# A Study on the Status of Growth and Development of Tea Industry in Assam

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#### Abstract

The tea industry occupies an important place in Assam and plays a very special role in the state economy in particular and in the national economy in general. Assam has maintained its international reputation and commands significant share in the world tea market. The tea industry in Assam also provides daily employment to more than 6.86 lakh persons in the state which is around 50 percent of the total average daily number of labour employed in the country (Economic Survey, Assam, 2013-2014.) This paper attempts to highlight the recent status of growth and development of tea industry in Assam. For this secondary data are collected from books, national and international journals, newspaper, Statistical Handbook of Assam, Economic Survey of Assam, etc. The finding of the study reveals that area under tea cultivation, tea production and average yield have been increasing in the state and the tea gardens have also been providing good job opportunities to many unemployed workers available in the state since long time. The govt. should come forward and lay much stress for further development of the tea industryfor the benefits of the society and for the state economy as well.

**Keywords:** Tea gardens, area under tea cultivation, average yield, employment, tea production, comparative analysis, etc.

#### I. INTRODUCTION

Assam is known for its tea today. Although it is generally believed that it was the British who introduced tea in Assam, researches on the subject show that tea plants were already there growing wild in Assam and the indigenous inhabitants were in the habits of eating it either food or drink even before the coming of the British. Latter of British forces in India reported in 1815 that the Singphohill tribes of Assam gathered a species of wild tea with oil and garlic, after the Burmese manner and also made a drink from it. However, it was Major Robert Bruce, who came to Assam in 1823 and had informed the Government of the existence of tea plants in Assam. Bruce, who had a flair for Botanical Research went on a trading expedition beyond the eastern frontier of British India and discovered tea plants growing wild in the territory of Singpho Gam. He made a written agreement with that chief for supply of tea and seeds to be ready of him upon the occasion of his next visit.

Next year (1824) his brother C.A Bruce, who came in charge of a gun- boat against the Burmese, had collected the tea plants and seeds according to the agreement. He sent some of these specimens to David Scott, the Agent to the Governor General, North East Frontier, who planted them in his own garden at Guwahati. C.A Bruce planted the rest in his garden at Sadiya in 1825. The first Indian to start planting of Assamese nobleman was an ManiramDuttaBarma, popularly known ManiramDewan. He was a Dewan of Assam Company until resigned in 1841 to start his own tea estate. He had two gardens at Jorhat and near Sonari. But the British hanged him in 1858 for taking part in mutiny in 1857. After ManiramDewan's pioneering efforts, many others mostly Assamese came forward to plant tea.

Of the agriculture-based industries, tea occupies an important place in Assam which is grown both in the Brahmaputtra and Barak plains. Tinsukia, Dibrugarh, Sibsagar, Jorhat, Golaghat, Nagaon and Sonitpur are the districts where tea gardens are mostly found. Assam produces more than 50% of the tea produced in India and about 1/6<sup>th</sup> of the tea produced in the world. Tea industry has contributed substantially to the economy of Assam. Assam mainly exports its tea to Europe and Middle East countries and also to Pakistant, Egypt, Japan and Israel. About 17 percent of the workers of Assam are engaged in the tea industry. Assam tea industry is India's largest tea industry and second largest tea production region in the world after China. There are around 2500 small tea gardens and the total production of tea in Assam in 2009 was 500 million kg compared to the 487million kg produced by the state in 2008. In fact China and Assam are the only two regions in the world with native tea plants. The scientific name for the tea plant is Camellia Sinensis. The Assam variety is known as Assamica.

# A. Review of Literature

Assam is well known for her tea production. In recent time many researchers, institutions, and research centre have carried out many research works upon tea industry of Assam and India and thereby enriched many literatures on it. As Arya (2013) described that the tea industry in Assam is about 180 years old. This industry plays an important role in the state economy as well as in the national economy. The first Indian tea produced in Assam was sent

toUnited Kingdom for public sale in the year 1838. Subsequently tea cultivation was extended to other parts of the country between 50's and 60's of the last century. As of today, Assam tea has retained its international standard and commands significant share in the world market. He also pointed out the tea industry in Assam also gave average daily employment to more than six lakh persons in the state, which was around 50 percent of the total average daily number of labour employed by tea industry in the country.

Sonowal (2014) pointed out that the tea industry of Assam is the predominant industrial sector of the state playing an important role in the economy of Assam. It has been contributing substantially to the state income and to the national exchequer as well, in the shape of foreign exchange earnings through its exports every year. It has been contributing its parts to generate employment for skilled and unskilled workers. The tea industry of Assam has also been empowering women by giving them job opportunities.

Sharma (2013) in his paper pointed out that the state government was thinking of registering the small tea gardens with the labour department and the Tea Board had opened a cell at the Assam Agricultural University to train small tea growers with the aim of improving the quality of Assam. A similar training session for small growers would be started at Tocklai Research Station. Again as he pointed out recently a group of tea makers of small tea growers from Assam visited Kangra Valley of Himachal Pradesh to learn about mechanized of plucking and new methods of pruning tea bushes.

Paramanantham(2006) found in the study that during 2003 the production of tea in India stood at 878.13 M kg as against 838.47 M kg in 2002 indicating thereby an increase of 39.66 M kg during 2003 over 2002. Increase during the year 2003 was attributed towards the improvement in the production in both the North and South India crop to the extent of 16.53 M kg and 23.12M.kg respectively over 2002.

## B. Objectives of the Study

The study is primarily concerned with the tea production, employment generation, comparative analysis and prospects of tea industry of Assam. The objectives of the study are to-

- Determine the growth of no. of tea garden, area under cultivation and tea production in the state:
- Make comparative analysis of tea production and average yield among different districts in the state;
- ➤ Determine the scenario of employment generation in the tea industry in the state;
- > Give an idea about the future prospects of tea industry in the state of Assam.

#### C. Methodology

The study is mainly based upon the secondary data collected from different sources. The secondary data are collected from statistical handbook of Assam. Economic Survey of Assam. Tea Board, Guwahati, Assam, Director of Economics and Statistics, Govt of Assam. Some secondary data are also collected from newspaper, National and international Journals, books etc. Immense care has been taken in collecting the secondary data for the fulfillment of the objectives. To make comparative analysis of tea production and average yield in different districts, only few districts were selected and then necessary data were collected there from. Again to examine the growth of tea production in the state as a whole and compared it with the tea production of India, some necessary data were collected and then tabulated according to the needs of the study.

## II. FINDING AND ANALYSIS

The results obtained in the study are based on the available secondary data collected from different sources.

# A. Tea Profile of India

The total area under tea cultivation in Assam is accounting for more than half of the country's total area under tea. In addition to existing big and large tea gardens owned by reputed both Indian and multinational Companies, the profession of tea plantation in the state has taken up by common man as business at present, especially byunemployed youths. The area under tea and tea production in India is mainly concentrated in the eastern part of India especially in Assam followed by West Bengal. The following table-1 clearly shows how the total area under tea and total tea production are unevenly distributed in India during the period 2012-2013.

Table -1 Area Under Tea Cultivation (end-2013) & Production in 2013-14

State / Districts	Area under tea ( in Th.Hectares)	Production (Million Kgs)	
Assam Valley	270.92	581.03	
Cachar	33.48	48.02	
Total Assam	304.40	629.05	

Darjeeling	17.82	8.91	
Dooars	72.92	177.85	
Terai	49.70	125.34	
Total West Bengal	140.44	312.10	
Other North Indian States(Includes Tripura, Uttarakhand, Bihar, Manipur,Sikkim, Arunachal Pradesh, Himachal Pradesh,Nagaland, Meghalaya, Mizoram and Orissa)	12.29	23.92	
Total North India	457.13	965.07	
Tamil Nadu	69.62	174.71	
Kerala	35.01	63.48	
Karnataka	2.22	5.52	
Total South India	106.85	243.71	
All Total	563.98	1208.78	

Source: Tea Board of India, 2012-2014

Among the tea producer states in India, Assam along contributes 629.05 million kg to the total production of tea in India which was accounted as 1208.78 million kg during the period 2012-2013. The production of tea in West Bengal also accounted as 312.10 million kg out of total production in India. The other North Indian States including Tripura, Uttarakhand, Bihar, Manipur, Sikkim, Arunachal Pradesh, Himachal Pradesh, Nagaland, Meghalaya, Mizoram and Orissa contributed only 965.07 million kg oftea to the total production which is very little as compared to the production of individual state Assam and West Bengal. Again in the south Indian states including Tamil Nadu, Kerala and Karnataka, the total production of tea was found only 243.71 million kg out of total production in India. Thus, Assam and West Bengal states contributed a lot in the economy of India.

The area under tea cultivation was also more in the state of Assam which was 304.40 in thousand hectares area followed by West Bengal with140.44 in thousand hectares area during the period 2012-2013. In the north Indian states like Tripura, Bihar, Manipur, etc.the area under tea cultivation was recorded as 457.13 in thousand hectare area whereas

in the south Indian states the figure was only 106.85 in thousand hectare areas out of total 563.9 in thousand hectares area under tea cultivation in India. One thing is clear from above table that the area under tea and tea production in India are unevenly distributed among the states in the country. Moreover, a large area under tea and tea production in India are concentrated in the Assam and West Bengal States of India. The factors behind the variation of area under tea and tea production among the states in India may be due to differences in fertility of soil and climatic condition of the states. It is general belief of the people that the cultivation of tea is suitable in such area of land where the level of land is up and down and is having enough fertility of soil. For this reason may be tea cultivation is mainly concentrated in the North-Eastern part of India and a very little area in south Indian states.

## B. Comparative Analysis

The development profile of tea industry in terms of number of tea garden, area under tea cultivation, total production and average yield in Assam and India during the last ten years (2001-2012) is given in table-2 below.

Table-2.No of Tea Garden, Area under Tea, Tea Production and Average Yield of Assam and India.

Year No. of tea gardens		Area under tea (in'000 hectare)		Total tea production (in'000 tones)		Average yield (kg/hectare)		
	Assam	India	Assam	India	Assam	India	Assam	India
2001	40795	116659	269	510	153587	853923	1685	1675
2002	43272	127801	271	516	433327	838474	1601	1627
2003	43293	129027	272	520	434759	878129	1601	1690
2004	43293	129027	272	521	435649	892965	1603	1713

2005	49102	140712	301	556	487487	945974	1622	1703
2006	NA	NA	312	567	502041	981805	1610	1732
2007	825	NA	321.3	578	511885	986427	1593	1705
2008	760	385	321.4	560	487497	980818	1517	1750
2009	760	385	321.7	561	499997	978999	1554	1746
2010	760	385	322	561	480286	966403	1492	1724
2011	765	NA	322	560	589110	988323	1830	1764
2012	78856	NA	322	579	590120	1111760	1833	1919

Note: 1. No. of Tea Gardens shown from 2007 to 2011 refers to only tea gardens having area above 10.12 hact and excluding small growers.

2. Area, Production and average yield estimated and subject to revision.

Source: Tea Board of India, 2012-2013.

Table -2 depicts the fact that the no. of tea garden in both Assam and India had been increasing continuously from 2001 to 2005. The no of tea garden including big and small was only 40795 in 2001 which increased to 49102 in 2005 and in India also the figure increased from 116659 in 2001 to 140712 in 2005. But the no of big tea garden excluding small was observed as slightly static for both Assam and India from the year 2007 to 2011. The area under tea in both Assam and India was also increasing but at a very slow growth rate from 2001 to 2005. The total tea production in Assam which was only 153587(in'000 tones) in 2001 increased to 487487(in '000 tones) in 2005 and in India it was increased from 853923(in '000 tones) in 2001 to 945974(in '000 tones) in 2005. But average growth rate for Assam was comparatively higher than that of India. The average yield for both Assam and India was not too much difference and there was a little variation in the average growth rate for both. The

above table-2 also depicts the fact that the average growth rate in connection with no. of tea garden, area under tea, and tea production was not much difference for both Assam and India from the year 2001 to 2005.

In Assam, tea gardens are mostly found in the upper part of the state. As a result, only few districts located in the upper part of the state namely Tinsukia, Dibrugarh, Jorhat, Sivasagar, Nagaonetc were selected for the purpose of comparative analysis in terms of area under tea cultivation, tea production and average yield among the selected districts in the state. The area of tea cultivation, tea production and average yield varied from time to time in the state as there was a variation in the district level as shown in the table-3 below. The area under tea cultivation, tea production and average yield among the districts in the state of Assam shows fluctuation from 2012 to 2013.

Table -3 District Wise Area Productions and Average Yield of Tea in Assam

Districts	Area under tea cultivation			Proc	Production (in'000)		Average yield		
	(Inhect.)						(kg per hectare)		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Darrang	41805	41506	100477	100477	99977	106475	1679	2408.74	2565.29
Goalpara	4451	4384	6267	6267	6217	6621	1700	1418.11	1510.26
Kamrup	3450	3879	4845	4845	4775	5085	1377	1230.99	1310.90
Lakhimpur	6984	7144	10984	10984	10984	11698	2003	1537.51	1637.46
Dibrugarh	122623	121390	250356	250356	250306	266875	2109	2062.00	2198.49
Nagaon	8024	8086	16045	16045	15990	17029	1707	1977.49	2105.99
Sivasagar	94921	93630	140721	140721	140221	149610	1547	1497.61	1597.89
Cachar	34380	35834	50290	50290	52870	56306	1731	1475.41	1571.30
Karbi-									
Anglong	4222	4474	7503	7503	7458	7943	1639	1666.96	1775.37
Dima-Hasao	1350	1883	1622	1622	1322	1408	899	702.07	747.74
Assam	322210	322210	589110	589110	590120	629050	1830	1831.48	1952.30

Source: Tea Board of India, 2012-2013

It is clear from table -3 that the district Dibrugarh occupied first position in terms of area under cultivation (250356 in hectare in 2013), tea production (266875 in tones in 2013) and average yield (2198.49 kg per hectare in 2013)among the selected districts in the state whereas Dima-Hasao district was having the last position. The tea production in the Dibrugarh district gradually increased from 250356 intones in 2011 to 266875 in tones in 2013 along with the growth of area under cultivation from 122623 in hectare in 2011 to 250356 in hectare in 2013. Moreover, the average

Yield in kg per hectare for Dibrugarh district was also more as compare to other districts in the state. The Sivsagar district was in second place in terms of area under tea cultivation and tea production followed by Darrang district in the state. The area of tea cultivation of Sivsagar district increased from 94921in hectares in 2011 to 140721 in hectares in 2013 whereas in Darrang district it increased from 41805 in hectares in 2011 to 100477 in hectares in 2013. But the average yield in kg per hectare in Darrang district was higher than that of Sivsagar district which increased from 1679 kg per hectare in 2011 to 2565.29 kg per hectare in 2013 and in

Sivsagar district the figure increased from 1547 kg per hectare in 2011 to 1597.89 kg per hectare in 2013. In Assam, the area under tea cultivation was same during the year 2011 to 2012 which was only 322210 hectare in areas but suddenly increased to 589110 hectare in 2013. The tea production of Assam also increased from 589110in thousand kg in 2011 to 629050('000kg) in 2013 and the average yield also increased from 183 kg per hectare in 2011 to 1952.30kg per hectare in 2013. Thus, it is clear from the above table that there existed disparity in connection with area under tea cultivation, tea production and average yield among the selected districts in the state during the year 2011to 2013. In Assam, there was also a variation in the fields of area under cultivation, tea production and average yield from 2011 to 2013.

District wise production of green tea leaf under small tea growers in Assam during 2012-2013 is also given below in table-4. Here also Dibrugarh district positioned in the first place in the production of green tea leaf in three different categories of land holding as compare to other districts in the state. In each district the production of green tea leaf was more in the area of land holding above 3 acres in the state.

Table -4 District Wise Production of Green Tea Leaf Under Small Tea Grower in Assam during 2012-2013

District	Production of	Production of	Production of green	Production of green
	green tea leaf	green tea leaf	tea leaf having	tea leaf under small
	having (0-1)are of	having (1-3)are	(above 3) are of land	tea grower
	land holding (kg)	of land holding	holding (kg)	
		(kg)		
Tinsukia	41712665	74172156	88741388	204626209
Dibrugarh	48197038	77424302	89474187	215095527
Sivasagar	20428672	27785996	36235095	84449764
Jorhat	12277287	12083079	8918295	33278661
Golaghat	1949204	26467713	29451487	75411304
Sonitpur	549267	9255606	26329118	36133990
Udalguri	2128018	11175851	26964055	40267924
Darrang	13000	11125	10000	34125
Dhemaji	152024	360360	1927471	2439855
Dhubri	NA	36000	132000	168000
KarbiAnglong	30000	284100	7312656	7626756
Kokrajhar	33600	799000	9702504	10535104
Lakhimpur	202531	1365875	8326103	9894509
Baksa	14400	223440	785920	1023760
Others	678020	3068964	19513643	23260627
Total	145908626	244513567	353823922	744246115

Source: Economic Survey of Assam, 2012-2013

The number .of tea gardens, area under tea and tea production according to two different categories of tea growers namely small and big tea growers in Assam in the years 2012-2013 is shown in table-5 given below.

Table -5 Numbers of Tea Gardens, Area and Production of Tea

Year	Small Growers			Big Growers			Total		
	(Upto 10.12 hect.)			(Above 10.12 hect.)					
	No. of	Area	Production	No. of	Area	Production	No. of	Area	Production
	Gardens	(Ha)	(`000 kg)	Gardens	(Ha)	(`000 kg)	Gardens	(Ha)	(`000 kg)
2007	64597	88674	106881	825	232645	405004	65422	321319	511885
2008	N.A.	88674	N.A.	760	230113	437810	760	321437	487497
2009	-	88674	N.A.	760	230060	451970	760	321687	499997
2010	-	88674	N.A.	760	229790	450100	760	322222	480286
2011	78091	88674	N.A.	760	229140	476767	78856	322210	589110
2112	68459	88674	N.A.	761	233536	590120	69220	322210	590120
2013	68459	88674	N.A.	761	233536	629050	69220	322210	629050

Source: Tea Board of India, Regional Office, Guwahati, Assam 2012-2013

**Note:-**Number of Small tea growers and the district-wise details are not available asthe part of Survey on Small growers by Assam is awaited.Big growers' data is based on the Base Line Survey, 2010.Figure of 2007at Col.3 repeated for the years2008to 2013No. of Tea Gardens shown in col.8 for the years 2008 to 2010 refers to only TeaGardens having area above 10.12 hectors excluding Small Tea Growers.

Table-5 shows the no of gardens, area under cultivation and tea production for both small and big growers. The no. of small tea gardens fluctuated but the area under cultivation shows almost constant over the years. There was also a little variation in the no. of tea garden and the area under tea cultivation but high fluctuation in the tea production for big tea growers over the years.

# C. Employment Generation:

The tea industry of Assam is regarded as one of the most important industry in the economy of Assam. The contribution coming from tea industry in the total state income is very remarkable as compare to others sectors.

Tea gardens in Assam including all have been providing golden job opportunities and other facilities all section of the people since long time. Among the different employers belonging to industry and non-industry, tea gardens/ industry owners have been providing a large no. of employment opportunities to youth unemployed workers of different communities since long time. The status of employment in different tea gardens located in different districts during the year 2012-2013 is given in table-6.

Table -6 District Wise no of Workers under Small Tea Growers in Assam

Districts	No of workers	No of workers	No of workers	No of workers under
	under small tea	under small tea	under small tea	small tea growers
	grower having (0-	grower having (0-	grower having (0-1)	
	1) acre of land	1) acre of land	acre of land holding	
	holding	holding		
Tinsukia	44995	48646	45117	138758
Dibrugarh	61058	59410	40832	161300
Sivasagar	24224	20862	14494	59580
Jorhat	20254	10705	5341	36300
Golaghat	28428	21536	18717	68681
Sonitpur	699	5871	16042	22613
Udalguri	3113	7314	13709	23135
Darrang	20	13	11	44
Dhemaji	310	983	1560	2853
Dhubri	NA	90	216	306
KarbiAnglong	105	480	5136	5721
Kokrajhar	128	811	4709	5648
Lakhimpur	276	1593	3645	5513
Baksa	140	345	864	1349
Others	838	2233	9278	12349
Total	183587	180892	179671	544150

Source: Economic Survey of Assam, 2012-2013

During the year 2012-2013, the total no. of employment given to all section of the people in the state was accounted as 544150 people under small tea growers. Dibrugarh district having the larger no. of tea gardens including big and small than the other districts could also provide larger no. of employment opportunities to unemployed workers of 161300 people in the state in the year 2012-2013. One thing is also clear that tea grower having 0-1 and 1-3 acres of land holding could provide larger job opportunities than that of tea grower having above 3 acre of land holding in all the districts in average. The tea industry of Assam is playing a vital role in the state as well as in the national economy. The Assam's tea industry alsopossesses a significant reputation in the global economy. The total area under tea cultivation is accounting for more than half of the country's total area under tea and the tea industry of Assam provides employment to more than six lakh persons in the state which is around 50 percent of the total average daily number of labour employed in the country.

## III. CONCLUSION

The present study throws light on many aspects of tea industry in Assam. The study clearly reveals that there takes place increasing number of tea gardens and the expansion of tea garden areas at the same time which can be considered as good shine for the state as well as for the country's economy. It is found in the study that there existed disparity in tea production and average yield which might be the result of many seen and unseen factors available in the state. More number of tea gardens and more tea production were concentrated in the Dibrugarh district followed by Sivasagar among the selected districts. One more finding of the study is that the expansion of size of tea gardens and tea factory in the state brings a good job opportunity to youth unemployed people to employ themselves as tea garden labour and non-labour. Thus it is very imperative from the side of the govt. to lay much emphasis upon tea industry as the teaindustry is the leading industry in the state of Assam. The govt. should support both big and small tea garden financially and politically for the greater interest of the society and for the benefits of the state.

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