakash, N.B. (2001) Socio-economic determinants of farmer oriented technology packages for sericulture – A field study. *Indin J. Seric.* **40 (1):** 96-99.

Mani, A., Lakshmanan, S., Balasaraswathi, S. and Qadri, S.M.H. (2006) Studies on adoption of new sericultural technologies at farmers' field in Erode district of Tamilnadu: An empirical analysis. *Indin J. Seric.* **45 (1):** 55-57.

Meenal, R. and Rajan, R.K. (2006) Knowledge and adoption level of bivoltine sericulture technologies by farmers. *Indin J. Seric.* **45 (2):** 188-191.

Srinivasa, G., Himantharaj, M.T., Vindhya, G.S., Rajan, R.K. and Kamble, C.K. (2007) Factors determining the training needs of extension officials and sericulturists in south India. *Indin J. Seric.* **46 (2):** 130-135.

Vijaya Kumari, K.M. and Rajan, R.K. (2006) Knowledge and adoption level of technologies by commercial Chawki Rearing Centre owners in Karnataka. *Indin J. Seric.* **45 (1):** 11-14.