

## **Eri-Culture and Its Impact on Production and Employment in BTAD and Assam, India**

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#### **Abstract**

Eri culture is integral part in Indian economy in production as well as in employment generation which helps in alleviating poverty. Eri culture has been practiced by many tribes in Assam and Bodoland Territorial Area District (BTAD) since time immemorial. In this paper, it is tried to analyze the production and employment generation under eri culture in the state Assam and (BTAD). The paper also deals with comparative analysis of family engagement, production and employment generation under eri in BTAD and Assam and BTAD share of employment and production to Assam. The study is framed mainly for the year 2010-11 to 2019-20. To analyze the annual growth of production and employment generation, Simple growth rate (SGR) as well as average of simple (annual) growth rate (AAGR) is calculated. The employment generated through eri culture has been calculated taking the formula adopted by Deuri et.al in 2012 (Deuri, M.C.Sharma, & Azad, 2012).

It is found that Cocoon yield in Assam as well as in BTAD to have a positive trend during the study period. Comparative analysis of growth rate of cocoon yield between Assam and BTAD shows that, the growth rate for mulberry cocoon yield for BTAD with AAGR of 35.42 per cent is superior to that of Assam (24.74 per cent). The growth rate for Muga cocoon yield is also better for BTAD than Assam with AAGR of 19.42 and 6.51 per cent respectively. In case of employment, it is found that in Assam, employment generated through eri is 25.58 per cent per year over the period 2010-11 to 2019-20. In case of BTAD, it is found to grow at the rate of 17.87 per cent per year during the same period of time.

Key words: Sericulture, employment, production

#### **1. Introduction:**

Silk is one of the best natural and earliest discovered fiber by man amongst wool, cotton and jute. India has been a sericultural country since the time of immemorial. Sericulture is an integral part of the rural economy providing gainful employment opportunity particularly to the small and marginal farmers (Mech D., 2013). It plays an important role in transformation

of rural economy as it assures regular employment and periodic returns round the year (Lakshmanan, 1998) . This provides ample employment and income in the rural areas and hereby helps in alleviating poverty in the country side of India (Taufique M., 2021). The Eri silk has a scope for sustainable employment and income of a wider section of rural population. Eri-Fabric is also called “Poor Man’s Silk” as it is cheaper than Muga and Mulberry silk. Eri culture is an occupation of “low investment and high output” (Banjamin & Jolly, 1987). Eri culture generates employment for a large number of unemployed people especially to females partially or fully in its various stages of activities (De U. D., 2007). Eri silk is an antifungal, and it has same capacity for thermal insulation as wool. It is most suitable material for baby clothes, undergarments, blankets, quilts and face masks (Singha, 2020). The Eri culture is practiced not only for silk but also for the protein rich pupae for consumption of people as a delicacy (Deuri J., 2013).

India is the only country in the world to produce all the three varieties of silk among which eri silk is of vital importance (Das S.K., 2021). India enjoys the availability and practice of mulberry and non- mulberry sericulture like tasar, eri, muga and oak tasar varieties (Vishaka, 2021). India’s silk is known for their finery and artistic designs and distinct color (Sarmah, Sarkar, Ahmed, & Deuri, 2013). Sericulture significantly contributes to the Indian Commercial Silk Production which is mostly confined to the Brahmaputra valley of Assam in the tribal inhabited districts (Gogoi, Singha, Dutta, & Singha, 2021).

The North Eastern Region of India is endowed with natural forest having numerous flora and fauna, which include various sericigenous insects and their food plants. Sericulture has persisted for more than 600 years as a prime socio-economic activity in the North Eastern Region of India particularly Assam. The Brahmaputra valley of Assam and its adjoining foothills believed to be the original home of Eri silkworm, *Philosamia ricini* Hutt and its wild counterpart (Chowdhury, 1982). Again, the region produces all the four varieties of silk Mulberry (*Bombyx mori*), Muga (*Antheraea assamensis*), Eri (*Philosamia ricini*) and Oak Tasar (*Antheraea proylei*). The region produces 95 per cent of muga silk and 65 per cent of eri silk of Assam (Handloom Textile and Sericulture, Directorate of Sericulture, 2021).

Since time immemorial, sericulture has been practiced by many tribes in Assam. The state has a land area 78,438 sq km (Statistical Handbook of Assam, 2018). The state produced all the four varieties of silk i.e., Eri, Muga, Mulberry and Tassar on commercial basis. Here main center of attraction over the world is Muga and Eri silk. Central Silk Board (CSB) of India reported that Assam climbed to the third spot in the year 2011-12 from fifth in the previous year. Eri culture occupies a prominent place in the cottage industries of Assam (Bharty, 2013). Assam produced 2,109 metric ton (MT) of silk in 2011-12 out of which eri silk occupies 1,976 MT which is 93.69% of the total silk. Eri culture, being the agro based rural industry it remains closely linked with the culture of Assam state since time immemorial and the traditional occupation of the people of this region (De U. D., 2015).

The Bodoland Territorial Council was constituted under the Sixth Schedule to the Constitution of India in the year 2003 after the signing of Memorandum of Settlement on 10th February 2003 between the Government of India, the Government of Assam and Bodo

Liberation Tigers (Government of Assam, Department of welfare plain and tribe, 2021). It is an autonomous region in Assam and the region is situated in the North bank of the mighty Brahmaputra River and below the foothills of Bhutan and Arunachal Pradesh with an area 8970 sq.km ( (Statistical Handbook of Assam, 2020). The region was made up of four districts namely Kokrajhar, Chirang, Baksa and Udalguri. The BTAD area is famous for eri culture from ancient time and still it is one vital source of livelihood (Parameswaranaik J., 2020). The art of rearing silkworms, spinning and weaving is an integral part of Bodo people. It is not only a traditional practice but also a source of income and a way to uplift socio-economic condition. Among all silk, eri silk is most popular to the people of BTAD region and closely associate with culture and tradition of the society. Moreover, protein rich pupae are consumed by the people of the area as delicate food item. This paper emphasizes the production and employment generation under eri culture in the state Assam and Bodoland Territorial Area Districts (BTAD) and also the comparative analysis of family engagement. This paper also studies the impacts of production and employment generation in BTAD as share to the Assam.

## 2. Methodology:

The study is based on secondary data. The chief sources of the secondary data are statistical hand books of Assam and BTAD, websites, books, journals, news-papers etc. The study is framed mainly from the year 2010-11 to 2019-20. To analyze the annual growth of production and employment generation, Simple growth rate (SGR) as well as average of simple (annual) growth rate (AAGR) is calculated. The simple growth rates simply divide the difference between the ending and starting value by the starting value, or it can be written as

$$SGR = \frac{\text{ending value} - \text{starting value}}{\text{starting value}}$$

The average annual growth rate measures the rate of growth or growth over a series of equally spaced time period.

The employment generated through eri culture has been calculated taking the formula adopted by Deuri et.al (Deuri, M.C.Sharma, & Azad, 2012). The formula is written as

$$\text{Employment generation (Man Years)} = \frac{\text{Raw Silk Production in kg} \times 250}{300}$$

## 3 Discussion and observation:

### 3.1 Village and family engagement in sericulture:

**Table :1 Village's engagement in sericulture Assam and BTAD**

Year	Nos. of sericulture Villages in Assam	Growth rate of sericulture Villages in Assam	Nos. of sericulture Villages in BTAD	Growth rate of sericulture Villages in BTAD
2010-11	10532		1186	
2011-12	10740	1.974934	1573	32.63069

2012-13	11200	4.283054	1573	0
2013-14	11411	1.883929	1573	0
2014-15	11281	-1.13925	1280	-18.6268
2015-16	11281	0	1590	24.21875
2016-17	9935	-11.9316	1683	5.849057
2017-18	8726	-12.1691	1683	0
2018-19	8828	1.16892	1658	-1.48544
2019-20	8642	-2.10693	1658	0
<b>AAGR</b>		<b>-2.04</b>		<b>7.74</b>

Source: Compiled from Statistical Hand Book Assam various Issues, Statistical Hand Book of BTC, various issues and Department of sericulture BTC

**Table 1a: Descriptive statistics showing the mean and standard deviation of growth of sericulture village in Assam and BTAD**

	Minimum	maximum	mean	Standard deviation
Growth of sericulture village in Assam	-12.17	4.28	-2.004	5.991
Growth of sericulture village in BTAD	-18.63	32.63	4.73	15.13

Source: Author Calculation

It is evident that there is a positive growth in case of village engagement in sericulture in Assam during the year 2010-11 to 2013-14. After that there has been observed a decreasing growth rate up to 2019-20 except for the year 2018-19. On calculating the AAGR, it is obtained -2.04 per cent. On the other hand, the AAGR of BTAD is positive that is 7.74 per cent. The descriptive statistics also shows, the mean of growth of sericulture village of BTAD to be superior to the growth of sericulture village in Assam. According to the official report, it is reported that most of the sericulture producer converts their field to tea garden leading to decline in village engagement in sericulture. Earlier rearing was done even if the family has very negligible number of silk worm food plants and even if it is not economic. Nowadays this form of rearing is stopped and the pattern of rearing has changed gradually to commercial basis.

**Table:2 Number of families engaged in Sericulture in Assam and BTAD.**

Assam							BTAD					
year	Eri	Muga	Mulberry	Growth rate of Eri Culture families	Growth rate of Muga Culture families	Growth rate of Mulberry Culture families	Eri	Muga	Mulberry	Growth rate of Eri Culture families	Growth rate of Muga Culture families	Growth rate of Mulberry Culture families
2010-11	182979	39444	31711				47769	1941	800			
2011-12	183000	39750	31766	0.173441	0.775783	0.173441	47769	1941	800	0	0	0
2012-13	199763	59874	31955	9.160109	50.62642	0.594976	47749	1941	800	0.04187	0	0
2013-14	191566	57966	32541	4.10336	3.18669	1.833829	50510	348	412	5.78232	82.0711	-48.5
2014-15	552063	32045	68298	188.1842	44.7176	109.8829	50710	548	597	0.395961	57.47126	44.90291
2015-16	425382	32632	38887	22.9468	1.831799	43.0628	50710	561	842	0	2.372263	41.03853
2016-17	271318	20541	27546	36.2178	37.0526	29.164	48369	2241	1510	4.61645	299.4652	79.33492
2017-18	249295	27690	29059	8.11704	34.80356	5.492631	48369	2241	1510	0	0	0
2018-19	240939	30164	29905	3.35185	8.934633	2.911318	40112	2566	1572	17.0709	14.50245	4.10596
2019-20	249615	30710	29205	3.600911	1.810105	2.34075	40112	2566	1572	0	0	0

<b>AA</b>				<b>14.4</b>	<b>1.54</b>	<b>5.15</b>				<b>-1.73</b>	<b>32.4</b>	<b>13.4</b>
<b>GR</b>				<b>0</b>							<b>2</b>	<b>3</b>

Source: Compiled from Statistical Hand Book Assam various Issues, Statistical Hand Book of BTC, various issues and Department of sericulture BTC

**Table 2 a: Descriptive statistics showing differences in growth of family engagement in sericulture in Assam and BTAD**

	Minimum	maximum	mean	Standard deviation
Eri				
Assam	-36.22	188.18	14.0424	66.77175
BTAD	-17.07	5.78	-1.7279	6.31913
Muga				
Assam	-44.72	50.63	1.5362	30.0475
BTAD	-82.07	299.47	32.4156	106.346
Mulberry				
Assam	-48.50	79.33	13.4314	36.6400
BTAD	-43.06	109.88	5.1468	42.703

Source: Author calculation

Here the growth rate of number of families engagement in Eri culture in Assam is observed, even though the growth rate over the year 2010-11 to 2019-20 is seen to be fluctuating up and down, the AAGR is found to be positive i.e., 14.40 per cent. However, in case of BTAD, it is observed the decline in family's engagement in eri, with the AAGR of -1.73 per cent. Moreover, there is drastic increase in growth rate of family's engagement in muga and mulberry in BTAD with AAGR of 32.42 and 13.43 per cent respectively. The descriptive statistics shows the mean growth of family's engagement in eri in Assam is 14.04 per cent and -1.72 per cent in BTAD. The mean growth rate of family's engagement in Muga and mulberry is superior for BTAD than Assam (Table 2.a).

Since the formation of BTAD in 2003, Sericulture Department of Assam, the local government and central silk board (CSB) has given importance to sericulture development in the region. Eri culture is very common culture to the BTAD area since decades and most of the rearing were done for home consumption as well as for commercial purposes. The newly formed BTAD government with the help of Sericulture Department and CSB took initiative for expanding the sericulture among the people of BTAD. As a result, the number of family's engagement in case of muga as well as mulberry culture has started to have increased since 2016 by more than doubled. Another reason for rise in number of families in muga and mulberry in BTAD is because of the government incentives in the form of aid under Catalytic Development Project (CDP) in terms of cash and kind as well as training given to the growers for the promotion of muga and mulberry and that caused a drastic shift of erirearers to muga and mulberry culture.

**3.2 Cocoon yield and production of raw silk in BTAD:****Table 3: Cocoon yield in Assam and BTAD**

Assam							BTAD					
Year	Eri Cut Cocoons (in MT)	Muga Cocoons (in lakh no.)	Mulberry Cocoons (in MT)	Growth rate of Eri Cut Cocoons (in %)	Growth rate Muga Cocoons (in %)	Growth rate Mulberry Cocoons (in %)	Eri Cut Cocoons (MT)	Muga Cocoons (lakh no.)	Mulberry Cocoons (MT)	Growth rate of Eri Cut Cocoons (in %)	Growth rate Muga Cocoons (in %)	Growth rate Mulberry Cocoons (in %)
2010-11	1107.68	6368.3	110.41				396.6	225	15.5			
2011-12	1622.51	5812.4	129.28	46.47822	-8.72917	17.09084	388.7	225	18.56	-1.99193142	0	19.7419355
2012-13	1987	5987	278	22.46458	3.003923	115.0371	501	227	18.56	28.89117571	0.888889	0
2013-14	3182	6361	341	60.14092	6.246868	22.66187	735	400	36	46.70658683	76.21145	93.9655172
2014-15	3049.89	6528.21	267.64	-4.15179	2.628675	-21.5132	884.91	693	45.7	20.39591837	73.25	26.9444444
2015-16	3317.28	6864.5	327.84	8.767201	5.151336	22.4929	975	750	90	10.18069634	8.225108	96.9365427
2016-17	4350.58	6480	439.05	31.14901	-5.60128	33.92204	1141	1225	151	17.02564103	63.33333	67.7777778
2017-18	6300	7865.5	575.89	44.80828	21.38117	31.16729	1342	1817	170	17.61612621	48.32653	12.5827815
2018-19	5632.89	6494.25	611.82	-10.589	-17.4337	6.239039	1500.61	1799	171.4	11.81892697	-0.99064	0.82352941
2019-20	6311	9865.66	584.8	12.0384	51.91377	-4.41633	1677	1899	171.4	11.75455315	5.558644	0
<b>AAGR</b>				<b>23.46</b>	<b>6.51</b>	<b>24.74</b>				<b>18.04</b>	<b>19.42</b>	<b>35.42</b>

Source: Compiled from Statistical Hand Book Assam various Issues, Statistical Hand Book of BTC, various issues and Department of sericulture BTC Vanya silk (Muga and Eri) sectors (Souvenir Cum Compendium, 2013).

**Table 4: Production of raw silk in Assam and BTAD**

Year	Assam						BTAD					
	Eri Raw Silk (MT)	Growth Rate of Eri Raw Silk	Muga Raw Silk (MT)	Growth Rate of Muga Raw Silk	Mulberry Raw Silk (MT)	Growth Rate of Mulberry Raw Silk	Eri Raw Silk (MT)	Growth Rate of Eri Raw Silk	Muga Raw Silk (MT)	Growth Rate of Muga Raw Silk	Mulberry Raw Silk (MT)	Growth Rate of Mulberry Raw Silk
2010-11	810.98		113.28		11.40		317.28		3.48			
2011-12	1061.61	30.90458	114.56	1.129944	11.25	1.31579	369	16.30106	4.20	20.68966	1.40	
2012-13	1934	82.17613	109.00	4.85335	25.00	122.222	400.80	8.617886	4.54	8.095238	2.00	42.85714
2013-14	2545.60	31.62358	127.20	16.69725	27.24	8.96	588	46.70659	8	76.21145	3.60	80
2014-15	2345.00	7.880	126.00	0.943	26.40	3.083	710	20.7483	11.65	45.625	4.87	35.27778

		26		4		7						
2015 -16	2554. 78	8.945 842	127. 00	0.793 651	31.02	17.5	771	8.591 549	15	28.75 536	9.00	84.80 493
2016 -17	3468. 25	35.75 533	129. 60	2.047 244	49.64	60.02 579	914.3 4	18.59 144	24. 55	63.66 667	12.45	38.33 333
2017 -18	4050. 00	16.77 359	156. 96	21.11 111	59.50	19.86 301	1093	19.53 978	36. 38	48.18 737	17	36.54 618
2018 -19	3421. 70	- 15.51 36	157. 00	0.025 484	61.00	2.521 008	1200. 49	9.834 401	35. 98	- 1.099 51	17.14	0.823 529
2019 -20	5048. 80	47.55 239	197. 29	25.66 242	68.70	12.62 295	1342	11.78 769	37. 98	5.558 644	17.14	0
<b>AA</b>		<b>25.59</b>		<b>6.852</b>		<b>24.64</b>		<b>17.85</b>		<b>32.85</b>		<b>39.83</b>
<b>GR</b>		<b>307</b>		<b>262</b>		<b>617</b>		<b>763</b>		<b>443</b>		<b>036</b>

Source: Compiled from Statistical Hand Book Assam various Issues, Statistical Hand Book of BTC, various issues and Department of sericulture BTC

**Table 4a: Descriptive statistics showing growth of Production of silk yarn in Assam and BTAD**

	Minimum	maximum	mean	Std. deviation
Eri				
Assam	-15.51	82.18	25.59	29.61
BTAD	-1.99	46.71	18.04	13.63
Muga				
Assam	-4.85	25.66	6.85	11.12
BTAD	-.99	76.21	30.53	33.96
Mulberry				
Assam	-1.99	46.71	18.04	13.63
BTAD	.00	96.95	35.41	40.00

Source: Author Calculation

The silk production has been increasing in Assam as well as BTAD. Table 4 shows the production of eri silk, muga silk and mulberry silk in Assam and BTAD and also its annual average growth rate. The average annual growth of raw eri silk in Assam is 25.59 per cent, 6.85 per cent for muga and 24.64 per cent for mulberry. Again, the average annual growth rate in BTAD is 17.85 per cent for eri, 32.85 per cent for muga and 39.83 for mulberry. The descriptive statistics also has same meaning showing that the mean of growth rate of muga and mulberry is better in BTAD than Assam. The concerted effort made by the various group of people to streamline the Sericulture Department in BTC, made a remarkable impact for overall progress of Silk Industry in BTAD. The production of eri raw silk after the creation of BTC, reached to the tune 300MT, accounting for 30% of total raw silk production in Assam. Similarly, muga raw Silk recorded to 5MT against negligible quantity during pre-formation of BTC. Due to the remarkable achievement made by the department in terms of production and productivity within a short span, the Directorate of Sericulture earned recognition from Government of India, wherein, allocation and released funds were released directly to BTC for boosting the silk industry and for upliftment of poor farmers (Souvenir Cum Compendium, 2013). A large number of private grainers have been encouraged for production



of Muga silkworm eggs. So, that the rearers get diseases (Pebrinedisease) free eggs for rearing. Being the premier and lead institute in Muga and Eri Sector in the region, Central Muga Eri Research and Training Institute (CMER & TI) has been playing a pivotal role in sharpening the industry from a scattered unorganized condition into an integrated export oriented rural industry through R&D support(Chudhury, Bhattacharya, & Giridhar, 2013). Again after creation of Bodoland Territorial Council during the year the year 2003 Central Silk Board in association with Directorate of Sericulture, BTC carried out a comprehensive survey to access the potential and status of silk industry in newly created districts of BTC strengthening the infrastructure, skill upgradation and technology upgradation were most important priority during 1<sup>st</sup>ten (10) years of the plan(2005-06 to 2015-16) of BTC (G.C.Das, Deuri, A.K.Sahu, & Nath, 2013).Moreover,Muga Wild Life Sanctuary was established in BTAD on 5<sup>th</sup>June, 2013 in the fringe's areas of Rangijora of Kuklung Forest Range by demarketing 100 acres of forest land for conserving the prestigious Muga Silk Worm (Deuri, Deuri, Bhattacharya, & Hazarika, 2013) . The following Infrastructure facilities like mugagrainage hall, eri and mulberry rearing house, seed rears, muga wild life sanctuary, 10 unit of mulberry reeling and 30 unit of muga reeling are also available in BTAD's since 2016-17(Bodoland Industrial Policy, 2019).

#### 4. Employment generation under eri:

**Table 5: Employment generation through Eri in Assam and BTAD**

year	Assam		BTAD	
	Employment generated (in lakh)	Growth rate	Employment generated(lakh)	Growth rate
2010-11	6.76		2.64	
2011-12	8.85	30.91716	3.08	16.66667
2012-13	16.12	82.14689	3.34	8.441558
2013-14	21.21	31.57568	4.90	46.70659
2014-15	19.54	-7.87364	5.92	20.81633
2015-16	21.29	8.955988	6.43	8.614865
2016-17	28.90	35.74448	7.62	18.507
2017-18	33.75	16.78201	9.11	19.55381
2018-19	28.51	-15.5259	10.00	9.769484
2019-20	42.07	47.56226	11.18	11.8
<b>AAGR</b>		<b>25.587</b>		<b>17.86</b>

Source: Compiled from Statistical Hand Book Assam various Issues, Statistical Hand Book of BTC, various issues and Department of sericulture BTC

**Table 5a: Descriptive statistics showing the growth of employment through Eri**

	minimum	maximum	mean	Standard deviation
Assam	-15.53	82.15	25.58	29.60
BTAD	8.44	46.71	17.87	11.84

Source: Author calculation

Sericulture has become the most promising rural activity generating direct and indirect employment. In First stage mulberry cultivation creates employment on the farm, and secondly cocoon production, which uses the leaf as an input, creates large-scale employment, for the family labour of the food plant growers if the operation is also undertaken by the household to reduce its unemployment in agriculture (Choudhury, 1970). Every kilogram(kg) raw silk produced creates employment for 11 artisans out of which 6 are women (Entreprises, Ministry of Micro Small and Medium, 2021). It is estimated that one man year employment is generated by producing one-kilogram Vanya silk, which means that one family in Vanya sector can get sustainable employment and livelihood if they produce just 1.0 kg of Vanya raw silk (Bhattacharyya & R, 2013)

Table 5. also shows increasing in employment generation through eri culture in Assam and BTAD. In Assam employment generation has increased from 6.76 lakh in 2010-11 to 42.07 lakh in 2019-20, which is about 47.56 per cent jump with AAGR of 25.58 per cent per. In case of BTAD, eri has generated 2.64 lakh to 11.18 lakh employment with AAGR of 17.87 per cent. However, when the mean growth rate of employment generation through eri in Assam and BTAD is concerned, Assam mean growth rate is found to be more than BTAD growth rate.

**Table 6 BTAD's share to Assam on Eri Raw Silk Production and employment**

Year	BTAD share on Eri Raw Silk Production	BTAD share on employment under Eri culture
2010-11	39.12	39.05
2011-12	34.76	34.80
2012-13	20.72	20.72
2013-14	23.10	23.10
2014-15	30.28	30.30
2015-16	30.18	30.20
2016-17	26.36	26.37
2017-18	26.99	26.99
2018-19	35.08	35.08
2019-20	26.58	26.57
	<b>Average share 30.17</b>	<b>Average share 29.31</b>

Source: Author calculation

The share of BTAD eri raw silk production to Assam is observed. BTAD share on eri silk production has found to be declining from 39.12 per cent to 26.56 per cent with the average share of 30.17 per cent during the study period. In case of employment under eri culture,

BTAD share to Assam has been declining from 39.04 per cent to 26.57 per cent with average share of 29.31 per cent.

### **5 Findings and conclusion:**

Sericulture and its unique features play an important role in Indian economy. It is found that Cocoon yield in Assam as well as in BTAD to have a positive trend during the study period. Comparative analysis of growth rate of cocoon yield in Assam and BTAD shows that, the growth rate of mulberry cocoon yield for BTAD is 35.42 per cent (AAGR) and is superior to that of Assam (24.74 per cent). The growth rate of muga cocoon yield is also better for BTAD than Assam with AAGR of 19.42 and 6.51 per cent respectively. The average annual growth of raw eri silk, muga and mulberry production in Assam is 25.59 per cent, 6.85 per cent and 24.64 per cent respectively. In BTAD which is 17.85 per cent, 32.85 per cent and 39.83 per cent comparatively.

The case of employment generation, increasing is observed, 6.76 lakh to 42.07 lakh in 2010-11 to 2019-20 with annual average growth rate of 25.58 per cent per year over the period. In case of BTAD, it has been observed that the employment generation of eri culture is sharp increasing, 2.64 lakh to 11.18 lakh and the annual growth rate is 17.87 per cent.

It is observed that Eri silk culture sometimes faces serious damage due to Pebrine disease, Flacherie disease etc. and that de-motivate the rearers. Disease free seed supply is integral for production and to reduce connivance among rearers. So, watertight preventive measure to be taken by the rearers and the Sericulture department should take strong initiative so that production does not decline. Steady growth in production will attract people towards the Eri culture leading to generation of more employment. Presently E-marketing also plays an important role to capture the wide market. More diversification in production is important to capture marketing for all income groups. Minimum support price needs to be introduced to increase all sericulture production. Easy loan will encourage youth to adopt sericulture as a profession. Since sericulture has provided downstream employment and production for different section and occasion, both nationally and internationally, Government should take initiative to strengthen and industry and to sustain it throughout.

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