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Jute Industry Of Assam And Its Production, Problems And Potentialities

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Abstract

Jute is an important natural fiber cash crop just like cotton crop and grows well in hot and moist climates. India and Bangladesh are the biggest jute producers in the world. India is the largest producer of jute contributing 61.2 percent of the total world production. Jute is the main commercial crop of eastern and northeastern India providing livelihood security to about 5.0 million people. Jute is mainly cultivated by marginal and small farmers in the Eastern and North-Eastern regions of India. Assam is the second largest producer of Jute in India after West Bengal. The main jute-producing districts of Assam are Nagaon, Goalpara, Barpeta, and Darrang district. Assam Co-operative Jute Mill full-fledge jute mill in Assam and produces a variety of jute products. Assam is an agrarian state where 85 per cent of the farmers are marginal or small, having an average operational holding of 1.10 hectares only. Due to growing environmental awareness and ecological concerns, the demand for natural fibers is increasing among environment-conscious consumers across the world. Originally raw jute was used as raw material for packaging industries only. Later it emerged as a source for paper industries, textile industries, soil savers, and decorative and furnishing materials. Jute industries have been facing a challenge from synthetic fibers, which have some advantages compared to jute. Hence it is necessary to assess the viability of jute and the jute sector and come up with a long-term strategy for the development of this sector. This paper analyzed production, problems, and potentialities relating to the Jute industry in Assam.

Keyword: Jute mill, India, Assam, Fiber, Production

1. Introduction:

Agriculture constitutes an indispensable contributing sector to national income and employment, mainly in third-world countries or developing countries. The countries that grow jute on a large scale are mainly India, China, Bangladesh, Thailand, and Nepal. As far as India is concerned, the Indian jute industry and the jute sector are one of the oldest sub-sectors of its Agro-industrial economy. In India, jute is mainly grown in the Eastern and North Eastern states like Bihar, West Bengal, Assam, Meghalaya, Orissa, Tripura etc. It is estimated that the jute sector employs nearly 4.5 million people in the country out of which 0.37 million workers are engaged in organized mills including tertiary sector and allied activities, while it also provides support to the 4 million farmer families in our country. West Bengal, Assam, and Bihar are the major jute-growing states in the country, which account for about 98 percent of the country's jute area and production (State of Indian Agriculture, 2016- 2017). Assam alone produces 1.6 million bales of jute. Assam Co-operative Jute Mill at Silghat in Nagaon district started its commercial production in the year 1970. The mill provides huge employment opportunities and also benefits to local farmers.

Jute is also called the golden fiber of the future because it meets all the scientific standards for being 100% natural and environment friendly, is biodegradable, is renewable, and is considered a safe packaging material as well as a safe material formany other use in the future. Jute is also considered a 'zero waste' material because every part of this natural fiber is used and nothing goes to waste, starting from the leaves of the jute plant which is cooked and eaten as a vegetable, the stick gets used as a domestic fuel after extraction of the jute fiber and another part of its stem is used as a building material. The leaves which the plant sheds, go to enrich the soil.

Jute is also known as the "golden fiber of the future" since it satisfies all scientific requirements to be completely natural, environmentally benign, biodegradable, renewable, and safe for use in both packaging and several other applications in the future. Jute is also referred to as a "zero waste" material because every part of this natural fiber is utilized and nothing is wasted. The stick is used as a domestic fuel after the jute fiber is extracted, and another portion of the stem is used as a building material. The leaves of the jute plant are cooked and eaten as a vegetable. The plant uses its fell leaves to improve the soil.

Environmental scientists have established that one acre of jute plants absorbs nearly 6 MT of CO2 from the atmosphere in its maturity period of 120 days and it releases 4.4 MT of oxygen in the same period. This is several times more than the normal trees.

2. Objectives:

The main objectives of the study are-

1. To study the existing status of Jute industry in India.
2. To study the existing scenario of jute production in Assam.
3. To examine the problems and potentialities of Jute industry in Assam.

3. Research Methodology:

The paper is purely based on secondary data on area, production and productivity of jute collected from various published and unpublished sources. To study the economic prospects of jute secondary data has been collected from various annual report of Assam Cooperative Jute Mill Limited(ACJML) and Statistical Handbook of Assam, The data has been also collected from Central Statistical Organization, Directorate of Economics and Statistics, Food and Agriculture Organisation and National Jute Board, www.indiastat.com.Literature has been reviewed and analysed on the basis of the objectives of the study.

4. The Status of Jute Industry in India:

Jute industry is one of the most important traditional industry in India. The jute industry was established for the first time in India in the year 1885. The first power driven jute mill was set up at Rishra, near Kolkata. After that a good number of jute mills started to set up near Kolkata just by the two sides of Hoogly river. During 1930 , i.e. during the period of great depression, this industry had to face a serious setback. But during the second world war this industry had again reached to its peak position.

There were attempts to grow jute in countries like America, Egypt, Brazil, Africa, but they could not stand in front of Indian jute.Jute or jute is a cash crop. Jute is also called Jute or Patua. It is a fibrous product. India, Bangladesh, China, and Thailand are their main producing countries. More than half of the global production of jute is produced in India. Three-fourths of Indian jute is consumed in the country, and one-third of the production is imported by countries like the UK, Belgium, Germany, France, Italy, and the USA.

Productivity of jute in India is higher than world average and in Bangladesh, the second largest producer, but realized yield is much lower than the potential yield of more than 3 tonnes per ha achieved in front line demonstrations(FLDs) on different improved technologies.Jute is the second most important natural fibre crop of India after cotton and occupies about 0.4 percent of total area under agricultural cropsin the country(Price Policy for Jute, 2020-21 Season).

According to the National Jute Board, about 40 lakh farmers and 8 lakh hectares of land in the country are related to jute cultivation. Jute cultivation is labor intensive. It is a fiber crop grown in the Ganga delta. Among natural fibrous agricultural products, jute ranks second only to cotton. It is being cultivated in 83 districts of West Bengal, Assam, Odisha, Bihar, Uttar Pradesh, Tripura, and Meghalaya. West Bengal is the largest jute-producing state in the country and produces more than half of the total jute produced in the country.Jute is also related to the oldest agro-industry in the country. The country's first jute mill was started in Kolkata in 1855. There are 83 jute mills in the country, in which more than 1.6 million tonnes of jute or its products are produced annually. About 3 lakh people are getting direct employment from the jute industry. Jute exports earn the country about $4 million in foreign exchange. The Ministry of Agriculture is determined to expand jute cultivation to the maximum and increase its yield. This will increase the income opportunities for the artisans making jute products apart from the farmers.

As per the data of Ministry of Textiles, at present we have 77 composite jute mills in the country located in different states as - West Bengal -60, Andhra Pradesh -7, Bihar -3, Uttar Pradesh- 3, Assam -1, Orissa -1, Chhattisgarh – 1, Tripura – 1.

In addition to these mills we also have eight, 100% export oriented manufacturing units which produce high quality yarn, whittle (rope), fine hessian cloth, jute decorative products, etc. As per a study report published by the Jute Manufacture Development Council (JMDC) in 2006, there has been a healthy growth in the number of units making jute diversified products. There were 673 such units in the country in 1999-2000 which rose to 1320 in 2005.

In our country Orissa, Assam, Tripura, West Bengal, Bihar, Uttar Pradesh are the leading cultivated states with more than 70 jute mills currently operate in India, our country produces around 100 lakh bales of fiber. Considering the decentralized sectors, there are various small scale jute manufacturers, wholesale suppliers and exporters who come up with attractive handicrafts, creative decorative items, particle board, jute paper and pulp, twins and many more quality jute products.

Our country possesses some of the most skilled and experienced craftsmen who are capable of catering the varied customer requirements of jute goods. Today, India holds the tag of being largest producer of raw jute and products made of jute. Seeing growth in this sector, several financially sound organizations have set foot into the industry to boost the production of our traditional fiber and spread Indian jute products all over the world. There are various ultramodern researches and development centers set up to support this purpose and discover improved machines and techniques which help in manufacturing foreign standard products.

5. The Scenario of Jute Production in Assam:

Jute is one of the vital cash crops in terms of livelihood creations as well as for its diverse utilities among agrarian families of Assam. Like the other parts of the nation, Jute farming in the region is also dominated by marginal and small farmers. Due to limited holding and small amount of production, it is difficult to attain production cost efficiency at the grower's level. Besides, the marginal and small grower's regularly face several other constrains while marketing their produces, which has widespread negative influence upon their farming decision in the subsequent crop years.

Assam has one of the famous state of India in respect of jute production. Every year a good quantity of raw jute is produced in the Nagaon, Goalpara, Barpeta and Darrang districst of Assam. Previously as there was no jute mill in Assam the whole amount of raw jute produced in Assam were exported to kalkata. As there was sufficient demand for various products viz., gunny bag, rope etc. in Assam, Co-operative Jute Mill was established at Silghat of Nagaon district. In 1970 this mill started its commercial production. In 1971-72 this jute mill produced 729 tonnes of jute products. After that total production of jute was increased to 4299 tonnes in 1979 and then to 5951 tonnes in 1981. Total production of jute products has further increased to 6 thousand tones in 1982 and then it declined to 5.0 thousand tones in 1994. At present Assam has regularly exporting about one million tone of raw jute per annum to kalkata. (Dhar P. K., 1997)

The area, production and average yield per hector of jute production in Assam shows in Table 1.

Table :1: Jute Production in Assam

Area, Production and Average Yield of Jute			
Year	**Area (in Hect.)**	**Production (in Tonnes)**	**Average yield (in Kg/Hect.)**
2016-17	75140	802747	1923
2017-18	69926	841150	2165
2018-19	65789	761571	2084
2019-20	64247	791512	2218
2020-21	62879	773883	2215

Source: Statistical Handbook of Assam

It has been seen from the table that there is a fluctuation in the production of jute because of the dependence on rain fall and its fluctuation during the rainy seasons. (Khound, S.,2023)

6. District wise Jute Production in Assam:

The district-wise area and production of jute for the year 2015-2016 are presented in Table: 2. It showed that Dhubri has the highest percentage of area under jute (18.60%) whereas the least area was observed in Dibrugarh (.009%) to the total area under jute in the state. However, in case of production the highest percentage was observed in Nagaon (20.73%) and the lowest was observed in Dibrugarh (.009%) to the total production in the state. Highest production was in Nagaon due to both area and high productivity (1,79,536 bales /bales of 180 Kg) of jutein the district.

Table:2: District wise Jute Production in Assam: 2015-16

Sl. No.	District	Area (in hect.)	Percentage to total area	Ranking	Average Yield	Production			
					Dry Fibre (in kg/hect)	Tonnes	Bales (Bales of 180 Kg)	Percentage to total production	Ranking
1	Baksa	810	1.12	15	1155	936	5198	.60	15
2	Barpeta	6169	8.55	4	1969	12146	67478	7.79	5
3	Bongaigaon	2481	3.43	12	1969	4886	27145	3.13	11
4	Cachar	50	.06	19	2161	108	600	.069	20
5	Chirang	1035	1.43	14	1731	1792	9955	1.14	14
6	Darrang	4254	5.89	9	2893	12307	68371	7.89	4
7	Dhemaji	73	.10	18	2161	158	876	.10	18
8	Dhubri	13420	18.60	1	1751	23502	130565	15.08	2
9	Dibrugarh	7	.009	26	2161	15	84	.009	26
10	Dima Hasao	91	.126	17	2161	197	1093	.126	17
11	Goalpara	4611	6.39	6	2391	11025	61249	7.07	6
12	Golaghat	294	.40	16	2161	635	3530	.40	16
13	Hailakandi	28	.038	24	2161	61	336	.03	24
14	Jorhat	49	.067	21	2161	106	588	.067	21
15	Kamrup(Metro)	42	.058	22	2161	91	504	.058	22
16	Kamrup (Rural)	4810	6.67	5	2281	10973	60962	7.04	7

17	Karbi Anglong	1405	1.95	13	2161	3037	16868	1.94	13
18	Karimganj	56	.077	19	2161	121	672	.077	19
19	Kokrajhar	4259	5.90	8	2038	8680	48222	5.56	8
20	Lakhimpur	50	.06	20	2161	108	600	.069	20
21	Morigaon	6552	9.08	3	1203	7882	43789	5.05	9
22	Nagaon	10510	14.57	2	3075	32317	179536	20.73	1
23	Nalbari	2724	3.77	11	1729	4710	26166	3.02	12
24	Sibsagar	29	.04	23	2161	63	348	.04	23
25	Sonitpur	3886	5.38	10	1708	6636	36871	4.25	10
26	Tinsukia	9	.012	25	2161	19	108	.012	25
27	Udalguri	4424	6.13	7	3015	13336	74091	8.55	3
Assam :		**72128**	**100**		**2161**	**155847**	**865805**	**100**	

Source: Author calculation based on data of Agricultural Statistics of Assam

Table:3:District wise Jute Production in Assam:2018-19

Sl. No.	District	Area (in hect.)	Percentage to total area	Ranking	Average Yield	Production		
					Dry Fibre(in kg/ hect)	(Balesof 180 Kg)	Percentage to total production	Ranking
1	Baksa	485	.73	15	1303	3510	.46	15
2	Barpeta	5717	8.68	4	2172	68977	9.05	3
3	Bongaigaon	2455	3.73	12	2025	27617	3.62	12
4	Cachar	32	.048	22	2084	370	.048	22
5	Chirang	2019	3.06	13	1681	18851	2.47	13
6	Darrang	3988	6.06	8	2546	56408	7.40	5
7	Dhemaji	68	.10	18	2084	788	.103	18
8	Dhubri	9585	14.56	2	2417	128694	16.89	2
9	Dibrugarh	10	.01	26	2084	116	.015	26
10	Dima Hasao	75	.11	17	2084	868	.113	17
11	Goalpara	3538	5.37	9	1792	35223	4.62	9
12	Golaghat	209	.31	16	2084	2420	.31	16
13	Hailakandi	15	.022	25	2084	174	.022	25
14	Jorhat	16	.024	24	2084	186	.024	24
15	Kamrup(Metro)	34	.051	21	2084	394	.051	21
16	Kamrup(Rural)	4470	6.79	6	1577	39167	5.14	8
17	Karbi Anglong	1367	2.07	14	2084	15826	2.07	14
18	Karimganj	50	.076	19	2084	579	.076	19
19	Kokrajhar	3250	4.94	10	1656	29902	3.92	11
20	Lakhimpur	39	.059	20	2084	451	.059	20
21	Morigaon	6139	9.33	3	1770	60367	7.92	4
22	Nagaon	9956	15.13	1	2742	151668	19.91	1
23	Nalbari	4845	7.36	5	1520	40913	5.37	7
24	Sibsagar	19	.028	23	2084	220	.028	23
25	Sonitpur	3202	4.86	11	1721	30619	4.02	10
26	Tinsukia	4	.006	27	2084	46	.006	27
27	Udalguri	4202	6.38	7	2023	47217	6.19	6
Assam :		**65789**	100		2084	**761571**	**100**	

Source: Author calculation based on data of Agricultural Statistics of Assam

But in the year 2018-2019 (in Table:3) it showed that Nagaon has the highest percentage of area under jute (15.13%) whereas the least area was observed in Tinsukia(.006) to the total area under jute in the state.

(i) Major Jute Production Districts in Assam:

Table:4 and 5 shows the major jute production districts (area and production) of Assam for the years 2012-13 and 2014-15.In the year 2012-13,Dhubri district has the highest percentage of area(20.55%) and highest production (19.90%) under jute cultivation. However, despite the jute cultivated area in Nagaon district (14.12%) being lower than that of Dhubri district (18.34%) in 2014-15, jute production in Nagaon district (21.90%) is higher than in Dhubri district. In the year 2012-13, Barpeta district has the lowest percentage of jute cultivated area(2.03%) and the lowest percentage of jute production (1.06%). On the other hand, in the year 2014-15, Chirang district has the lowest percentage of jute cultivated area (1.47%) and the lowest percentage of jute production (1.18%).

Table:4: District wise Jute Production in Assam: 2012-13

Sl. No.	District	Area (in hect.)	Percentage to total area	Production		
				Bales (Balesof 180 K.g.)	Percentage to total production	Ranking
1	Barpeta	1294	2.03	5823	1.06	14
2	Bongaigaon	2278	3.58	24694	4.51	10
3	Chirang	2165	3.40	18561	3.39	12
4	Darrang	3330	5.23	26789	4.89	8
5	Dhubri	13075	20.55	108922	19.90	1
6	Goalpara	4150	6.52	38828	7.09	5
7	Kamrup(Rural)	3987	6.26	25533	4.66	9
8	Karbi Anglong	1713	2.69	14684	2.68	13
9	Kokrajhar	3884	6.10	33294	6.08	6
10	Morigaon	6345	9.97	61861	11.30	3
11	Nagaon	9670	15.19	87962	16.07	2
12	Nalbari	4660	7.32	46494	8.49	4
13	Sonitpur	2646	4.15	22383	4.09	11
14	Udalguri	4428	6.95	31272	5.71	7
Assam		63,625	100	5,47,100	100	

Source: Author calculation based on data of Agricultural Statistics of Assam

The figure:1 given below shows the district wise jute production for the year 2012-13.

Figure:1: District wise Jute Production in Assam: 2012-13

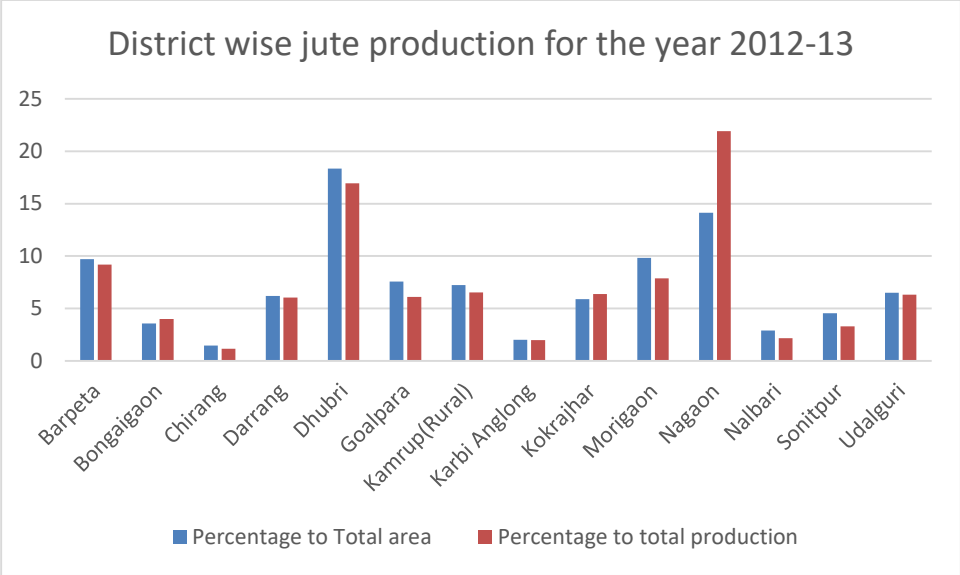


Table:5: District wise Jute Production in Assam: 2014-15

Sl. No.	District	Area (in hect.)	Percentage to total area	Production		
				Bales (Bales of 180 K.g.)	Percentage to total production	Ranking
1	Barpeta	6725	9.72	69594	9.19	3
2	Bongaigaon	2478	3.58	30228	3.99	10
3	Chirang	1020	1.47	8966	1.18	14
4	Darrang	4299	6.21	45878	6.05	9
5	Dhubri	12690	18.34	128294	16.94	2
6	Goalpara	5233	7.56	46222	6.10	8
7	Kamrup(Rural)	5006	7.23	49501	6.53	5
8	Karbi Anglong	1395	2.01	15205	2.00	13
9	Kokrajhar	4079	5.89	48411	6.39	6
10	Morigaon	6805	9.83	59733	7.88	4
11	Nagaon	9771	14.12	165838	21.90	1
12	Nalbari	2010	2.90	16406	2.16	12
13	Sonitpur	3142	4.54	24944	3.29	11
14	Udalguri	4516	6.52	47861	6.32	7
Assam		69,169	100	7,57,081	100	

Source: Author calculation based on data of Agricultural Statistics of Assam

Figure:2: District wise Jute Production in Assam: 2014-15

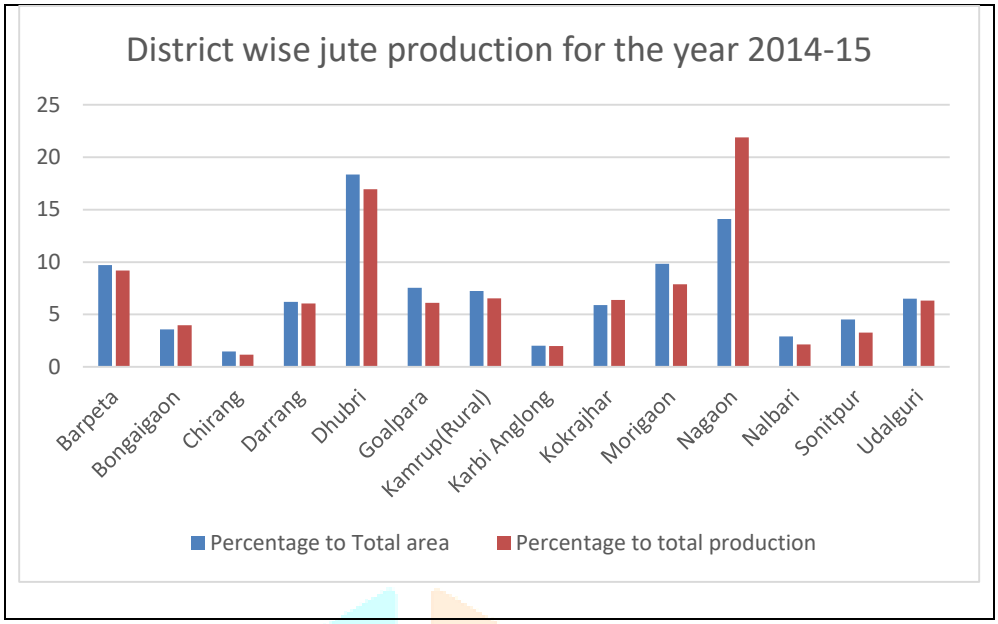


Table:6 and 7 shows the major jute production districts (area and production) of Assam for the years 2015-16 and 2018-19. Nagaon district with the highest jute production has increased by area of percentage between 2015–16 and 2018–19 (from 14.57% to 15.13%) but production has decreased from 179536 bales to151668 bales .On the other hand, both jute cultivated area and productivity have increased in Barpeta district. Jute cultivated area has increased from 8.55% to 8.68% and jute production increased from 67478 bales to 68977 bales respectively.

Table:6: District wise Jute Production in Assam: 2015-16

Sl. No.	District	Area (in hect.)	Percentage to total area	Production		
				Bales (Bales of 180 Kg)	Percentage to total production	Ranking
1	Barpeta	6169	8.55	67478	7.92	5
2	Bongaigaon	2481	3.43	27145	3.18	11
3	Chirang	1035	1.43	9955	1.16	14
4	Darrang	4254	5.89	68371	8.03	4
5	Dhubri	13420	18.60	130565	15.33	2
6	Goalpara	4611	6.39	61249	7.19	6
7	Kamrup(Rural)	4810	6.67	60962	7.16	7
8	Karbi Anglong	1405	1.95	16868	1.98	13
9	Kokrajhar	4259	5.90	48222	5.66	8
10	Morigaon	6552	9.08	43789	5.14	9
11	Nagaon	10510	14.57	179536	21.09	1
12	Nalbari	2724	3.77	26166	3.07	12
13	Sonitpur	3886	5.38	36871	4.33	10
14	Udalguri	4424	6.13	74091	8.70	3
Assam		72128	100	851277	100	

Source: Author calculation based on data of Agricultural Statistics of Assam

Figure:3: District wise Jute Production in Assam: 2015-16

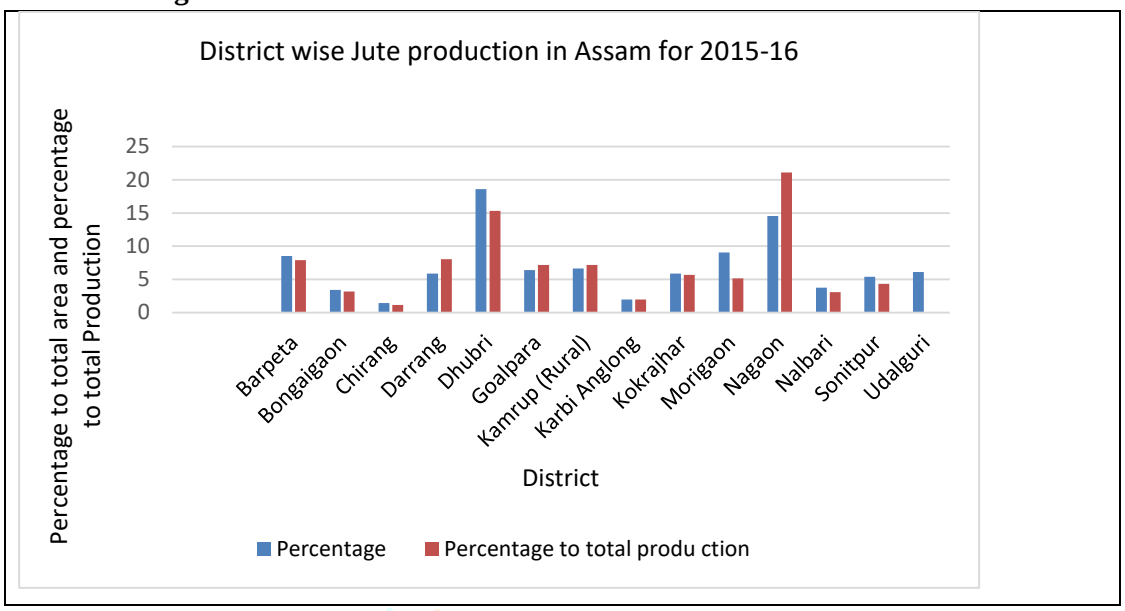
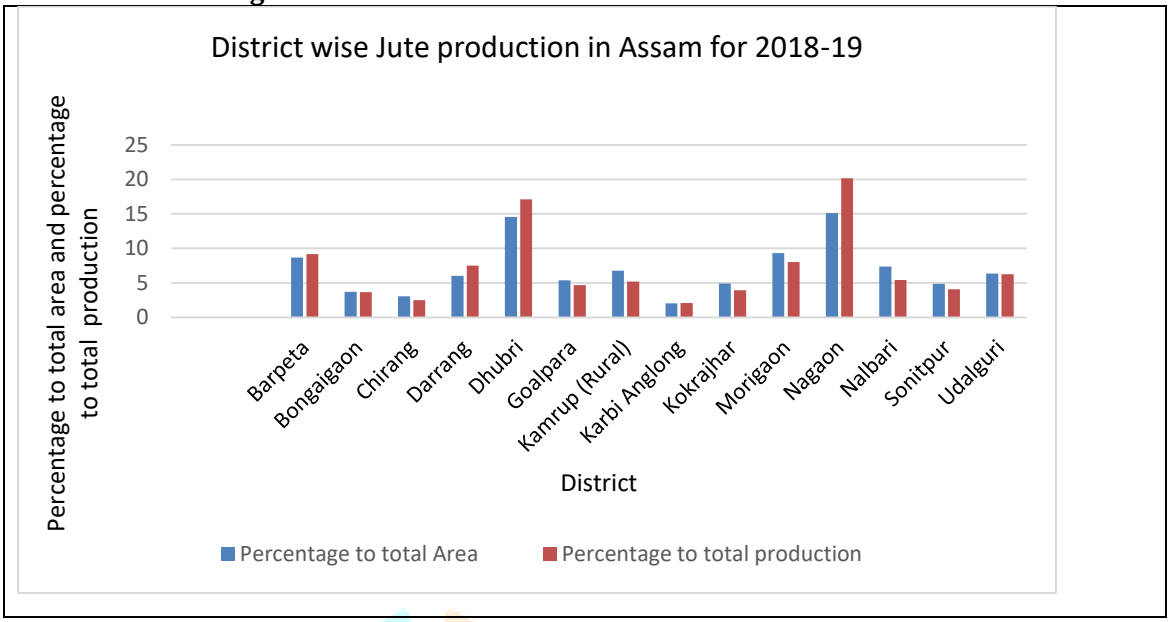


Table:7:District wise Jute Production in Assam:2018-19

Sl. No.	District	Area (in hect.)	Percentage to total area	Production		
				(Bales of 180 Kg)	Percentage to total production	Ranking
1	Barpeta	5717	8.68	68977	9.17	3
2	Bongaigaon	2455	3.73	27617	3.67	12
3	Chirang	2019	3.06	18851	2.50	13
4	Darrang	3988	6.06	56408	7.50	5
5	Dhubri	9585	14.56	128694	17.12	2
6	Goalpara	3538	5.37	35223	4.68	9
7	Kamrup (Rural)	4470	6.79	39167	5.21	8
8	Karbi Anglong	1367	2.07	15826	2.10	14
9	Kokrajhar	3250	4.94	29902	3.97	11
10	Morigaon	6139	9.33	60367	8.03	4
11	Nagaon	9956	15.13	151668	20.18	1
12	Nalbari	4845	7.36	40913	5.44	7
13	Sonitpur	3202	4.86	30619	4.07	10
14	Udalguri	4202	6.38	47217	6.28	6
Assam		**65789**	**100**	**751449**	**100**	

Source: Author calculation based on data of Agricultural Statistics of Assam

Figure:4: District wise Jute Production in Assam: 2018-19



7. Summary:

Data collected for the years 2012-13, 2014-15, 2015-16 and 2018-19 in 14 districts with the highest production of jute. Comparing the area (in hect.) and jute production (bales of 180 k.g.) of these 14 jute producing districts, it has been found that Dhubri district has the highest in the area of jute cultivation and production is also the highest (Rank:1) in the year 2012-13. On the other hand, Nagaon district has the highest in the area and production of jute cultivation (Rank:1) during the years 2014-15, 2015-16 and 2018-19.

8. Problems and Potentialities of Jute Industry in Assam:

It is really a matter of pity that Assam in spite of being the second largest jute producing state in India has not been able to draw sustenance from development and diversification of jute products. Haphazard industrialization thread to environmental degradation. Besides, people are now much more concern about green purchase (Sarumathi,2014). They prefer to buy environmentally friendly goods. Eco-friendly products created from jute have a promising future market. As a result, there is a ready and expanding market for goods produced of jute. About 70 per cent of total jute produced in Assam is purchased for processing outside the state. Unfortunately, the state's efforts for starting and operating jute mills have not been a happy experience, in spite of having a good potential for the same.

Although jute breaks down spontaneously, it is favoured by pro-people, scientific, and environmentally conscious groups and institutions worldwide. UNESCO has specifically encouraged the use of natural fibers like jute for food packaging materials. Due to intense competition, peasants are being forced to sell raw jute at a price below the cost of production; even if their output has increased, they are going through a crisis. As a result, a significant amount of the jute production is being replaced by other crops. This will ruin hundreds of farmers' and jute workers' livelihoods. In the near future, there will be a decrease in the output of raw jute and the jute industry will come to an end.

Jute plants inhale carbon dioxide and exhale oxygen that results air purification. On average, 7302 thousand tonnes CO2 are absorbed and in return 5309 thousand tonnes O2 are omitted by jute plants (Islam and Ahmed, 2012, p.26). Jute composite is applied in the automobile sector and vehicles. Using these composites can prevent lots of CO2 emissions in the environment due to saving average 21% fuel consumption (Ferdous and Hossain, 2017, p. 40). The fertility of land is increased with the rotten leaves and roots from jute plants. On average jute plants produce 956 thousand tones leaves per year. Jute plants also produce 423 thousand tonnes root yearly and these roots and leaves get rotten and mixed with the soil. These rotten leaves provide different natural fertilizers such as urea, sulfates, dolomite to the soil (Islam and Ahmed, 2012, p.26). During the plantation of jute, farmers generally use cow dung which is a natural fertilizer. So, jute plantation is done naturally without making any harm to the soil (Abdullah, 2014, p. 3-4).

Jute has gained tremendous significance as environmental awareness about non-biodegradable plastic has grown worldwide. Within our own nation, state and federal governments began enacting legislation prohibiting the use of specific non-biodegradable plastic types in response to increasing environmental issues. The majority of state governments currently prohibit the usage of plastics. This has increased the jute industry's demand for jute (Jahan, 2019).

9. The Future of Assam Jute Industry:

Thus, jute is being used extensively to create a variety of goods, mostly because it is environmentally benign and biodegradable. Apart from its conventional use such as sacking and packaging material, jute has seen a significant surge in creative usage during the past two to three decades. These uses include:

i) Jute bags with multiple uses.

ii) Jute bags of food grade for the coffee and tea industries

iii) Combining jute with other fibers, such as cotton or synthetic wool, to create fabrics for the clothing industry

iv) Geo textiles made of jute

v) Auto mobile panels made of jute being used by Audi, Porsche, Mercedes Benz car making companies.

vi) Jute panels being used in rail coaches.

vii) Particle board with jute.

viii) Carpets, doormats, and floor coverings made of jute.

ix) Five-star hotels are using jute sandals.

x) Jute decorative items, jute jewellery used in the fashion enterprise,

xi) Blending jute along with polyester for making jute blankets and flooring materials.

xii) It is also being tried to produce quality paper from jute.

M. lab scale experiments have shown that quality jam, jelly and sauce can be produced from resultant allied fiberof jute and the cost of such products makes it economically viable as well. Such products have been found to be fit forhuman consumption also.

10. Conclusion:

In Assam, agricultural sector alone absorb 53 per cent of population while secondary and tertiary sector is only 22 per cent. Agricultural sector already gets saturation point in this respect. So scope remains in the creation of employment opportunities in secondary and tertiary sectors.

In Assam, among various agro-based raw materials, jute is one such cash crops which can be utilized for making various diversified jute made products. In Assam, at present day context, the most emergence issue is to create job oriented economy or sector both in rural as well as urban areas. Secondary sector remains the most probable areas where lot of employment generation are there. Because primary sector already get overcrowded and in rural areas there are limited scope to expand tertiary sector. India is a good exporter of jute and jute made products. The value of average export from jute made goods is estimated at Rs11456 million per annum. So there is a greater scope for Assam to earn foreign exchange by catching opportunities offered by the policy of reform and occupy foreign market by exporting jute made diversified products. To achieve this, only requirement is government initiatives and plans and policies.

There need to be at least one jute mill established in each district of Assam due to the abundant jute production. Therefore, via the support of the government, the corporate sector, or private-public partnerships, contract farming in jute can transform the rural economy by stimulating agro-based industries. The government might tackle issues such as unemployment, poverty, and inequalities in income distribution between rural and urban economies by introducing MSME projects. Additionally, joblessness can be identified as the fundamental cause of issues like "emergence of insurgencies."

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