

An Analytical Study on Growth of Tea Industry in Assam

Miss Juri Gaonkhowa

Department Of Economics, University Of Science And Technology Meghalaya, India

Abstract:

Assam is a major tea-producing region in India. The tea industry of Assam is one of the largest in the world and plays a significant role in the state's economy. Assam's tea is known for its bold, brisk, and malty flavor, which makes it a popular choice for black tea lovers worldwide. Tea plantations in Assam cover vast areas, and the region's climate and geography are ideal for tea cultivation. Tea industry in Assam has experienced significant growth over the years, contributing substantially to India's tea production. In estimation the annual average production of tea is about 630-700 million kg in Assam. Average productivity of Assam is around 1838.5 kg per hectare during the selected periods. Factors such as favorable climate, rich soil, and a long growing season have supported the cultivation of high-quality tea in the region. The industry has been advancement in cultivation practices, technology adoption, and export strategies, bolstering its overall growth and economic importance for the region.

The tea industry in Assam had been facing both challenges and opportunities. Factors such as climate change, fluctuating market prices, and labor-related issues had posed challenges. However, efforts were being made to address these issues through technological advancements, sustainable practices and diversification of products. It would be advisable to check the latest reports or industry updates for the most current information on the growth of the tea industry in Assam in the last few years.

Keywords: Growth, Tea plantation, Region, Economy.

INTRODUCTION:

Assam is a major tea producing region in India which produces robust and flavorful black tea. The State is renowned globally for its richly colored and aromatic tea. Assam's tea industry is the country's largest, dependent on the plantations it provides livelihoods to millions with many others directly or indirectly. Robert Bruce ascertains growing wild tea plants in the upper Brahmaputra Valley in 1823. Afterwards, the government was started a tea garden in the erstwhile Lakhimpur district in 1833.

Cut to moment, in annual Assam now produces nearly 700 million kg of tea and accounts for about half of overall tea production of India. The state also bring about periodic foreign exchange earnings estimated at an original to Rs 3000 crore. India as whole contributes 23 percent to the global tea output and employs around 1.2 million workers in the tea plantation sector. Substantially, Assam has been holding the second place as a commercial tea production region after southern China.

Through increase in income, production and setting up of processing plants, the tea cultivation in Assam has a significant impact on overall social and economic wellbeing of the state and leading to improve the state's GDP as well. Therefore, we thought it imperative to have an analytical view of

overall productive process of Tea in Assam. Our aim is to understand the growth pattern in production, productivity of tea in the state.

The Environment for Tea: Assam is located in north-east India. The environment in Assam is conducive to tea cultivation due to its specific geographical and climatic conditions. The factors such as climate, heavy rainfall during monsoon season, soil, altitude collectively create an optimal environment for tea cultivation in the state, making it one of the major tea-producing regions globally. The valley is creating the perfect natural setting by offering rich loamy and fertile soil to the region for the production of tea.

Geography: The tea plant is grown in the lowlands of Assam, unlike [Darjeeling](#) and [Nilgiri](#) which are grown in the highlands. The region's geography plays a crucial role in tea cultivation. Assam's low-lying plains along the Brahmaputra River create an ideal environment for tea bushes. The fertile alluvial soil and a subtropical climate with high rainfall contribute to the rich and robust flavor of Assam tea. The Brahmaputra valley, where most tea estates are located, provides optimal conditions, including high humidity and temperatures, fostering the growth of the *Camellia sinensis* plant used for tea production. Each year, the tea estates of Assam inclusively yield roughly 1,500 million pounds (680,500,000 kg) of tea.

Export: By making about 10% of the total exports in the world, India is among the top 5 tea exporters. In the year 2021, around US\$ 687.9 million valued tea was exports from India. In consideration Indian Assam, Darjeeling and Nilgiri tea are one of the finest in the world. About 96% of the total exports of India's tea makes up by black tea which often exported out in majority from India. The types of tea through India are black tea, regular tea, green tea, herbal tea, masala tea and lemon tea. Out of these, black tea, regular tea and green tea make up approximately 80%, 16% and 3.5% of the total exported from India. India's total tea export during 2021-22 in volume was 201 million kg. The total exports during January-April 2022 was 65 million kg and was valued at US\$ 215 million, a 9% increase from the same period in 2021. India export tea to further than 25 countries across the world. Some of the major importers of tea from India are Russia, Iran, UAE, USA the UK, Germany and China. Among these country Iran, UAE and USA are India's top tea export destinations. During 2021-22, the three countries imported 29.3 million kg of tea from India. In combined the value of total US\$ 277.3 million tea exports to these countries. Some other tea export destinations of India combined accounted for US\$ 116 million of tea exporters from India contributing to 16% of the tea export revenue for the year 2021-22.

Objectives: With the above background we thought it imperative to have an analytical study of tea production in Assam and compare that of with national average. Keeping this in mind our study proposes following objectives:

1. To find out the growth trend of tea production in Assam and compare it with that of India.
2. To find out the contribution of different districts in the total production of tea of Assam.

REVIEW OF LITERATURE

INTRODUCTION: Review of literature is considered as fundamental part of any study. It plays a significant role in shaping the prospective of researching to set the tone of the study. A huge volume of literature is available with regard to export of tea from Assam. Many studies in tea sectors were initiated by individuals, research organizations, state and central governments. Every effort was made to locate the available literature related to the tea plantations especially the studies focused on the abandonment and closure. An outline of related literature reviewed is given below.

Sir Edward Gait (1926; 2008), perceived that a lot of self-sustained village communities are there in a rural society of Assam. People used to cultivate their own land, and naturally they preferred independent and self-sufficient position of cultivator because of their self-sustained nature. There was scarcity of laborers particularly for working in tea plantation. At very early stage tea planters faced difficulty in getting workers for plantation. To meet growing demand of plantation work, tea garden coolies were brought from elsewhere and in 1853 Assam Company started to import laborers from Bengal. For which legislation was made by British policymakers and from 1863 to 1903 a series of enactments were passed regarding hiring laborers from outside Assam.

Achyut Krishna Borah (1999), studied the socio-economic condition and income and expenditure pattern of plantation workers in Lepetkota tea estate in Assam. The study found that majority of the Indian tea producers are not getting equitable prices in the market for their tea which causes wage cuts to the workers and this further affects the tea industry as they faced lack of strong and skilled labor force as a result of improper educational facilities for the children of the tea estate workers in the study area.

Gadapani Sharma (2007), his study is highlighted the economic condition of tea community of Lohpohia Tea Estate, and how to fail to provide the facilities to labor at epidemic time. Agitation of labor is common against management. Poverty, addiction of male, lack of education and health facilities are the unchangeable problems in their lives.

Pallabi Devi (2014), their study has been designed to inform the socio-economic status of the tea garden women workers of Sonitpur District of Assam. Women could be an important role player in the uplifting of the society. For development of human society participation in economic, political and social field is essential.

METHODOLOGY

Introduction: The study is primarily based on secondary date for the period of 12 years from 2010-2022 (August). The expansion and cultivation of tea in this state has attracted huge investment during this period. The Secondary data has been gathered from various sources such as tea board of India, Regional office of Tea board of India, Handbook of Indian Economy, Economic Survey of Assam and other government and non government publications.

Limitation of the study: The study however brings almost all vital issues related to tea production in Assam from the year 2010 to 2022 (August). But the results and findings presented in it may not be applicable for deeply analyses about the tea production and related issues in Assam. An attempt has been

made to highlight a few issues of growth trend of production and various related issues of tea in Assam during the selected years only.

DATA ANALYSIS AND INTERPRETATION:

This chapter takes in the analysis, demonstration and interpretation of the findings deriving from the study. To demonstrate the study properly analyzing the data in order to test the hypothesis and answer the research questions is necessary.

INTRODUCTION: Data analysis is regarded as an important step and heart of the research in research work. Data analysis entails that the analysis break down data into constituent parts to obtain answers to research questions and to test hypothesis. The very next step after collecting data is analyzed and interpreted them in a manner to meet a factual result to the study. This chapter focuses on the analysis and interpretation of data collected for this study and presentation of data.

Area and No. of Tea Gardens: It refers to identify the participation of Assam in plantation all over the country. It describes the contribution of the state in plantation of Tea in different categories i.e. area, no of gardens, production, and average yield.

Table-1: No. of Tea Gardens & Area under Tea Cultivation in Assam.

Year	No. of Tea Gardens	Area Under Tea
2010	760	322
2011	765	322
2012	78856	322
2013	69220	322
2014	77710	304
2015	83566	316
2016	85344	311
2017	88442	314
2018	101850	338
2019	108136	337
2020	122440	347
2021	122440	347

Sources: Tea Board of India.

Table-1 illustrated the no. of tea gardens and area under tea cultivation in Assam. As we can see that in the no. of tea gardens column from 2010 to 2011, only 5 tea gardens increases. After 2012 it increases from 765 to 78856 in 2013, it clearly shows a huge difference as the area under tea cultivation remains same from 2010 to 2013. Through there is increased in no of tea gardens in 2014 to 77710 from 69220 in 2013, the area under tea were decreased in 2014 to 304. From 2014, there was an increasing trend in no. of tea gardens column whereas a variation has been shown in second column. There is so much fluctuation in the growth trend for both no. of tea gardens and area. It also depicts a non-linear correlation between no. of tea gardens area under tea cultivation among the selected year for this study.

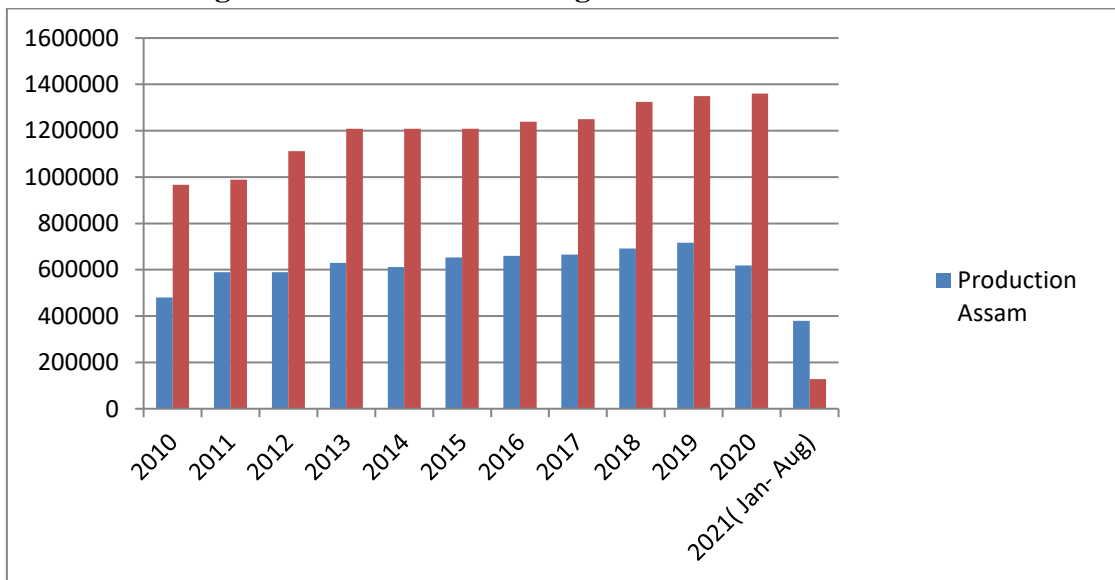
Production and Average Yield:

Table-2: Production & Average Yield of Assam & India.

Year	Production		Average Yield	
	Assam	India	Assam	India
2010	480286	966403	1492	1724
2011	589110	988323	1830	1764
2012	590120	1111760	1833	1919
2013	629050	1208780	1953	2143
2014	610970	1208780	2010	2143
2015	653185	1208660	1665	Nil
2016	659740	1239150	2112	Nil
2017	665330	1250490	2119	Nil
2018	691910	1325050	2047	Nil
2019	716490	1350040	2126	Nil
2020	618200	1360810	1781	Nil
2021(Jan-Aug)	379790	128303	1094	Nil

Source: Tea Board of India.

Figure: Production & Average Yield of Assam & India.



Sources: Tea Board of India.

In the above given table-2 and figure present that production in Assam and India is increased in a diminishing rate. In the year 2010, production in Assam was 480286 it increased to 589110 in 2011. After that production increased in a lower rate. Production in India also increased but not in a prominent rate it increases in a smaller rate than Assam. The highest Average yield in Assam is 2126 in the year 2019 among the selected year. The production of tea is also high in that year in Assam.

Table-3: District-wise Area, Production and Average Yield of Tea in Assam as per Plantation District.

Plantation District	Area Under Tea Cultivation (in Hectare)			Production (in M.Kg.)			Average Yield (Kg. per Hectare			
	2020	2021	2022	2020	2021	2022	2020	2021	2022	
1	2	3	4	5	6	7	8	9	10	
Kokrajhar	2775.74	2775.74	2775.74	3.37	4.25	2.66	1214.0	9	1531	958
Dhuburi	1236.84	1236.84	1236.84	2.38	2.64	1.35	1924.2	6	2134	1091
Goalpara	634.21	634.21	634.21	1.36	1.64	1.06	2144.4	2586	1671	
Morigaon	411.01	411.01	411.01	0.95	0.89	0.53	2311.3	8	2168	1291
Nagaon	10894.64	10894.64	10894.64	11.86	11.8	7.44	1088.6	1	1083	683
Sonitpur	26498.11	26498.11	26498.11	42.3	44.6	27.26	1596.3	4	1683	1029
Lakhimpur	6928.89	6928.89	6928.89	13.41	13.96	8.43	2042.3	2015	1217	
Dhemaji	1738.26	1738.26	1738.26							
Tinsukia	57008.79	57008.79	57008.79	122.1	138.8	81.1	2141.9	5	2436	1423
Dibrugarh	53380.89	53380.89	53380.89	108.5	118.3	70.16	2034.2	5	2217	1314
Sivsagar	15140.13	15140.13	15140.13	70.07	74.25	44.78	4628.1	4904	2958	
Charaideo	24288.18	24288.18	24288.18			0.52			21	
Jorhat	26497.77	26497.77	26497.77	53.04	57.24	34.87	2001.6	8	2160	1316
Golaghat	33136.09	33136.09	33136.09	65.43	64.33	39.33	1974.5	8	1941	1671
Karbi Anglong#	5264.08	5264.08	5264.08	5.83	5.13	2.94	1107.5	1	974	558
Dima Hasao	250.47	250.47	250.47	0.02	0.02	0.02	79.85	80	80	
Cachar	21358.76	21358.76	21358.76	25.47	26.4	13.69	1192.4	8	1236	641
Karimganj	8051.22	8051.22	8051.22	4.27	5.39	3.07	53.35	669	381	
Hailakandi	7158.62	7158.62	7158.62	10.74	12.15	5.74	1500.2	9	1697	802
Bongaigaon	960.07	960.07	960.07	1.39	1.62	0.97	1447.8	1	1687	1010
Chirang	30.05	30.05	30.05							
Kamrup(R+M)	872.9	872.9	872.9	0.95	2.82	2.09	1088.3	3	3231	2394
Baksa	2521.95	2521.95	2521.95	2.25	4.04	2.08	892.17	1602	825	

Darrang	1248.99	1248.99	1248.99	2.75	2.58	1.4	2201.7	2065	1121
Udalguri	19382.64	19382.64	19382.64	34.14	37.95	20.73	1761.3	1958	1070
Biswanath	19531.29	19531.29	19531.29	35.52	36.83	20.62	1818.6	1886	1056
Assam	347200.5	347200.5	347200.5	618.2	667.7	392.8	1780.5	1923.1	1131.4
	9	9	9		3	4	3	8	5

#= including West Karbi Anglong.

Sources: Statistical Handbook, Assam-2022

In the above given table-3 which shows area, production and average yield for the year 2020, 2021 and 2022 in the selected districts in Assam. Area under tea cultivation is highest in Tinsukia district by having 57009 hectare (2020, 2021 & 2022) in second and third position occupied by Dibrugrah and Golaghat district by holding 5338 and 33136.09 accordingly. Chirang district is in the lowest position by having 30.05 hectare.

Tinsukia district also leading in production in the selected year 122.11, 138.87 & 81.1 respectively, followed by Dibrugrah having 108.59, 118.33 & 70.16 and sivsagar holding 70.07, 74.25 & 44.78 in the year 2020, 2021 & 2022 accordingly. Dima Haso district is producing the lowest amount of tea as per the available data among the selected districts in the given year. In case of average yield Sivsagar district has highest as per given data 4628.10, 2736.44 and 2958 accordingly. In second and third position following by Morigaon & Darrang in 2020, Kamrup, Goalpara in 2021 and Kmrup, Goalpara and Golaghat district for the year 2022.

SMALL TEA GROWERS: Small tea growers in Assam refer to individuals or small-scale farmers who cultivate and harvest tea on a relatively modest scale, as opposed to large tea estates. Assam is a significant tea producing region in India, known for its black tea. Small tea growers play a crucial role in the Assam tea industry by contributing to the overall tea production. These small-scale tea growers typically have tea gardens ranging from a few acres to several hectares. They grow tea plants, pluck the tea leaves, and often process the leaves into black tea. The tea they produce is an integral part of Assam’s tea output and is often used in blends or sold as specialty teas. The involvement of small tea growers has helped diversify the tea industry in Assam and provides economic opportunities for many local communities. It also contributes to the overall tea culture and tradition in the region.

Table-4: District-wise Small Tea Growers of Assam Registered With Tea Board of India, 2021-22

Plantation District	For the year 2021-22		Up to August 2022	
	No of Small tea Growers	Area in Hectare	No of Small tea Growers	Area in Hectare
Kokrajhar	466	1268.04	466	1268.04
Dhuburi	81	52.66	81	52.66
Goalpara	221	252.95	221	252.95
Morigaon	2	6.45	2	6.45

Nagaon	2190	3330.23	2190	3330.23
Sonitpur	3877	4278	3877	4278
Lakhimpur	3006	2241.76	3006	2241.76
Dhemaji	1669	1738.26	1669	1738.26
Tinsukia	23511	21509	23511	21509
Dibrugarh	26724	19888.92	26724	19888.92
Sivsagar	4952	4428.04	4952	4428.04
Charaideo	10522	10488.54	10522	10488.54
Jorhat	8713	7077	8713	7077
Golaghat	13578	13316.82	13578	13316.82
Karbi Anglong#	2672	3740.77	2672	3740.77
Dima Hasao	4	10.47	4	10.47
Cachar	204	575.56	204	575.56
Karimganj	30	105.05	30	105.05
Hailakandi	9	28.68	9	28.68
Bongaigaon	581	486.5	581	486.5
Chirang	30	30.05	30	30.05
Kamrup(R+M)	2	20	2	20
Baksa	341	465.73	341	465.73
Darrang	32	40.75	32	40.75
Udalguri	7519	8548.74	7519	8548.74
Biswanath	10739	10872.27	10739	10872.27
Assam	121675	114801.24	121675	114801.24

#= including West Karbi Anglong.

Sources: Tea Board of India.

Table-4 shows no. of small tea growers and area registered with Tea Board of India. Dbrugarh district has the highest no of small tea growers (26724) followed by Tinsukia (23511) and Golaghat (13578) districts. In lowest Kamrup and Morigaon district have only 2 registered small tea growers and in 2nd lowest is Dima Hasao by 4 registered no of tea growers in the state.

CONCLUSION:

The study was an attempt to explore the different pieces of Tea cultivation in Assam and relate it with that of India. The studies further analyzes the tea cultivation within Assam and try to figure out the possible elements and trends in growth, production and productivity in terms of area under cultivation, growth rate of tea, share of various districts of Assam in tea cultivation. The study has highlighted various important issues regarding growth and share of Assam Tea which can be useful for enhancing the tea cultivation in Assam at larger scale. Assam is the largest tea producing area in India, making up to more than 50% of all tea production in the country. Assam’s climate is perfect for tea production, and more than 304 thousand hectares of land are covered by tea bushes. But over last few one decade our analysis found a deteriorating trend in growth as well as productivity of tea cultivation in Assam. There

is no continuity and smooth trend in growth and share of Assam tea. Further, within Assam the tea production has now remained confined to few districts whereas the production and productivity of some districts has either remain constant or deteriorated over the years.

Therefore, this study has given an indication to policymakers that serious and effective efforts needs to be initiated to improve and sustain the tea cultivation in Assam to much broader scale. Efforts need to be taken to help the cultivators in terms of price fixation, warehouses and effective market availability.

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