

Czech University of Life Sciences Prague

Faculty of Economics and Management

Business Administration



Bachelor Thesis

Assessment of Tea production in India

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Thesis title

Assessment of Tea Production of India

Objectives of thesis

The key goals of the thesis is to understand the impact of Tea Production on the economy of India. What is the growth of Indian tea Industry? How Tea Industry contributes to the growth of developing Indian Economy. This thesis provides the background of whole Tea Industry of India and its influence on the Indian economy. Besides this evaluation of the aspects of international tea production, exports, and imports. Also, prediction about how and which trends should be bought up to develop and change the structure of Tea Industry in India.

Methodology

In this study, the secondary data will be obtained from websites such as Scopus, Google Scholar, science direct and other public repositories via online browsing. The research will required to collect secondary data using various online surveys. Secondary qualitative data are typically found in newspapers, websites, magazines, letters and e-mails. This data provides a rich source of information. In known circumstances, qualitative data is usually produced for a given purpose by named people. This makes analysis of data with an understanding of preconditions, gaps, social conditions, and other issues relatively easy.

However more critical analysis may be needed for quantitative data. The collection of data, why certain types of data have been collected while other data has not been collected and whether there has been any preconception in the creation of data-collecting tools. In this research the researcher adopted mixed approach to analyze the secondary data.

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Dhekale BS, Sahu PK, Vishwajith KP, Mishra P, Narsimhaiah L. Application of parametric and nonparametric regression models for area, production, and productivity trends of tea (*Camellia sinensis*) in India. *Indian Journal of Ecology*. 2017;44(2):192-200.

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Declaration

I declare that I have worked on my bachelor thesis titled "Assessment of Tea production in India" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on 3/8/2021

_____Shivani Vaseta_____

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Assessment of Tea Production in India

Abstract

The aim of the thesis is to understand the impact of Tea Production on the economy of India. What is the growth of Indian tea Industry? How Tea Industry contributes to the growth of developing Indian Economy. This thesis provides the background of whole Tea Industry of India and its influence on the Indian economy. Besides this evaluation of the aspects of international tea production, exports, and imports. Also, prediction about how and which trends should be brought up to develop and change the structure of Tea Industry in India.

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Keywords: Tea production, Import and Export, International Trade, India

Hodnocení produkce čaje v Indii

Abstrakt

Cílem práce je pochopit dopad výroby čaje na ekonomiku Indie. Jaký je růst indického čajového průmyslu? Jak čajový průmysl přispívá k růstu rozvíjející se indické ekonomiky. Tato práce poskytuje pozadí celého čajového průmyslu v Indii a jeho vliv na indickou ekonomiku. Kromě tohoto hodnocení aspektů mezinárodní produkce, vývozu a dovozu čaje. Také předpověď o tom, jak a které trendy by měly být vyvolány k rozvoji a změně struktury čajového průmyslu v Indii.

V této studii jsou sekundární data získávána z webů jako Scopus, Google Scholar, science direct a dalších veřejných úložišť prostřednictvím online prohlížení. Výzkum je nutný ke shromažďování sekundárních údajů pomocí různých online průzkumů. Sekundární kvalitativní údaje se obvykle nacházejí v novinách, na webových stránkách, v časopisech, dopisech a e-mailech. Tato data poskytují bohatý zdroj informací. Za známých okolností jsou kvalitativní údaje obvykle vytvářeny pro daný účel jmenovanými lidmi. Díky tomu je analýza dat s porozuměním předpokladů, mezer, sociálních podmínek a dalších problémů relativně snadná.

U kvantitativních údajů je však nutná kritičtější analýza. Shromažďování údajů, proč byly shromážděny určité typy údajů, zatímco jiné údaje nebyly shromážděny a zda při vytváření nástrojů pro shromažďování údajů existovala nějaká představa. V tomto výzkumu přijal výzkumný pracovník smíšený přístup k analýze sekundárních dat.

Klíčová slova: Výroba čaje, Import a Export, Mezinárodní obchod, Indie

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List of Abbreviation

CTC: Crush, Tear, Curl
GDP: Gross domestic product
Rs: Indian rupee
EPI: Environmental Port Index
IGG: The FAO Intergovernmental Group
FY: Financial year
INR: Indian Rupees
CAGR: Compound Annual Growth Rate
WTO: The World Trade Organization
IST: Indian Standard Time
UK: United Kingdom
USA: United States of America
IIM: Indian Institute of Management
STGs: Small Tea Grower
D.C: Deputy Commissioner
NOC: No Objection Certificate
ABITA: Assam Branch Indian Tea Association
BLF: bought leaf factories
SHG: A Self-Help Group
PLA: People's Liberation Army
GAP: Global GAP certification
IPM: Integrated pest management
PPA: power purchase agreement

1. Introduction

The story of tea is interesting, with its proven health benefits, common uses of ritual rituals and an imaginative exemplar process. Starting as a small herb, their aromas and aromas influence the area in which they are cultivated, the amount of sunlight and the attentive eye of an old-fashioned teamaster¹. The story of tea leaves, harvested by hand and skillfully developed in a multi-phase method, has several outcomes which rely on the type of tea that is best. Tea is one of the world's most common beverages. There is a type of tea for all with thousands of various flavors and tastes, varying from cool, natural, and herbal to floral and spicy. Drinking tea is a perfect way to enhance overall wellbeing when drinking tea has a large range of health benefits.

Originally from China, the tea has been used in ancient cultures such as the Romans and Greeks. In the 16th century, Tea went from Asia to the west when Portuguese priests and merchants found it. Tea became common in Great Britain and introduced in social engagements only in the 17th century under British colonial rule.

1.1 Tea plantation process

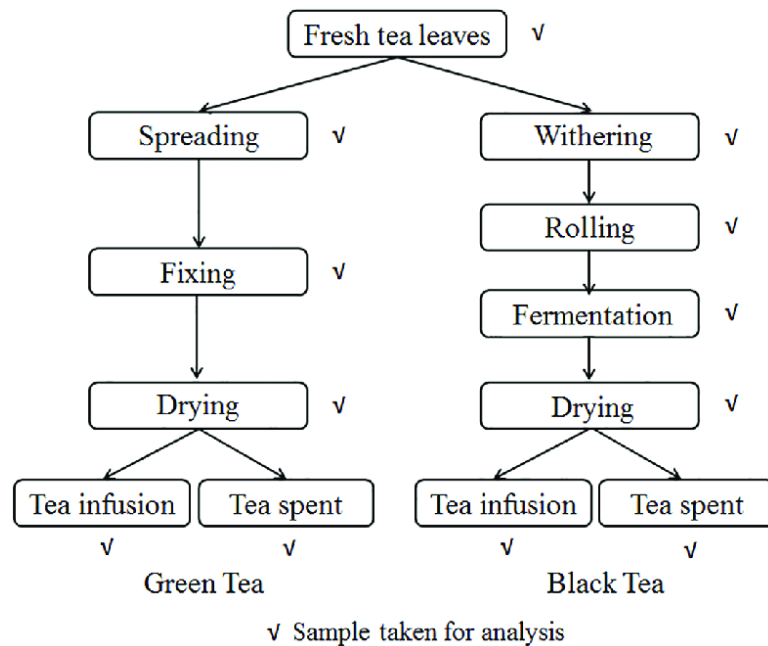


Figure 1 - Tea Plantation Process for Green Tea and Black Tea

The tea plant known as *Camellia sinensis* is used for harvesting teas such as green tea, white tea, oolong tea, black tea and Pu-erh tea. Herbal infusions are created from unopened buds and stalks as a variety of spices and floral pieces. Herbal teas are distinct from natural teas. The cultivation of the tea plant is the first stage of tea production. This plant prefers acidic soil for the best growing conditions and significant rainfall². The tea plant has been cultivated all over the world, cultivated so far north as England and south as New Zealand. The more potent aroma is generally found in tea plants grown at higher altitudes.

In general, Tea plants are graded by size in three distinct classes. Assam leaves are the largest, accompanied by medium-sized Cambodian and smallest Chinese leaves. While it can grow up to 50 feet, the majority of tea plants continue to be kept up to the waist length to facilitate the plucking of the young, fresh leaves. Shorter plants increase the production capacity and produce more shoots and leaves. Tea leaves are collected from the tea plant and taken for production to a local tea factory. During the harvest, just one or two inches of the tea plant are selected from the top. These tea leaves are called flushes and developed in the harvest season, every 7 to 15 days.



Figure 2 - Tea Leaves



Figure 3 - Tea Fields



Figure 4 - Tea Leaves arranged in basket by hand

Tea leaves are normally arranged in wide wicker baskets by hand in tea gardens or tea floors. When a bag is complete, the leaves are tested and weighed to ensure the consistency of the tea-master. Split leaves, as with indicators of exposure to sun or water, are usually discarded. Just

around 25 kilograms sent to the next stage of tea processing for each 100 kilogram of new tea leaves³. The tea leaves are analyzed according to height, form and appearance in the harvest and sorting process. Tea leaves are categorized according to the field in which they have been harvested and the methods of processing in certain countries. Each tea board is examined and sorted in the following groups, white, green, black, Pu-erh and oolong.

The variation in color, aroma and taste emerges from the manner in which they are handled after harvest, as stated; all real teas are extracted from the same leaves. Green and white tea leaves are not oxidized at all; they are dried in the heat, baked, or fried and developed into pellets or twigs. Green tea can also make matcha green tea powder with ground. On the other side, a method of oxidation produces sturdy, deeper teas, such as oolong tea and black Tea. During this phase, the leaves are ground and rolled to encourage oxygen in the enzymes in the leaves. The product of this phase is darker tea and more powerful than fragile teas, including green tea and white tea. There are two methods for oxidation, the most popular orthodox method, and the CTC method.



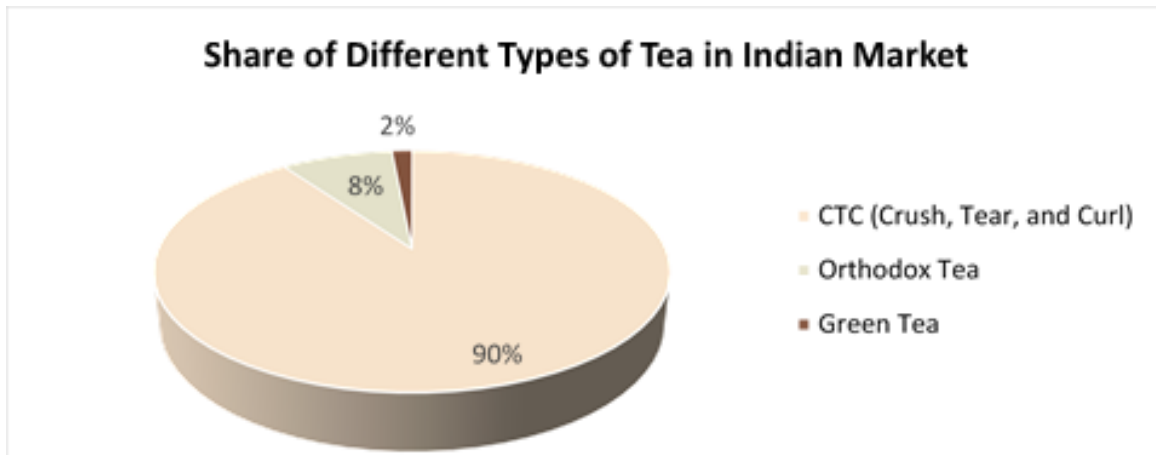
Figure 5 - Cup of Tea

Tea leaves are subjected to a four-step method involving withers, spinning, oxidation, and drying for the orthodox treatment. Each step helps to produce the taste profiles of the darker genuine teas during production⁴. Harvested tea leaves usually have a strong water concentration, around 75%, which for rolling and oxidation is decreased to around 45%. Through laying the leaves on a smooth

mesh surface or a bamboo tray, the water content is eliminated. The floors are exposed to cool air for 8 to 18 hours during the drying process.

The leaves are rolled to promote oxidation once the leaves have been withered. Leaves are laid by hand under traditional production methods, although many companies use rolling machines to speed up the process in modern times. The internal cell structures are broken down, releasing essential oils that react to taste and scent with oxygen as the withered leaves roll. The fermentation process determines the strength and taste of tea. The Chlorophyll breaks down and releases tannins, causing the leaf to become darker. Tea farmers, who maintain a warm humid climate, monitor the oxidation phase.

The green color and vegetal aroma are preserved by non-oxidized teas such as green and white teas. Half-oxidized teas are usually light brown or yellow in color, and give milder tastes, and they are oxidized for just a brief time like oolong tea. Completely oxidized teas like black tea are reddish brown and offer strong, bold flavor. Tea leaves are subjected to drying processes to stop the oxidation process. Tea leaves may be dried by pan-firing, sun drying and baking depending on the tradition and the tea manufacturer's preference⁵. Hot temperatures of over 100 F are used for stopping the oxidation process and reducing the moisture level to just 2-3%.



Source: Tea Board India, Economic Times, LSI Research

Figure 6 - Shares of Different Types of Tea in Indian Market

The CTC processing method is known as the crush-tear-curl process, which creates shredded pellets and pellets of tea. CTC tea leaves are subjected to orthodox teas using the same staining,

oxidizing, and drying methods. During the rolling stage the major difference between orthodox and CTC occurs. Tea leaves are rolled in hundreds or small, sharp teeth in machines during CTC production. These sharp points separate the tea leaves into smaller sections, commonly used in tea bags. A few steps of the production process are eliminated for various teas such as white tea and green tea. White teas are made completely by hand, without equipment and only undergo drying on stage. Those leaves are the least processed of true teas, labeled organic tea and spontaneously roll in the sunshine.

India

As the seventh-largest nation in the world, India is separated by mountains and the seaside from the rest of Asia, which offer it a distinct geographical entity. The snow-covered Himalayan Heights stretch from the tropical forests to the southern rainforests to a surface of 32.87.263 square km. It extends alongside the great Himalayas to the north and down the Cancer Tropic into the Indian Ocean, between the east Bay of Bengal and the West Arab Sea. Different complexities of food, religions, arts, crafts, music, wildlife, lands, tribal sport, and background are welcomed when travelling around the nation. The old and the fresh are all hypocritical in India.

The economy of India will rise by 7.3% in 2021; even as the lockdowns and other attempts to monitor the Covid-19 pandemics slash domestic consumers are provisionally expected to decrease by 9.6% in 2020. In the global economic condition and perspectives for the 2021 edition produced by the Department of Economic and Social Affairs of the United Nations (UN DESA), a catastrophe of the first century, a Great Disorder triggered by the Covid 19 pandemic in 2020, reported to have impacted the global economy. Last year, the world economy shrank 4.3%, 2.5 times worse than the 2009 global financial crisis. In 2021, the small 4.7 percent rebound needed to compensate for declines by 2020 is scarcely possible. The catastrophic socio-economic effects of the Covid-19 pandemic will be felt in the coming years unless wise investments in economic, social and climatic stability ensure the global economy is robust and sustainable, the study states.

India's 2019 economy, which expanded by 4.7%, would contract 9.6% throughout the 2020 calendar year because, amid drastic fiscal and monetary stimuli, the locking down and other restriction measures slowed domestic demand without ending the disease's expansion. India's economic development is estimated at 7.3% in 2021, China's fastest expanding largest economy

with a 7.2% expected growth in 2021, according to the study. It is expected that India's economy will fall by 5.7% by 2020 and will rebound to a 7% growth rate for fiscal year2021, which is slower once again to 5.6 percent by 2022.

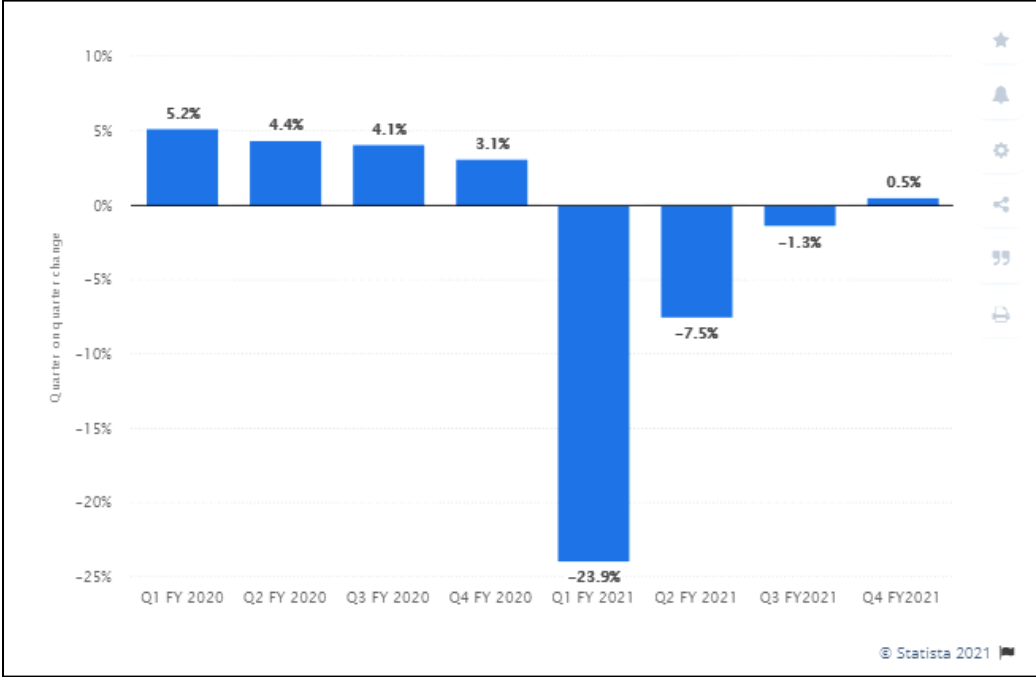


Figure 7 - COVID-19 impact on India's GDP growth in 2020 and 2021

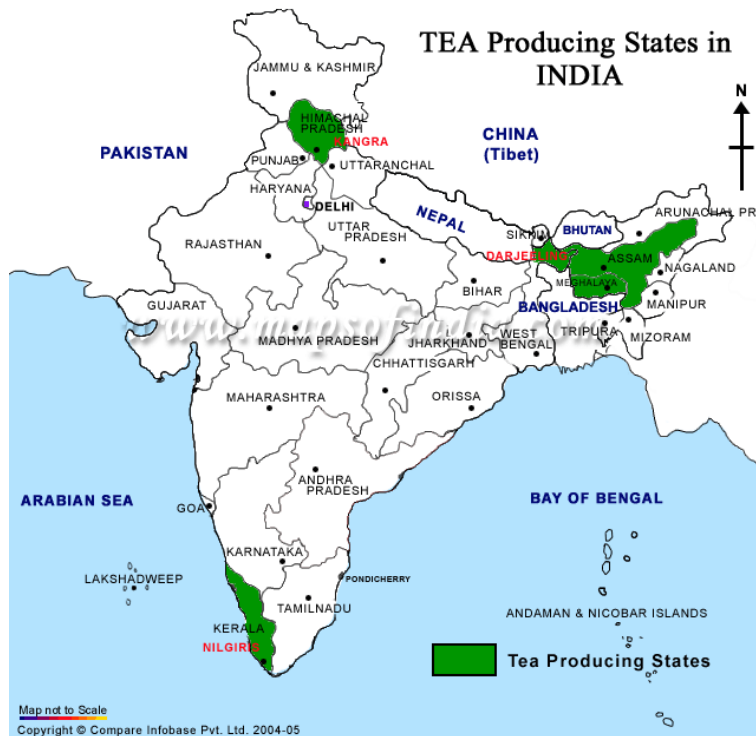


Figure 8 - Tea Producing States in India

India's market is defined as a middle-income developing consumer economy. The population is more than 130 corers, but it is a developing market, it is nevertheless the fifth largest economy in the world in terms of nominal GDP and the third largest in terms of purchasing power parity (PPP).

Effects of COVID 19 on world’s tea production

Covid-19 definitely influenced the sector of over 80 million workers engaged in tea processing. For example, foreign buyers have stopped visiting their origin as countries started to close their borders in March. The exports of tea (and several other commodities) were delayed when air travel was stopped. The tea roots were perhaps most impacted, while certain regions were far more influenced than others. Although the spring yield was significantly decreased because of shortage of labor due to the outbreak, the output in summer and autumn was not greatly affected. However, many farmers are not positive about demand / use and have reduced yield. It is interesting that amid a blocking of foreign trade and wavering logistics in early 2020, Chinese tea exports were only marginally reduced – about 1.65%.

India, by contrast, did not do so either. Nation lockdowns started on 24 March. Though certain constraints became easier in April to produce the first flush and prepare the second flush at Darjeeling, the first flush at Assam was eliminated entirely as a result of the country-wide widespread closures. The second flush was quite high quality but smaller in length. The green leaf price rise for the purchased leaf business has been an unexpectedly optimistic outcome of a shutdown in supply in India. "These farmers were on the verge of failure before 12Rs/kg.

From the second week of March to the end of May in Sri Lanka, the lockout took effect. Tea has been deemed an important service, thereby maintaining production. The main effect came on value added trading, where it was a bit harsh to obtain packaging materials and work constraints. Travelers and foreign staff had the greatest effects on the depletion of hard currencies.

However, export tea still is a concern because customs processing exports are sluggish in several countries because of Covid-19 employee constraints. The demand was slower for certain products worldwide because the market was slowing down and EPI shipments were taking up space. Exports have been disrupted by the disruption of vessel and cargo traffic, while shipping firms have pulled sail plans, shared sailings with other lines and ignored freight contracts.

1.2 Tea production in the world

There are many factors that affect demand for tea, including typical price and income parameters, variables such as age, education, profession and cultural context. In addition, wellbeing has had a significant impact on tea use, which has prompted the IGG to advocate increasing market understanding of the health advantages of tea consumption through a multinational generic marketing program. Finally, apart from demand, patterns and changes in per capita intake, market access, the possible impact of pests and diseases on supply and the evolving dynamics between retailers, wholesalers and multinationals are key drivers of global tea prices.

World tea demand (Black, Green and Instant) rose dramatically by 6% to 5.07 million tonnes in 2013. Black tea production increased by 5.4 per cent in response to increased firm costs, while green tea production increased by 5.1 per cent.

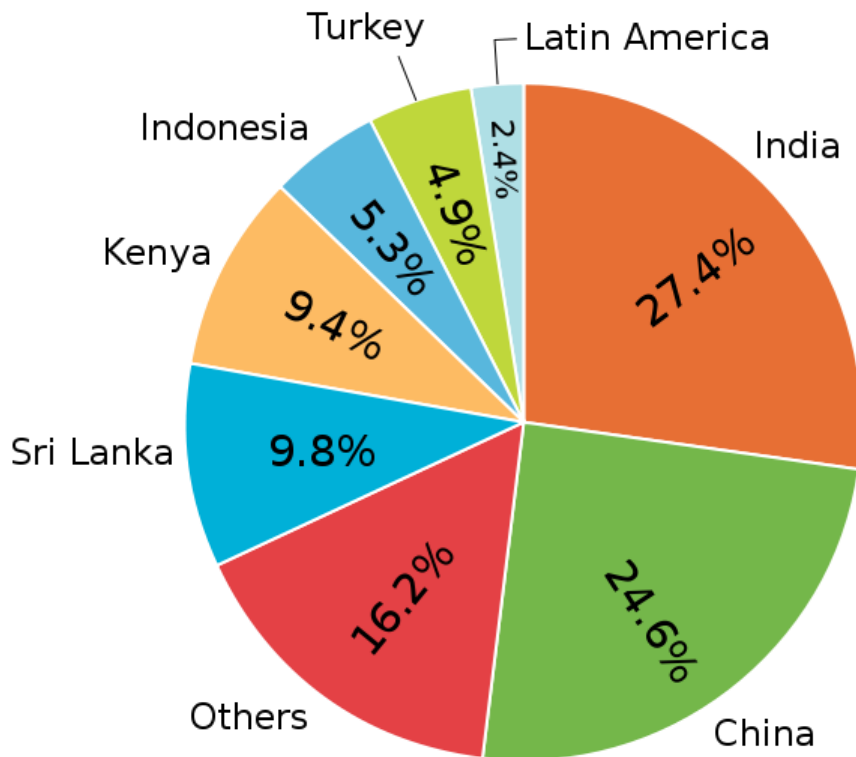


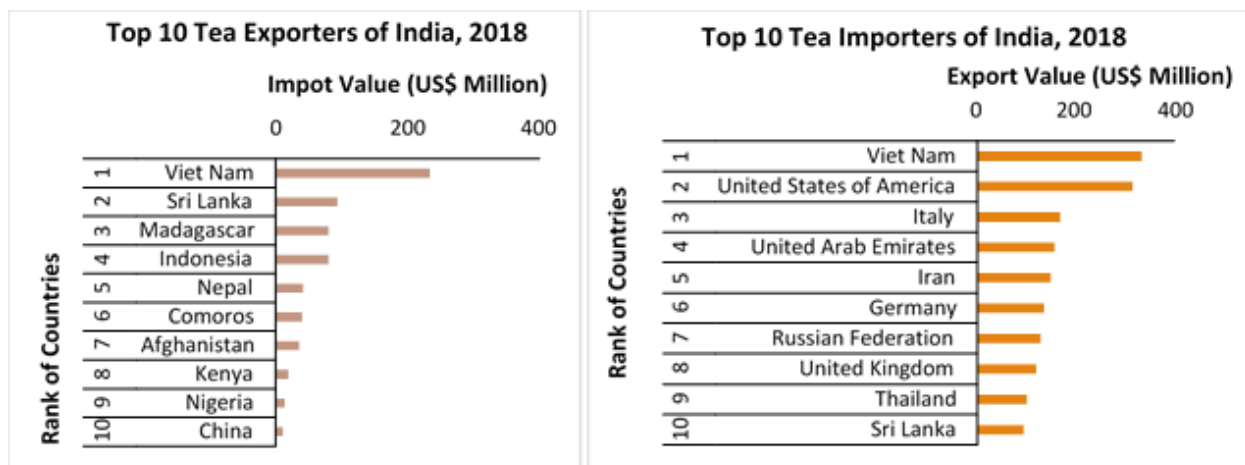
Figure 9 - Tea Production in the world

1.3 Tea trade in India

The gross export of tea in the FY19 amounted to 83090 million US dollars.

In 2019, India produced 133970 million kg tea and was the world's second-largest tea producer. The projected production of tea was 30.54 million kgs in January–February 2020.

In April–August 2020, gross tea exports were 28139 million dollars, with a total of 6944 million dollars for August 2020.



Source: Intracen, LSI Research

Figure 10 - Tea Importer and Exporter of India, 2018

A number of teas, including CTC, orthodox tea, green tea, and organic tea, are available in this region. Unlike several other teas that manufacture and export countries, India has a CTC and orthodox tea manufacturing base as well as green tea⁶.

India offers top-quality teas with distinctive flavor, strength, color, like Darjeeling, Assam Orthodox and the High-Range Nilgiris tea.

The Indian Tea Board was formed pursuant to the Tea Act of 1953, which began in April 1954. It is located in Kolkata and has seventeen offices in India. The Tea Board of India also conducts direct promotional tasks in addition to growth and regulatory duties including the organization of mutual engagement at international fairs and exhibits, buyer seller gatherings, and the sending and hosting of trade delegations. It also carries out numerous activities for business growth, including market surveys, market study, customer experience monitoring and delivery to exporters / importers of relevant knowledge⁷.

- 1.4 Government policies No one will plant tea after the initiation of 1953 Act on tea plantation unless the Board has given permission in writing.
- Applications are made to the tea Board for permits to grow tea on any land not planted with tea on the date of initiation of this Act and include a valid declaration of all the specific circumstances supporting the appeal.

- To process the application, the Board can request a petitioner to include details it finds appropriate.
- The Board may, by regulation, grant or deny the authorization applied for or authorize in the same way only in part or may require more details from the applicant, subject to the conditions and limitations as may be specified⁸.
- Any region on which permission to plant tea is given by this Section is removed from the total area of ground for which the permit referred to in section 12 can be granted when it is calculated for the purposes of section 13.
- The individuals who control the tea company, or, where appropriate, the tea unit, have habitually refused to pay the staff or others' or leases the property, exercise duties or any other duties that they are bound to be charged in compliance with any laws for the term in effect⁸.
- The tea corporation or the tea unit, as the case may be, is handled rather harmfully for the public good or for the tea business.

1.5 The condition of labors in tea gardens

In India there are over a million tea labors, mostly of scheduled castes, tribes and ethnic minorities of who over 50% are women. The industry has seen over the last decade that the value chain tea is being redefined, value added value marketing is being claimed in the dominance of the overall tea production, multinational brands are leading the phase, and small tea-growers emerge from the big planting farm a different production paradigm, leaf factories are growing beyond planting grounds⁹. These causes, along with global demand and supply swings in refined tea, contributed to an unparalleled decline in the Indian market's auction prices starting in 2000. This contributed to a practice generally recognized in India as "abandonment" or "closing" of the tea planting estates.



Figure 11 - Farmers in the Tea Field

Abandonment involves the administration of a tea estate basically quitting the tea estate that ends the estate which includes all the compulsory management functions. The results of the abandonment of estates are fatal and drastic because plantations are self-contained economic and social units. Thousands of workers would unexpectedly get unemployed, power is cut off, water sources halted, plants shut down and schools and hospitals dysfunctional¹⁰. Abandonment is not the closure technically. The property is licensed under the Companies Act, 1956 and is allowed by Industrial Disputes Act, 1947 to meet with the closing process. The consequence is an unconstitutional termination, though. The current scenario is primed for an ongoing humanitarian catastrophe in which thousands of migrants, their children and the elderly are forced to fend for themselves in countries where alternate livelihoods are unavailable.

In 2003 a research report was undertaken at the Education and Communication (ECC) Centre, New Delhi, in collaboration with central unions and other stakeholders, on the closed and abandoned tea gardens in Western Bengal, Tamil Nadu and Kerala. The study highlights and encourages public concern, cruel living standards and hunger deaths in these gardens. From an early observation, 13 closed and deserted Tea Stalls in the district of Jalpaiguri were identified in West Bengal in 2007 and two Tea Gardens were under 'work suspension' in the district of Darjeeling¹¹. Two closed tea gardens at the Nilgiris are situated in Tamil Nadu. There are 14 tea grounds and 11 factories in the Idukki district of Kerala, and 2 tea plantations and 3 abandoned, and 2 tea gardens are shut down and 4 tea gardens abandoned respectively in the Wayanad district.



Figure 12 - Houses of Farmers near Tea Field

Probably the most oppressed in the structured field of the economy was the working class in the Assam tea gardens. Since its emergence at the beginning of the 19th century, low incomes, bad households and outlets of social mobility have become persistent topics. The tea garden job lines have a distinctive identity, although they are neither commercial nor industrial nor agricultural. In each tea garden, just 30-40 percent of the overall tea garden operating is staffed by permanent workers. Each garden hires seasonal workers in the high season in the same pay system, but less than the permanent workers. The tea garden labors still does not have a maternity allowance system. It was reported that women prefer to work hard through pregnancy and post-natal years. In addition to weak socio-economic circumstances, analphabetism, overcrowded and unsanitary life in the home colonies help to deter numerous diseases and starvation of the teagarden communities¹².

Planting is a particular industry and is considered to be a century-old plurality of establishments. Many employees in the plantation industry are unqualified and often do not recognize what is provided for in the Minimum Wage Act of 1948, and the various other labor laws that they follow to defend them. The high analphabetism levels and low sensitivity render them more prone to employers' exploitation. For unpaid jobs workers employed past daily hours, they have to be charged at a double pace, in compliance with the statute.

The working conditions of plantation workers are covered under the Plantation Labor Act of 1951 and by state government laws. The Planting Labor Act mandates the contractor to offer medical, accommodation and schooling services, as well as numerous other social security benefits to employees and their family members. The government reinforces tea gardening schools and demands that tea garden management make additional investments.



Figure 13 – Tea Farmers

A variety of measures are being made to boost the quality of learning and tea garden inscriptions. These require the participation of those schools in the teacher preparation, instructional counseling, and oversight services of the education department. Therefore, a multi-pronged approach is required to provide children with physical access and daily school engagement in tea garden areas. The access and involvement issue is also acuter at the middle school level, and several gardens need to set up middle pieces. These criteria are determined in order to take necessary measures.

2. Objectives and Methodology

2.1 Objectives

The main objectives of the study are to recognise the effect of tea production on the economy of India. What's the progress of the Indian tea industry? How the Tea Industry leads to the development of the Indian economy. This research offers the backdrop to India's tea industry as a whole and its effect on the Indian economy. In addition to this assessment of the aspects of global tea production, imports and exports.

The aim of the research is to understand the impact of tea production on the economy of India.

The research objectives are,

1. What is the growth of Indian tea industry?
2. How is tea production contributing to the growth of Indian economy?

Research Question

1. What are the crucial factors that influence the tea production in India?
2. What is the impact if COVID 19 on the tea production of India?
3. How the tea production scenario changed after the lockdown?

2.2 Methodology

The secondary data were accessed from websites such as Scopus, Google Scholar, science direct and other public repositories via online browsing. The research is required to collect secondary data using various online surveys. Secondary qualitative data are typically found in newspapers, websites, magazines, letters, and emails. This data provides a rich source of information. In known circumstances, qualitative data is usually produced for a given purpose by named people. This makes analysis of data with an understanding of preconditions, gaps, social conditions and other issues relatively easy.

However more critical analysis may be needed for quantitative data. The collection of data, why certain types of data have been collected while other data has not been collected and whether there has been any preconception in the creation of data-collecting tools. In this research the researcher adopted a mixed approach to analyze the secondary data.

3. Literature Review

In the overall tea situating, India has included an amazing position. The nation is the second greatest tea creator on earth. Inquisitively, India is moreover the best buyer of dim tea on the planet, with in excess of 900 million kilograms of tea bought on the local market during the year 2013 and 2014. Subsequently, India is situated fourth with respect to admissions of the tea, which in 2015 and 2016 conceivably outperformed 200 million kg¹³. As of now, appeared differently in relation to a comparative period a year prior, the measure of tea exchanges rose by in excess of twelve percent which is a move to in excess of 28 million kgs during 2017 and 2018, while the pay got from conveys extended by in excess of 95 million dollars that is in excess of thirteen percent of irrefutably the decided segments. Thus, the overall proportion of charges during the years 2017 and 2018 was fixed at over INR 5,000 crore rupees to the extent Indian money. Moreover, subsequently, in FY18, the Indian tea industry recorded the most vital creation and tolls ever. The yearly tea creation was in excess of thirteen hundred million kgs, which stays as an improvement of in excess of seventy million kgs differentiated and the 2016 and 2017's creation and toll¹⁴. Therefore, in percentage terms, the growth is about six percent. Now, the shift towards a new export peak in which is during the year 2017 was evident as the total export quantity stood at over two hundred million kgs, which again stands as an improvement of about thirty million kgs that is over thirteen percent over the year 2016, and with a volume realization of over seven hundred million US dollars, which is an increased segment of over hundred million US dollars thus, giving a rise of over fifteen percent. Therefore, tea is manufactured in more than thirty-five nations worldwide. However, according to the provided data, about ninety percent of the overall world tea production was contributed by just the top seven nations, including India. In 1838, a British national, Robert Bruce, brought tea to India. Thus, all thanks to solid regional metrics, heavy advancements in tea processing units, constant creativity, expanded product mix and strategic business growth, Indian tea is among the finest in the country. Now, in Northeast India including Assam and North Bengal, the main or rather the most important tea-growing areas are the Darjeeling district and the Dooars region where both these stations are very famous for their tourist attracting views where the tea gardens are one among the main tourist attraction points other than the refreshing snow and cold. As of now, In the Nilgiris which is the in southern India, tea is moreover evolved on a wide scale. In the overall tea list, India has kept a shocking position. India is situated fourth to the extent tea conveys, which during the year 2015 and 2016 has beaded the

count in excess of 200million kgs. As such, in the year 2015and 2016, the tea creation showed up at twelve-hundred million kgs. As such, the Northern India produces around a thousand million kgs, where regardless of what may be normal, the South India makes just around 200 million kgs of tea. As of now, the Russian Federation makes more than 45 million kilograms, Iran more than twenty million kilograms and Pakistan were the top insistence grandstands furthermore as premium for the year 2015 and 2016, more than nineteen million kgs¹⁵. As necessities be, the Russian Federation packs around hundred million US dollars, where Iran sacks more than 85 million US dollars and the United Kingdom sacks some spot essentially 85 million US dollars which are watched out for the best admissions to the degree creation that is around sixty million US dollars. Subsequently, India makes a wide level of tea, paying little mind to the way that CTC addresses around 89 percent of the stock; the additional eleven percent is impossible/green and second tea. As needs be, the appraisal was turned over for thirteen years of period and depended essentially upon optional information from the broadly comprehensive lengths of 2003 and 2004 to the years 2015 and 2016. As of now, the information that was amassed from various agrarian sources on different points of view, for example, the creation, import and part of tea. A near report was performed and the gather yearly improvement rate and CV were made due to with tea charges and imports. As of now, an investigation of the diagram gives a wide summation of the general tea market, a zeroing in on area division, fundamental advancement plans, squares, openings and hindrances, key geographical divisions, and the situation of the business. As indicated by the examination check, the overall tea industry was worth in excess of 25 billion rupees in the year 2013 and is depended upon to get over the three thousand billion rupees before the year's more than 2020. By and by, around two percent CAGR is projected to be seen by the zone around the year 2014 and 2020. Subsequently, a blueprint of the current situation of Indian tea with respect to supply, charges and imports reveals that there are market assortments inciting rehashing worth, import and passage instabilities. Farm crops structure the base of the zone's economy. But Indian tea conveys are growing, it is seen that tea exchanges are dropping from 43 percent for the year 2006 that is to around 34 percent that is to the year 2015 of their hard and fast creation, looking at the overall circumstance¹⁶. To ask farmers to create tea, increase work in like manner ought to be done, as it is furthermore essential to apply strategies to remain mindful of the trial of overall premium for tea in the coming years. Likewise, as a mass director, the Indian tea industry has had a great time the Indian government's center interest. The public authority was smart to the

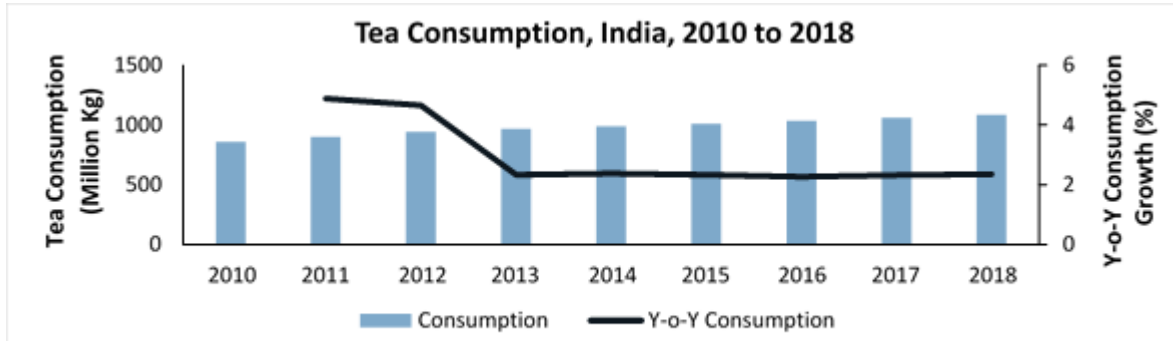
territory's supported position and its makers as area deals demolished. It has gotten issues with incite the area locally and has generally fight enough worldwide with relationship, for example, the WTO or rather the world tea affiliation. After a short time, the tea gardens in Assam don't follow the Indian Regular Time, which is generally called the IST, which is the time in India and Sri Lanka that is noticed. The near time, known as Tea Garden Time or which is nonchalantly known as Bagantime, is an hour going before the IST in Assam's tea gardens. With the early first light in this piece of the world as a fundamental need during the British days, the diagram was gotten. As necessities be, the viewpoint has if all else fails finished in developing the advantage of tea garden laborers by completing the work during the daytime and a contrary course around, while genuinely focusing on light. For tea staff, working time in the nurseries is generally around 9 a.m. which is as appeared by IST at 8 a.m. which is going before 5 p.m.¹⁷. It will everything considered be truly stand-secluded in each utilitarian sense, indistinct from nursery to make which is again IST 4 p.m.

North Bengal is very much economically forward for the production of tea also in the Assam region and the Darjeeling region beside many other viable crops that are of economic importance for the country. Assam revenue department games most of the revenue from these tea plantations. On the whole the tea production has a much greater land use pattern and problems related to it are also disadvantages and these limitations have disturbed the surplus load of the growing tea cultivation. Moreover, due to the marketing policy and the future exchange concept of the tea plantations small tea growers find it more easy and efficient to trade tea for a good marketing price and for matter that they earn somewhat more than what they used to on when in coordination with other concepts and marketing policies.

3.1 Demand for tea

The demand for tea can be easily identified when these statistics are looked into which clearly indicates that in the year 2004 to 2005 the world altogether imported Tea from India the highest which is nearly 33 million kgs. It is true that there are cross demand strategies according to economics that with the rise of the price in coffee, tea gets its demand lowered. Yet we find that globally the amount of tea that is exported from India is kind of 89% of the production. This is just because all types and varieties of tea leaves are grown in India especially in the regions of Assam

and the north Bengal including Darjeeling and Dooars. Moreover, the present statistics says that in the year 2015 to 16 there has been an export of 18.43 million kgs of the spread out globally¹⁷.



Source: Indian Tea Association, LSI Research

Figure 14 - Tea consumption in India from 2010 to 2018

There are definite fluctuations in the production and also in the prices both for the import purposes and export purposes and that determines the price that is being paid as wages to the laborers working in this tea cultivations and plantations. But even then, this extensive work of growing tea has been encouraged by the application of a multiple number of strategies so that India can easily catch up to any challenge that the global market poses for the export of tea in India in the recent years that are yet to come.

3.2 Tea export and import study

Indian tea exports value in 2019

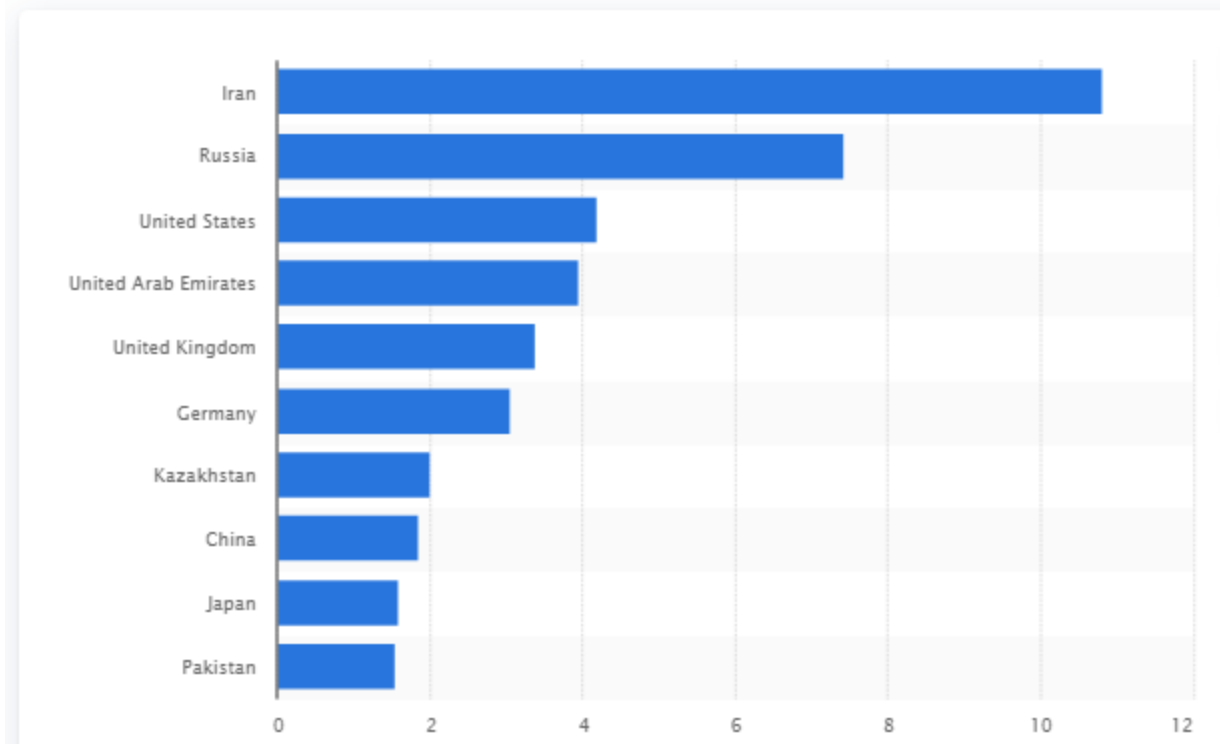


Figure 15 - Indian Tea exports Value,2019

According to the different kinds of t that is imported and exported mostly with a total value identity for the year 2008 refers to 4981920 thousand rupees. The practicality of this is that the tea is generally classified as packet tea, tea bags and instant tea. Statistics says that the average consumption of tea on a domestic level is increasing. And therefore, with the average price of the in which it is available in the open market there definitely exists a correlation between the tea and the coffee which are the major two kinds of beverages consumed in India. It is to be noted that the trend of the export of tea two different countries from India globally is an increasing curve because significantly it is true that India cultivates better quality than any other country based on its climatic conditions and its irrigation procedure along with the land surface where it is cultivated¹⁸. Therefore, to be true, India and China are the major tea producers globally still on an average export from India has increased the lot mostly then on instant ones because there is also a conflict between the non-instant and the instant tea that is getting exported from India and it differs year to year according to the average consumption level.

3.3 Revenue earned from tea

The revenue earned from the tea production is comparatively very high and supports the total revenue on by the Indian government, but it is also a matter of fact that the government needs to regulate the tea prices of various kinds because as it is noticed every you are the export of the value added it is decreasing but on the other hand there is a gradual increase in the value of the tea because overall the price of the day is increasing on huge grounds. Before the production needs to be increased decreasing the grazing lands in those areas where the climate is suitable enough for the tea production and there should exist a very high correlation which is positive between all kinds of tea including the instant and then on instant tea¹⁹. There are also tea cultivation practiced in the Southern part of the country and this cultivation and manufacturing of tea leads to different kinds of cultivation due to the temperature and climate and so a revenue growth of tea export has been observed.

3.4 International aspects

There is a rising conflict between some of the countries that produces tea and has property in the space because keeping aside the production of tea and exporting it India also imports huge amounts of black tea and is over all the largest consumers. Moreover, there are liberations and efficiencies that are state regarding this cultivation and industry because of some of the crisis that the tree industry is facing and has caused a huge damage to its reputation in the international market that extensively grows to be of high-cost tea but very poor in quality. there was being a rising competition that is based on a domestic level as well as in the international level of marketing strategies and marketing schemes of the tea industry in India which depended on the crisis because by 2010, we can easily notice that India's tea production has lost its position major national front as well as in the domestic level²⁰. This is because of the varied production and the increasing cost of tea in various forms for domestic consumption as well as for export.

3.5 Production costs and other factors

As it comes with it most of the cost of production that is required for tea production is mainly the establishment cost because it is all over the 50% of the total cost ignoring the labor wages and the other variable costs of the fertilizers. Therefore, there is a chance of the maximum profit gain by spending the least amount of money because the trees generally survive for years and they give the same amount of good and quality leaves every year during the time of plucking. Once the tree

is properly planted with the assistance of the growers and the fertilizers and machinery required for its proper growth, tea trees do not really require to be given the exact same amount of attention or production costs every other year.

Summing up there are statistics and imperial studies made on the economic development and the quality of the tea based on its leaves and its way of packaging into different kinds but overall, all these related to very practical issues of revenue earning of the government as well as the state in which it is cultivated, processed, packaged, and marketed for domestic purposes and for exports. So it is not very difficult to understand the present government situations and the climatic situations that have led to the decreasing amount of tea consumption in India as well as all over the world in the international front²¹. But still the government acts with various schemes and policies that are capable of increasing the demand in the brokerage market on a global platform for tea imported from Assam, Himachal Pradesh, Southern India and even North Bengal. Among the largest producers of tea, India still stands with high and strong grounds in international as well as the domestic market.

Tea is one of the very common beverages consumed by almost more than half of the people of the world. The reason behind its huge demand in the market is basically because of its richness in flavour and also medicinal qualities. In fact, it is also available in a very cheap rate so that the number of consumers can vary from all sorts of economic conditions. *Cameliasinensis* is a plant which is used to produce the main raw material for this beverage. The baby leaves and the bud is extracted from each plant. Then they are dried and processed to make tea. There are several processes in which this process of tea cultivation is usually done. The business of tea cultivation is known to be one of the biggest industries in the world. Several countries grow different types of tea beverages with different flavours in them²². That is why it is known as the golden beverage for the beverage industry. The *Cameliasinensis* is one of the most important plants and was first found to be grown in China. This means that the tea is a beverage from the Chinese origination. Now, the tea cultivation is done in the hilly areas of several countries like India, Indonesia, parts of Sri Lanka other than China. Myanmar and Thailand have also become a very strong contender in the tea cultivation industry. Chinese tea, Assamese tea and Cambodian tea are the best quality tea varieties available in the world. Other than that, another Indian variant called the Darjeeling tea has also become an excessively popular brand in several parts of the world. Each tea variant has a different color, difference in the shape of the leaves and different flavors and textures of the

beverage. Each beverage also has different aromas with which several essences are produced. Out of all these different types of tea leaves, the Chinese tea leaves are the most authentic ones and have taken over the top place in the market for a long time. One of the reasons are that they are of a highly premium quality tea leaves²³. These Chinese *Cameliasinensis* are usually a strong tree due to which their leaves are obtained as better versions of themselves. Tea leaves have such a strong life that they can be stored for more than a century and still give the best of flavors and taste. The Darjeeling tea flavors have brought a slight change in the conventional type of taste in this beverage. The industrialists thought that it might not be accepted by the mass. But people proved this fact to be absolutely wrong and now the Darjeeling tea has reached to a totally different height. Even the Sri Lankan tea cultivators are trying to acquire some of the basic techniques of these Indian cultivators. They sometimes also grow tea of the premium flavours from the old plants and their parts to get more amounts of tea leaves of the same quality in more and more amount. Another well-known tea leaf cultivator is from Assam in India. No doubt they produce the best quality tea leaves in the whole Indian subcontinental region. They are also tall and strong plants due to which the leaves and the buds are also flavorful and aromatic. A normal quality tea from Assam can be stored for almost forty to forty-five years in the best quality. The Assamese tea producers were the first to cultivate tea of different colors and flavour. There are dark coloured tea leaves as well as light coloured tea leaves grown in Assam. Each of them has a different taste, aroma and quality²⁴. The North Eastern states of India like Manipur also produce tea leaves of their own type as they are situated very near to the Indonesian tea cultivating regions. The Manipuri tea leaves are also of a different kind than the Chinese and the Assamese type. So, it can be said that all the Asian countries have been producing different types of tea leaves with different colors and textures and also various flavors. Among them, India produces the more number of tea flavors. The Assamese tea are known as the golden tip beverage as their buds and leaves have a golden scholar while they are being plucked in their early stages. The type of the tea quality depends on the type of bud of the leaves that is being plucked. In the early stages, they are plucked as these leaves only give a good quality tea beverage. The tea leaves grown in Cambodia are the ones which are hybrids of several Chinese and Indian types of tea leaves from which the third type has been cultivated. So they are not as long lasting as the rest two for later use. They sometimes try to make a separate tea variant by cross breeding any two types of tea leaves. This gives a third kind of a tea product which is totally different from the rest two in terms of the quality, taste, flavour and aroma. They are

grown on very high trees which give it a totally new and safe growth process. Cambodian tea is the third largest producer and importer of the world. Some of the very important processes of Cambodian tea production make it high in demand.

The procedure of producing tea is not as easy as it is thought of. It is usually differently done in different countries depending on the climate of the area of production and also the availability of the different raw factors required for their growth like availability of sunlight, precipitation conditions and so on²⁵. When the tea leaves become just about 25 cm to 50 cm they become totally prepared to be plucked and processed for further use to make the tea beverage. This size totally depends on the type of leaf growing in that area and subsequently the type of tea is obtained. The Chinese tea leaves are usually the smallest in size and the ones which are grown in the Eastern Chinese region like Lushai has the biggest leaf sizes. The tea pluckers usually pick up two leaves along with the bud of the tea plant. Each node of the tea plant has several such buds and leaves. Each tea plant usually contains 200 grams of tea leaves which can be plucked and made tea out of it. But on the other hand, the Assamese tea plants contain more amounts of tea leaves that can be used to make the beverage. Tea leaves are usually very light and simple in their texture. That is why the baby plants are used to make the tea beverage. They are dried to make them strong that is either they are processed to make tea powder or the tea which is of a smaller grain. Then they are finally processed to make the sealed pack of consumable tea packages. This stiffness helps it to stay good for a long time. Also, the wilted tea leaves are not preferably plucked up in the early stages as they may lack flavour and cannot be stored for a long time. Different tea leaves also vary from each other. Not only their texture, size matter, their color also plays a very important role in their future fate. This is a very common factor in the tea leaves from different county; even they may vary in plants. Also, the time for plucking of the tea leaves vary among plants of different countries. Tea plantation and cultivation have become a huge business nowadays. Almost more than half of the people in this world are regular consumers of tea. For the cultivation of tea, climate plays the most important role. If the climate of a particular area is suitable for the cultivation of a particular tea, the next factor that the agriculturists should check is the acidity of the soil. The soil should have a particular pH to make it absolutely suitable to grow the tea of a certain type²⁶. The minimum rainfall that is required for any tea plant to grow is almost 130 mm and also it should be able to wet every plant in the field, of course by avoiding destruction. Tea plantation always requires low temperature for tea to grow properly. That is why tea is usually seen being cultivated

in the hilly areas. Another very important factor that should be taken care of is the sufficient availability of workers in the field. The task of plucking the correct tea leaf happens totally on the knowledge of the worker. Also, more workers will be able to complete the work faster. Slowly as the temperature falls, the plucking of the tea should be started. The tea beverage plays a very important role as a medicinal beverage. That is why people try to consume it more to cure several simple illnesses like foreheads pains, lack of concentration, high sleepiness etc. This helps in giving a better growth to the tea plants. As tea is grown everywhere in such a large amount, a huge number of manpower is required to complete this task of plucking the tea leaves. Some of the tea companies who have taken over fields can recruit a lot of people for the time of the plucking. Other than them, in the village tea cultivation, the owners of the lands indulge their family members to do the plucking of the tea leaves. They should be trained enough to pluck the correct type of tea leaves from the plants. Several machines had been designed since last several years to replace the people plucking tea leaves but all of them have majorly failed. That is mainly because of the quality checking. The machines are not able to identify the correct type of tea leaf and then pluck several unwanted leaves totally. Another very important factor of the tea cultivation is to keep it safe from the harmful pests. If any of the plants are affected by a pest or a disease, the tree will not be able to recover itself and will spread it among all their other growths²⁷. That is why proper pest control is required to save them and to be able to store them for as long as 100 years at least. Tea cultivation is one of the most important cultivation techniques in the agricultural subjects. If the tea leaves that are plucked not of the right type and size, it may get discarded in the final checking time. That is why tea cultivation is one of the most difficult production techniques.

4. Practical Part

Secondary data analyzes the research data gathered by someone else. Secondary analytic is an experiment that incorporates the same fundamental rules of analysis using primary data and takes measures as other forms of research. Although secondary data analysis is a versatile methodology which can be used in several respects, it is still an observational exercise, as are the primary data collection and assessment measures. In several areas, secondary data processing appears to be an underused testing technology. Given that the data previously collected has become progressively accessible to researchers, it is important that secondary data analysis should be established further as a structural method of research. Secondary data analysis is a systemic approach of systematic and evaluative measures. However, literature is insufficient for identifying a particular procedure²⁸. Thus, this document suggests a process starting with research questions creation, then data set recognition and comprehensive dataset assessment.

Most research starts with a survey to discover what is understood and what needs to be studied on a subject, including literature information and relevant content, but previously collected data on the topic should also be taken into account. Data which can be used to cope with research problems could already be usable. The previous and the present work of specialists in the field of school libraries and technology was discussed in detail in the framework of this research. Other scholars on this issue were established via the literature review and similar studies were carried out by agencies and research centers. Latest analysis and tea development results have been identified and analyzed. Finally, local networks may often provide useful information about what research is being carried out.

Primary data analysis never utilizes all gathered data because these unused data offer responses and insights to other concerns or problems, but a fair compromise between the topic and the collection is necessary for successfully utilizing current survey data to find meaningful answers. The research questions in this report match well with the original research, since both studies concentrated on tea development. The researcher was conscious of the fact that data from the issues of enforcement and obstacles to technology adoption in tea production were not evaluated and recorded in the previous research.

If a data set is identified that seems feasible in meeting the first criteria mentioned above, the next step is to test the data set to ensure that the research subject is sufficient. The drawback is that the details already exist and can be assessed in preparation for correct usage and accuracy. In order to

conclude this assessment, the researcher had access to the compilation of the results, the details contained in the publication. Often it is necessary to know the agency(s) which has gathered the information and the analysts who contemplate secondary research, and their similarities or discrepancies in the research objectives²⁹. The researchers had a professional partnership with the researchers performing the initial analysis and were privileged to provide information regarding the data collection phase through the maintenance of touch. The overarching purpose of research to enhance the schooling of prospective school students relates to the intention of the secondary student. However, secondary data processing in this situation enables the researcher to examine the initial dataset in order to address a different query.

The researcher initially selected 256 articles according to the research topic. Out of them 115 articles were selected as they contain the chosen keywords. Finally, 48 articles which are published after 2016 were selected to collect secondary data crucial for the research.

5. Results and Discussion

The following information about the tea production is gathered from the secondary data collected by the researcher.

5.1 Tea production in India

Tea is among the popular drinks in the world. It is recognized as the soda queen and is a perennial evergreen herb. Tea is planted all over the world and occupies an area of more than 2.5 million ha in more than 32 countries. India was 12.9% (203.86 million kg) out of the overall exportation of 1578.56 million kg in 2017. Assam is the main quality tea producer in India and accounts for approximately 51.90% of the overall tea output of the world. Assam alone accounted for 282,10 thousand ha of area and 657.24 million kilograms of output in 2017, accounting for 58,72 percent and 56,11 percent respectively of area and production, out of a combined area of 480,200 thousand ha with 983 million kilograms of production³⁰.



Source: Tea Board India, LSI Research

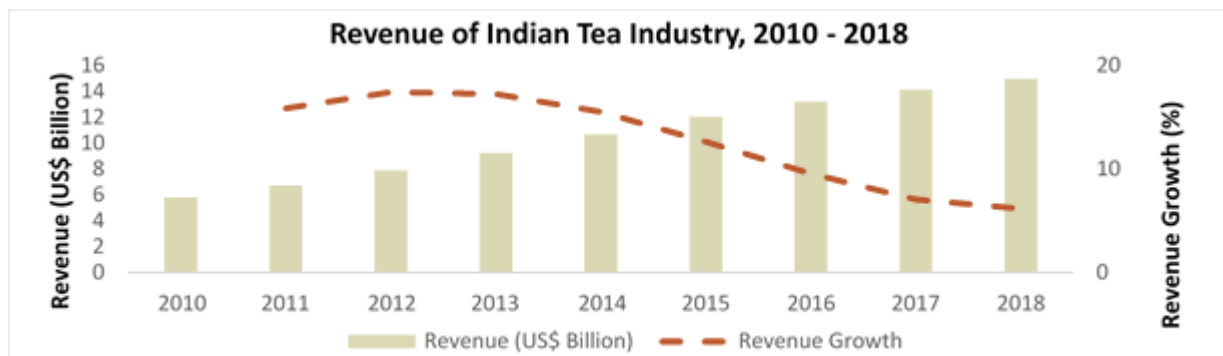
Figure 16 - Global Tea Production from 2014 to 2018

The tea industry is a major foreign currency generator and provides the state and central exchanges with significant revenue. India produces about 180 million kilograms of tea annually. The Indian Tea Industry has a gross net trade of about 1847 crore. The expense of tea leaf production and the supply chain factors were considered for this economic analysis.

5.1.1 Cost of cultivating

An effort was made to measure the costs of developing a tea farm. The research showed that Rs 166968.14, Rs 213965.24 and Rs 223473.87 were observed for small, medium-size and bigger tea growers respectively, per hectare. The expense of planting products or cuttings from a number of cost objects (Rs. 77741.00 per hectare) was the first and added 38.58 percent of the overall cost of the establishment. The employed human labor which amounted to Rs. 30,696.68 per hectare was also paid with a share of the overall cost of the establishment at 15.23%³¹.

Another significant cost item, fourth, was the cost of pesticides, which represented 13 % of the overall cost of a facility. Samples of tea grower are required to expend significant quantities of insecticide on the production of safe Tea plantations, comprising 4.48% of the overall costs of the establishment. Other less significant products of expense of overall establishment were organic mulch in the shape of water jacinth, shade plants, compost, fungicides, etc.



Source: Statista, LSI Research

Figure 17 - Revenue of Indian Tea Industry, 2010 - 2018

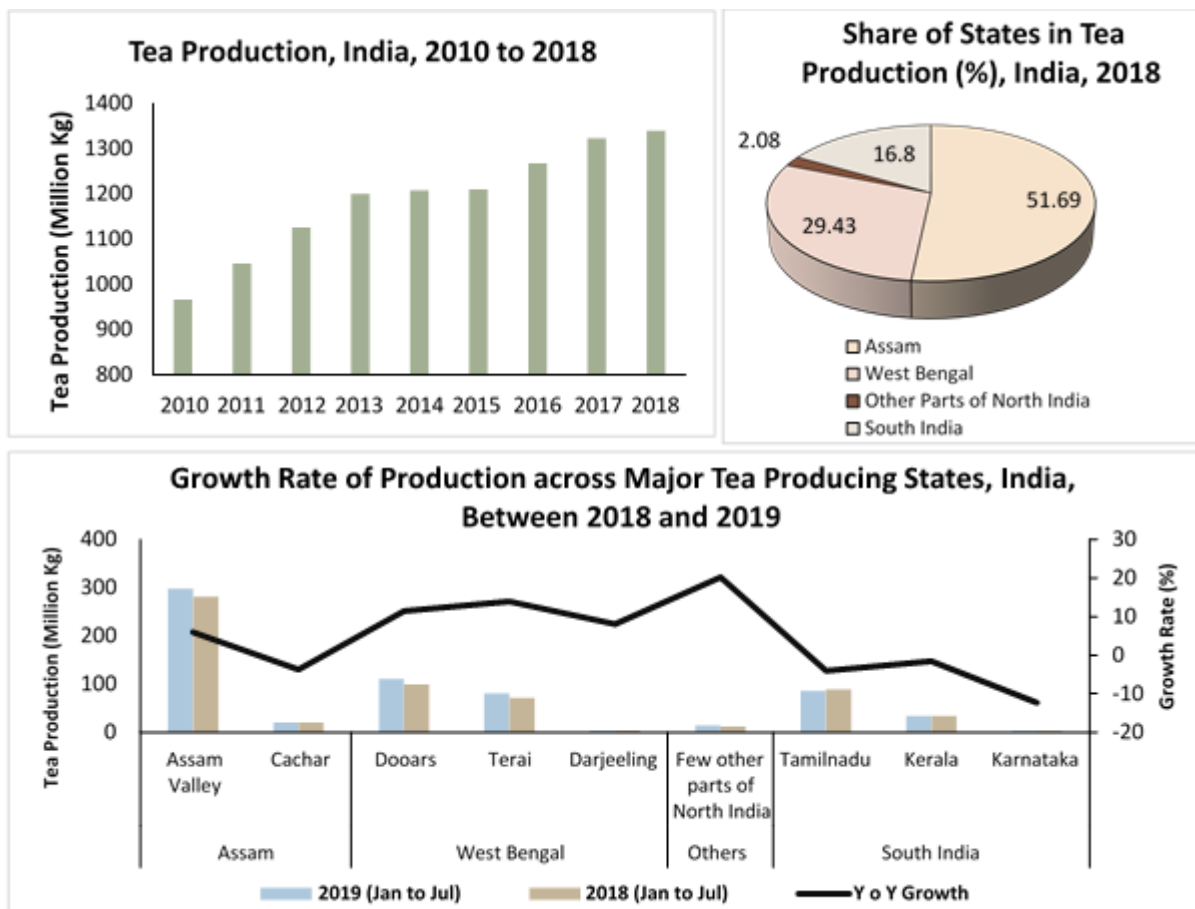
The net expense of operating a small tea plantation ranging from one hectare to another was Rs. 138551.14. Accordingly, Rs. 79823.95 was paid for employed human labor. The overall contingent expense corresponds to over 50% (57.61 per cent) of employed human workers alone. The most significant variable cost item has been established. It cost Rs. 14773.13 per hectare to supply fertilizers and was similar to charges for human labor working. The gross variable expense was 10.66 percent³². The interest in operating costs was accompanied closely by an average 7% of the variable expense at Rs 10,854.24 per hectare. The expense of pesticide was in order of value in third place. It was Rs 11,861.51 per hectare and its share of the overall variable cost amounted to 8%. The cost of insecticide, cost of fungicide, and cost of dung have not been very significant in variable costs.

A tea plantation was maintained at Rs. 7054.74 per hectare in overall fixed expense. Structural costs constituted more than half of the overall fixed costs per hectare alone, i.e., 4029,38 (57.12%). It was the largest fixed cost. The equipment and equipment depreciation were calculated at Rs 2289.40 per hectare and was next to set-up costs. The gross fixed expense contributed to 32.45%. Fixed capital interest contributed to a large 9.90% share of separate fixed cost products³³. The profits of land are then measured at Rs. 36.84 per hectare, reflecting 0.52% of overall fixed costs. The analysis of the supply chain in the tea industry shows that there has been the largest added value in industry where the increased value cost is Rs. 129,18 per kilogram, led by wholesalers, dealers (Rs. 35,92 per Kg) and the collector of green leaves (Rs. 17,80 per Kg) (Rs. 3.20 per kilogram). The explanations why the industry attached the highest value is because power, firewood, machine repair, servicing of generators and lorry, taxation, salaries, packaging, brokering, loading and unloading, storage and agent commission were to be carried by the producers. Processors were required to purchase 4.00 kg of green tea leaves for 1 kilograms of tea. This culminated in very high expense for the processing machine. The research also showed that small tea farmers and collectors of green leaves had net profits of Rs. 2.63, Rs. 1.86 per kilogram of green leaves respectively and Rs. 20.00, Rs. 2.50 and Rs. 4.00 per kilogram of tea made for producers, wholesalers and retailers³⁴.

The previous research demonstrates that tea growing is labor-intensive activity and that, while adding over 50% to overall establishment costs, it shows that the expense of fertilizer is significant as we concentrate on variable costs. The research of the supply chain reveals that the price of producers in the market rupy is so much smaller, and the processor is the maximum benefit recipient. The policies for the procurement of pesticides, fertilizers, machinery, and equipment for small tea farmers should be produced at subsidized rates by the State Department of Agriculture. The government should as other commercial crops also declare the minimum subsidy price for the tea. In order to develop tea processing plants on a co-operative or private basis, government support and credit facilities should be given to small tea farmers by the state. Small tea farmers can jointly establish cooperatives so that they can make their lots smaller in bulk to match the paying prices for their goods³⁵. In order to sustain plucking intensity, small tea growers can send staff higher wages during peak plucking season. The staff might otherwise transfer to the major tea plantations.

5.2 Reasons behind the fall in tea production

The 1990s were very depressing for India's tea industry. Firstly, the fall of the former Soviet Union was firmly a faithful Indian tea industry. The USSR has earned tremendous sums. The Russians hunted for affordable teas in the middle of the 1990s, when the business recovered. There was a battle for Russia to satisfy its demand at its prices in the tea industry, particularly in the South. In the North and later in the South, the sector constantly faced workers' difficulties. The southern Indian teas seriously ruined its reputation by matching Russian rates and utterly disregarding consistency in the process. Some garden areas were also shut down and purchased by merchants who have capital at their side after the Supreme Court of India directed their plate company to be shut down. The merchants predicted big returns and enjoyed it for some period in the tea garden. Later, as tea business fortunes decreased as a result of Kenya's global demand bounces, the merchants actually fled the plantations to escape compensation due to social commitments³⁵. They vanished. They have not known the plantation sector and are too young for the industry to recognize the nuances. The traders tried to go back to their garden but were stopped when the industry saws some light after the drought in Kenya. The employees also took over development and were commercializing green leaf harvest in the purchased leaf tea factories. Work was only one of the industry's several challenges. There were issues with commerce, auctions, shipping, purchases, taxes etc. There were difficulties. In general, the condition was pathetic in the Indian tea industry. However, the majority of the businesses performed very well, which requires adequate information of the institutions and activities of the sector.



Source: Indian Tea Association, LSI Research

Figure 18 - Tea Production , Shares of Tea Production States in India and their Growth rate

5.3 Measures taken to improve the situation

Tea Board has removed restrictions and legislation and is responsible for supervising and controlling production and trade like exports. During the 10th Plan Era, the Board undertook to establish interim export development strategies³⁶. The goals of this workshop were:

- Concerted efforts to create and market the "Indian Tea" logo and enabling big players to establish brands.
- Regional sector diversification and main market restructuring.
- Robust ranking and reliability monitoring software for exporters.
- Targeting added value for particular customers and specialty segment prospects.
- Product-mix re-alignment in response to demand in core value markets.

- Complete commodity rating up grading method.
- Comprehensive industry-wide backbone with further openness and pricing dissemination as well as other relevant business information.

The Tea Board was strategic on 22 markets in 2002, in conjunction with the Medium-Term Export Policy for Indian Tea (2002-2007). Indian tea exports to those markets could be raised to a total of 280 million kg, up by almost 72 million kg. On the contrary, during this time exports decreased, and substantial losses were recorded³⁷.

In Egypt, UK and Poland, significant markets are being pursued. Indian exports have also declined to some limited yet highly compensated markets such as Saudi Arabia, Germany, Japan, France, Ireland, and Sudan. While the export amounts to the USA, Iran, Syria, Canada, Australia, and the Netherlands increased somewhat, these markets combined increased in limited quantities.

The tea sector blamed the Tea Board, especially in markets where concerted measures were expected, complained of the lack of industry support. Whereas there has been a sharp drop in exporting issues throughout, no concreteness has been achieved to reverse the condition. This inactivity possibly gave the changing global circumstances an honest appreciation that has constantly adversely affected India. India lost its dominant role as China's leading tea maker in 2004. Kenya's exports already moved Sri Lanka to third place, moving India. Of course, India doubted the rise of China as a leading tea manufacturer, citing restricted data collection and output reporting³⁸. The Tea Board subsequently undertook to revise output results. At Board stage, new global policy involves capturing China's black tea domestic market. The industry both at home and abroad frequently reflected on the Tea Board's job and emphasized that it has neither the skills nor experience to address global marketing problems. A Calcutta IIM report made a number of important remarks on the Division concerned. The Tea Board established in 1952 was primarily responsible for controlling the Indian tea market. In the current modified conditions, where the consumer structures have new and far longer expectations, the Tea Board's charter could be redefined, its operations re-focused and reduced in scale. This will help to ensure that the Sri Lankan and Kenyan Tea Boards work extremely dynamically and well-focused. One of the approaches to conquer rivalry is to realize how it functions.

The Indian tea sector is at a crossroads that do not know how to remedy adversely impacted developments in global markets³⁹. There is ferocious rivalry outside India, a high expense, a low standard and a changing market appetite contributing to non-competitiveness. Slowly, the

domestic sector opens up to imports that can compete both in cost and quality. The new condition is that the Tea Board is now perhaps despicably resigned to India being unwilling, at least in the near future, to succeed in foreign markets. The policy is to preserve the sector in domestic markets where there is a significant workforce in the tea industry in particular. Unfortunately, the real consumption in the domestic sector is not very well known. There are those who think it rises, and some people who believe it stagnates, and there is a sense in some educated places, that the average consumption of India in India is higher than the rise. The truth remains that, regardless of what the domestic industry uses, the global markets will need to export a large surplus of about 180 - 200 million kilograms⁴⁰. Trade figures suggest that approximately half of this is of low quality and will at best cost about Rs 40-45 per kilograms. Assam teas are a good quality commodity, already highly priced on foreign markets, but with seasonality and high prices being impacted. Assam manufactures about 56% of tea in India.

5.4 Tea business situation in West Bengal

The Darjeeling, Dooars&Tarai areas are among West Bengal's finest tea manufacturing areas. However, it is owing to a shortage of food and to other causes of sick gardens that the labor of the plantations is gone. It has been found that certain labour, regardless of multiple factors, actually need an increase in minimum wages, are working below standard living standards. The worker's children are often found to suffer from various chronic diseases attributable to inadequate nutritious food.

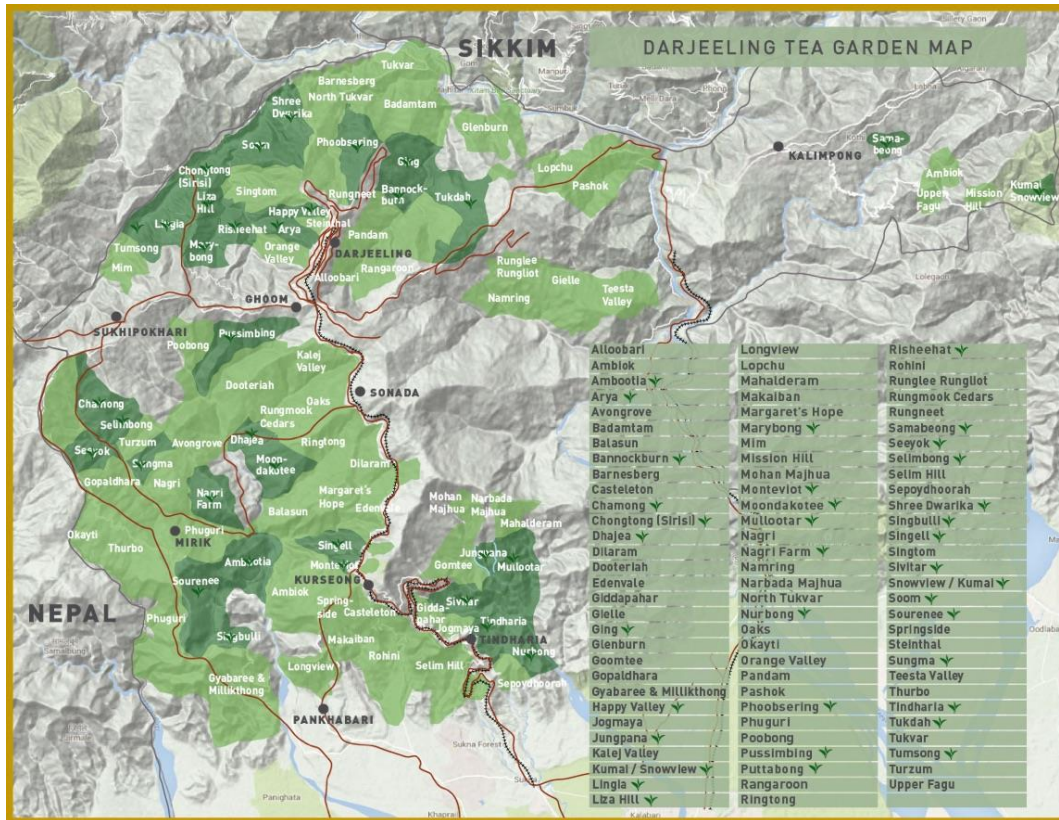


Figure 19 - Darjeeling Tea Garden Map

The salaries of the staff are used to structure the tea-producing countries under the Labor Council. The pay is used to rise day by time under the Tripartite Arrangements of the Legislative Body of Employees and Government⁴¹. Salary is provided by free houses, hygiene, clean water, prescription goods, power, coal, primary education and nurseries and subsidized food supply. The staffs have made little attempt to purchase these products because the selling price is rising for other consumables. The key factors are, however, the employees' desire for more minimum While the Labor Plantation Act (PLA) adopted in 1951, but some tea gardens were found that the gardens had not been completely operational, as specified in the above Act. In public and private providers, a few employees undergo care. High cost poses hurdles to better care for staff. Other factors revealed that, owing to non-subsidies by the respective States under the Plantation Labor Act of 1951 & The Laws of the respective States, the planters are unable to retain their The tea gardens are not protected by the new schemes implemented by the Central and generating States, such as panchayat and urban growth authorities, to establish urban areas. The staff and local residents in and near the tea-growing areas are thus deprived of these services. The tea industry

now vigorously pursues the State authorities to promote the scheme of tea growing areas for staff and local citizens.

5.5 Small Tea Growers of Assam and North Bengal

The small tea growers (STG) in North Bengal has been mushroomed since tea has been found to be comparatively economically viable than other crops and seems to stay rewarding in future years too.

Assam by the Numbers

Assam produces Orthodox and CTC black tea as well as limited green and oolong.

- 2.3 million hectares of tea bushes
- 765 tea estates and 100,000 small gardens
- 753 tea factories produce 570 million kgs, more than half of India's tea
- 13% of global tea production is from Assam

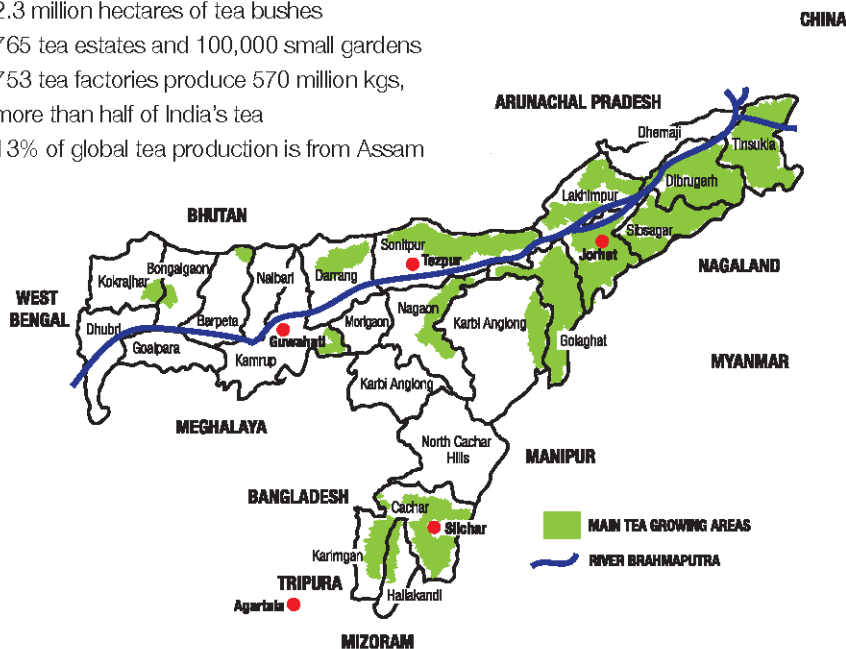
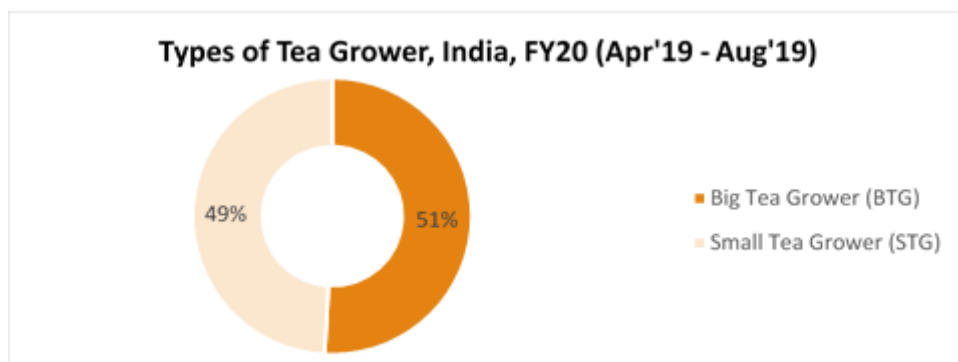


Figure 20 - Main Tea Growth Areas in Eastern parts of India

Nearly 15,000 STGs now cultivate tea in North Bengal, and almost three lakhs operate in rural areas directly or indirectly. To understand the plight of the STGs of Assam and North Bengal, it is appropriate to address the policies of the government.



Source: Tea Board India, LSI Research

Figure 21 - Types of Tea Grower

5.4.1 Regularizing policies of property:

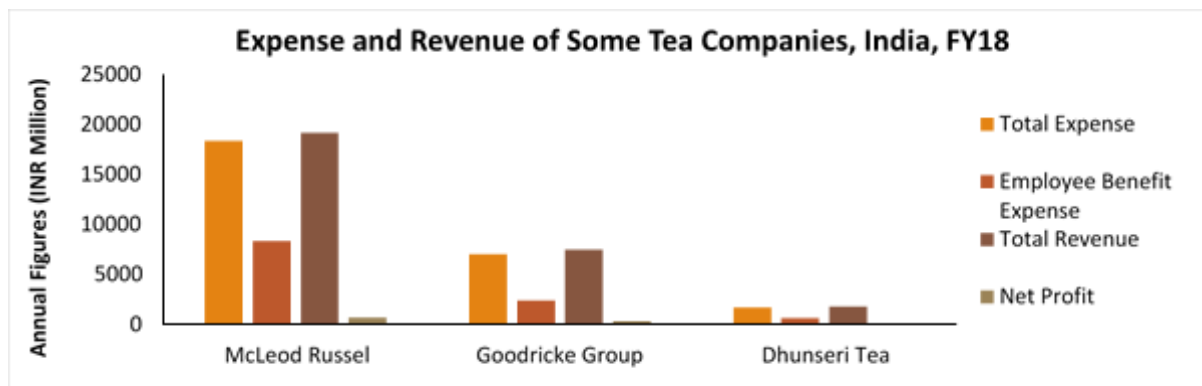
The majority of farmers in Assam cultivate tea, ceiling surplus land, etc. In the absence of appropriate land records, the STGs are unable to file their own farm units with a tea board. The Assam Land Keeping Act 1956 (three-times modified in the year 1972, 1975 and 1976), however the Assam Government did not deem tea to be a special cultivation under the Act (such as 80 bigha, 30 bigha, 30 bigha, and others, 30 bigha) as a maximum cultivation of a farm land⁴². However, the STGs must be included in this statute and may obtain the benefits under the description of the tea board. Because the land is a matter for the state, its tender nature has intensified the issue of the estate. In addition to the order RSR-9/88/PT/1-31 of Assam's Revenue Departments of 19,2000 of April, the issue with the grounds has increased and premiums on subsequent land groups if one intends to purchase public land for tea development are decided. In separate groups, the relevant rates are:

- If a young unemployed individual wishes to buy government property, the present market cost
- If you want government land for planting, you have to pay a premium of 150% per
- If he wants government land invaded for agriculture, the current market rate must provide a premium of 200 per cent per bigha. In addition, Rs 3 per bush must be charged as a punishment for not having previous cultivation permission.

5.4.2 Implementation observations:

The reimbursement by the STGs of such premiums to the Government is not feasible. In addition, the STGs cannot depend on regular land value values in Assam, as these differ from district to

district and also within districts. The Disguised STGs will, however, take advantage of sound land economically. In addition, STGs in Assam still have to use patta ground. They are having a number of challenges in getting a bank loan⁴³. It is proposed that the government of Assam should change anti-STG land policy, rendering land regularization a simple mission. In areas where farmers have developed tea, the government can come up with a pleasant farmer's policy and undertrain preference allocation of land. The D.C of Lakhimpur in this respect



Source: Business Standard, LSI Research

Figure 22 - Expense and Revenue of some Tea companies, India

The Assam region can be used as a role model for the Land Certificate initiative of the 100 STGs. Large numbers of STGs have not yet applied for the regularization of the property in Northern Bengal too. Most of the STGs appreciate the difficulty of government processes. The Government of West Bengal planned a set of taxable slots for STGs. Income tax for agriculture of 30 percent is true for STGs in addition to panchayat and technical tax.

In West Bengal, there is a need to take NOC or long-term lease for tea growing from the land and land reform departments in Bengal. While the Labor Department has not taken significant steps, the current Chief Minister of West Bengal has formed a panel on tea growers in their own fields, or in some cases utilizing government Patta / Khatiyani Land / Tribal Land⁴⁴.

5.4.3 Policies to stop green leaf theft and smuggling:

There is a continuing concern of the district administration regarding green leaf theft from different upper-Assam tea garden. The STGs of North Bengal have always been dealing with smuggled tea from Nepal. However, in Assam, a Tea Monitoring Committee was set up in 2000, with representatives of ABITA and TAI (Tea research India), BCP (Bhartiya Cha Parishad), STGs and BLFs. Other members of the Committee are members of ABITA, BCP (BHP), BLF

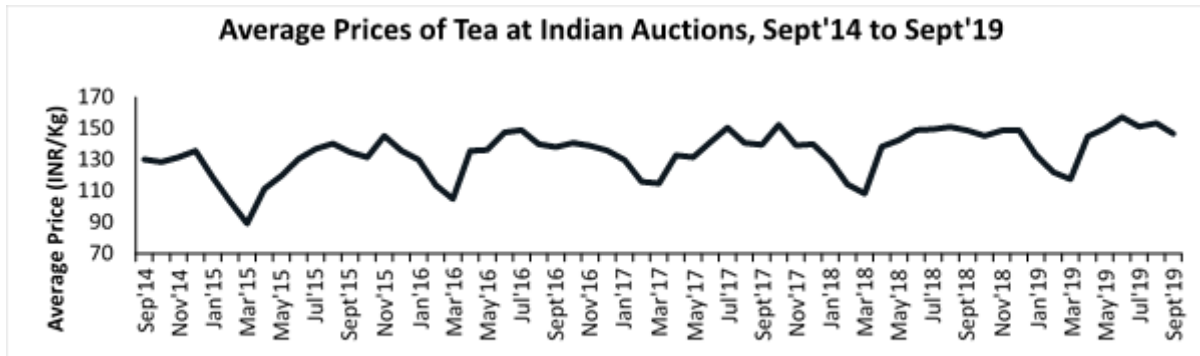
organizations. In addition, the two district levels officials may also be liable. Some of the practices addressed in their trials should be performed by STGs not to facilitate the carrying or procurement of illicit tea leaves, stealing, the adequate control of the market of green tea leaves and truck carrier operators engaged in carriage of green leaves⁴⁵. Conditions in Northern Bengal are expected to change now following a meeting held in Kolkata by the Minister of Industry and Commerce. A special policing will be introduced along the Indo-Nepal border, as proposed by the government of India.

In its 10th plan era, the Tea Board has established unique schemes for the formation of SHG in the area. The concept of SHG is being mooted as it would be easier for the GTS to dispose of green leaf directly into output factories and at a fair price. Nevertheless, the Lahdoi cooperative society was founded in the Dibrugarh district, but it could not survive. In addition to providing and supplying input, distribution of technologies and information, feed selection, storage and transportation are some of the areas distributed across this definition. To the North Bengal SHGs, the SHG research of the neighboring Northern East State of Tripura's Durgabari SHG has followed the model for these purposes.

Coining the STG's development as a sociological phenomenon in Assam, the Minister of Commerce of the Union, Jairam Ramesh, says that the Tea Board of India would set up five cooperative tea processing facilities for STGs in Assam. The Tea Board will soon identify where these cooperatives will be processed, varying from 200 to 1000 kg. The Board of Directors will also finance the cooperation, and the state exchanger Rs 40 lakhs will be paid each⁴⁶.

STGs are also not paying for their leaves in North Bengal, and concerns about the nature of the tea produced have frequently arisen. The suggestion to open at least five plants is adopted by the Tea Board including Assam.

Two years back, the price of green leaves from peak Rs 12.50 per kg has fallen to the Rs 2.30 per kg, which obliges STGs to burn most of their produce as they do not have the storage capacity or the adequate machines. Two years earlier, more than four lakhs of green leaves were burned on the side of the national route in Upper Assam.



Source: Tea Board India, LSI Research

Figure 23 - Average Prices of Tea at Indian Auctions

5.5 Land Use problems

Tea is an industry based on the land occupying almost 2.4 lakh ha. As a late comer, the small sector has found little virgin highland. Most of the land used by farmers may also be called 'second rate' land for tea growing. Any of these cultivate tea in surplus grounds with ceilings, grasslands or governmental lands reserved or incarcerated or intruded on their own lands.

Virgin Land:

Government land which remains unused for farming activities includes in this category village woodland lot, degraded forest land, allocated or encroached land.

Crop replaced land:

Much of the area under small-scale tea cultivation is covered by this category. Such areas include bamboo substitution, areca nut, sugar cane cultivation, orange, pineapple crops, and so on.

Marginal land:

In this class, government grazing ground, paddy kindergarten, high-level paddy field, barren soil of different nature can be included in the list.

Unsuitable land:

This is a place which is not at all desirable to cultivate tea commercially. This range covers low soil, low-lying sand and damaged land formerly utilized in different agricultural applications.

In order to address this issue, the STG's registration mechanism should be properly advertised in vernacular for easier access such that the untrue apprehension connected with the registration would vanish. Furthermore, since property is a topic of a State, land regularization is a must within a time frame.

5.6 Strategy and regulation

The tea manufacturers still are at the receiving end, without a well-established marketing platform for goods of GTS. The whole practice of selling green tea leaves, as stated before, is determined by owners of the factory. In Assam there are nearly 150 BLF dispersed, but the payment of green leaves produced by STG does not rely on any mechanism. The cost of growing green leaf is Rs 8.50 paise per kg (including labor charges) however, the BLFs have set the green leaf prices as Rs 7 (including the cost for transport). Unless these BLFs are provided with 'Chalan' (permit)⁴⁷, They have the brokers to market their tea. Furthermore, some of the STGs seem to supply inferior quality green leaf the issue (coarse and damaged leaf). The transport of green leaves is another related issue that eventually led to the development of agents who are eating a significant portion of their income. In order to ensure the quality of tea, efficient cooperation between STGs, green leaf transporters, agents and owners bought by leaf factories (BLFs) is necessary to hold the code of quality tea, i.e. two leaves and one palm, intact. It would definitely benefit to replant young bushes periodically. Proper STGs label branding may also be considered in the immediate future as a heat drink. Although the Tea Board is responsible for enforcing numerous government legislative and regulatory directives in relation to tea regulation, company licenses for tea experts have not been enforced for the SHG market.

Latest advances have also improved the small tea growers in the foreseeable future, with a new idea for future trade. This may be a successful marketing method for tea. The Tea Plantation Labor Laws, which come under the Tea Plantation Labor Act of 1951, are to be amended by tea producing states in India, in order to allow the tea industry to increase its quality production and the holistic growth of tea workers so that various schemes already framed for the rural citizens of the respective States are enforced.

5.7 Labor problems

Many tea gardens in India in particular are closed due to poor yields, high development costs and decreasing rates. These gardens just aren't viable economically. For a number of months, Labor and other responsibilities have not been compensated under the Plantation Labor Act. 14 tea gardens are already closed on the foothills of the Himalayas in Dooars, a broad tea-producing region in West Bengal. At least 17,000 employees have become unemployed, and 571 deaths have been admitted in the past 15 months by the state government. In order to improve production, the

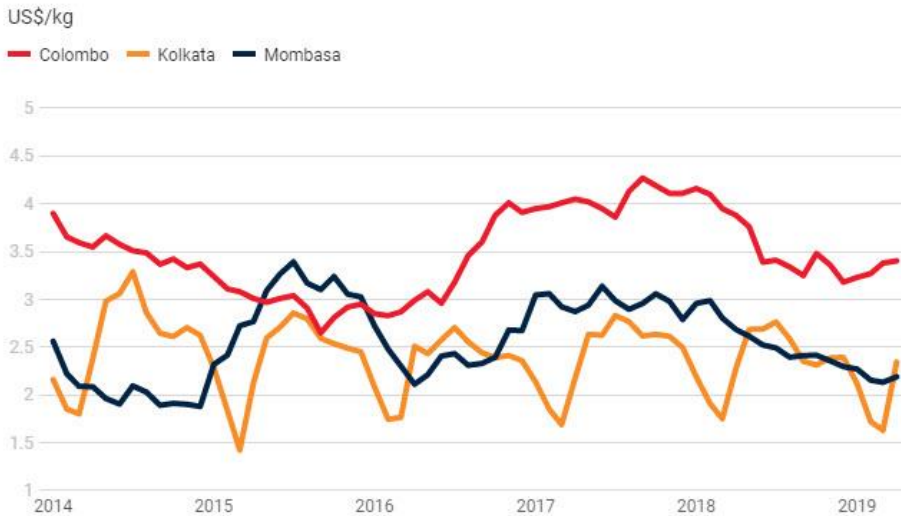
government has announced a package of 1,190, which will be provided over a span of 15 years, including re-planting tea boughs in the plains and rejuvenating gardens in the hills. The expenditure for the reconstruction and repotting of the tea plantation sector would consist of Rs.500 crore in 2007-2008⁴⁸. In the previous years, the government offered financial aid, but it did not change much.

Often, under an alternative in the Tea Act that has not been used till now, the government often recognizes the prospect of the closed tea gardens and hands them over to new owners. Most funding from the government goes to the tea plantations. How far does plantation job really profit explicitly from this? In persistent confusion and disruption in tea plantation labor, the solution is right here. Even the government's talk of capturing sick tea plantations is a regressive move in the sense of the globalizing Indian economy.

5.8 Competition between Indian and Chinese tea

Chinese and Indian tea industries both enjoy very old history of tea. Chinese tea industry has got international reputation and scale economy at times as early as Tang Dynasty, while the development of India tea industry started much later. It was the arrival of East India Company in 1820s that made India tea into the world stage. It can be said that the decline of Chinese tea industry since 1840 had accompanied with the rise of India tea industry. Today the two countries stand together as the two main tea countries, but the producing, running and marketing processes of Chinese and Indian tea industries are distinct from each other.

Tea prices



Note: Last observation is April 2019.

Source: Colombo Tea Auction, Mombasa Tea Auction, Calcutta Tea Auction, International Tea Committee

Figure 24 - Tea Prices \$/Kg

According to Lu Yu, writer of the book *Tea Classics* during the Tang Dynasty, Chinese tea has enjoyed a past of more than 4000 years. In the West Zhou Era in ancient China, tea was used as religious offerings. Since the Jin Dynasty, tea drinking had spread to all parts of the country. The modern drink turned tea into a global product. Tea as a drink prospered during the Tang Dynasty, and tea became widespread among common people. Tea became a significant crop during the Song Dynasty. Tea farms served more than 200 districts. Tea cultivated in Zhejiang and Fujian provinces is used as costly tribute tea, some of which was also sold to Southeast Asian and the Arab countries. In the Ming and Qing Dynasty, tea trading started to play an important role in the government's economic plans and the "Tea and Horse Bureau" was set up to supervise the tea trade. Arabic traders shipped tea from Fujian Province, China, during the Song Dynasty. Tea was offered in the Ming Dynasty in South East Asia and in South Africa. In 1610 tea was on a Dutch merchant ship to Europe by way of Macau. Tea became a global drink then. China was the first big nation to sell tea on the world market from the Tang dynasty to the 19th century⁴⁹. The usage of tea as a drink in the Chinese people spread from the Jin dynasty to the Sui dynasty.

After 1830s, the then British colonies, India, and Great Britain's tea production center, had learnt how to make tea and started to contend on the global tea market with China. China started to lose its powerful tea market role after the Opium War in the mid-19th century for historical causes and other reasons. The tea industry in China has since been virtually ruined and has weakened its

dominancy in India. The competitiveness of Chinese tea steadily deteriorated and in 1949, before the People's Republic of China was established, plunged to their lowest point of history. Subsequently, Chinese tea exports begin regenerating and growing their market shares in the world.



Figure 25 - Chinese Tea

The Chinese tea industry has great advantages in terms of natural capital, climate, tea and technology. Furthermore, China has great potential in the region, becoming the world's largest green tea growers and exporters. Except in black tea, China has a less comparative edge. Although the demand for green tea and oolong tea and increased demand for black tea is poor on the world market, China must urgently increase its capital in order to increase the foreign competitiveness of black tea⁵⁰. In comparison, small-scale farmers also have a bigger share in tea plantation in the Chinese tea industry, which contributes to poor tea productivity. Industrialized manufacturing is challenging to accomplish. The biggest challenge to China's tea industry is the absence of major tea brands.



Figure 26 - Indian Tea

India also has a long tradition in tea processing. Tea in India is eaten in the Ramayana from 700 to 500 BC. Tea has been grown for thousands of years in eastern and northern India. However, in the early 1820s, tea cultivation was commercialized in India by the British East India Company. At the beginning of the 1820s the UK East India Company started manufacturing greater quantities of tea in Assam, India. In 1837 Upper Assam became the first English tea garden. In 1840, the Assam Tea Company started commercial tea cultivation in the area. The Indian tea industry grew quickly from the beginning of the 1850s. Assam has now been the world's largest tea growing region.



Source: Intracen, LSI Research

Figure 27 - Indian Tea Industry Trade Value

Indian tea output in South India and in North India is concentrated in rural hills and backward regions and tea production in North India accounts for 75% of the overall tea production. The Assam Tea Company and Sikkim in Northern India are the world's largest tea bands and known worldwide for their high-quality tea. The high degree of industrial concentration is a characteristic aspect of India's tea output. 88% of the tea gardens occupy 8 hectares and 2.5% of the tea gardens covering over 400 hectares. There are 740 tea plantations, each with an area of 303 hectares, as well as separate manufacturing plants, packaging plants and export industries in Assam alone⁵¹. India grows primarily black tea, but its green tea production has also risen in recent years. Tea planting differs from the initial Orthodox, CTC, to Green Tea in India, from Darjeeling to Assam and Nilgiri. Tea plants are also present. Orthodox tea for export is made. Green tea is comparatively limited in India's production.

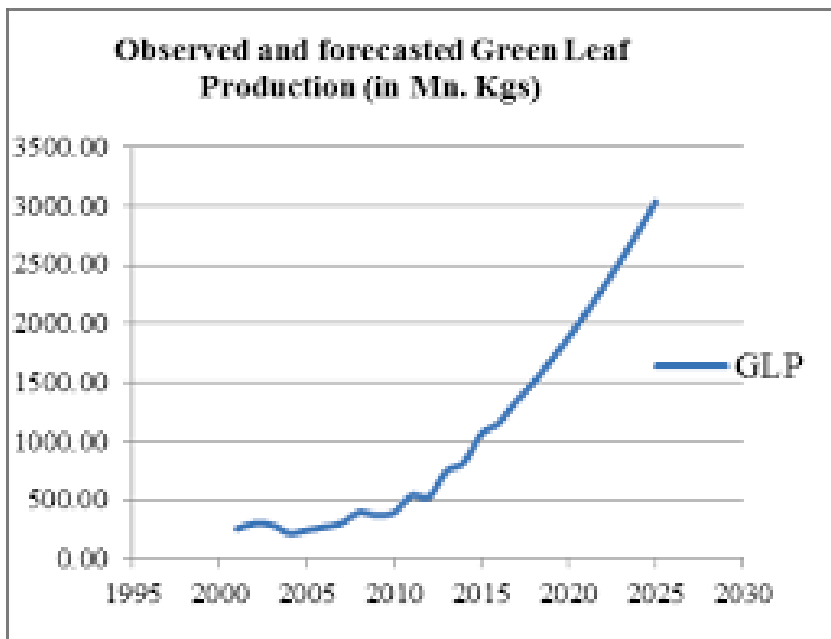
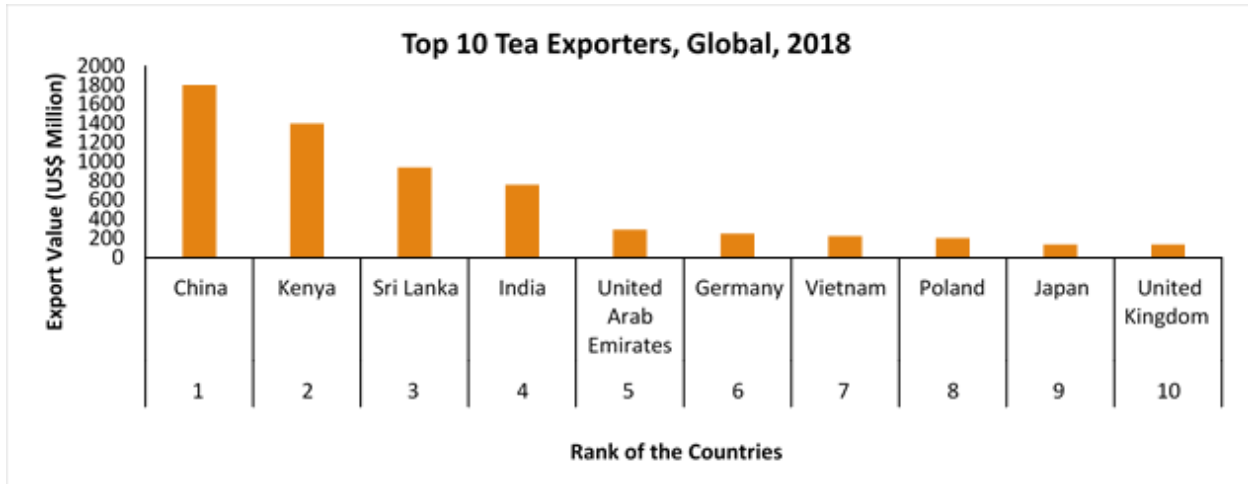


Figure 28 - Observed and forecasted Green Leaf Production

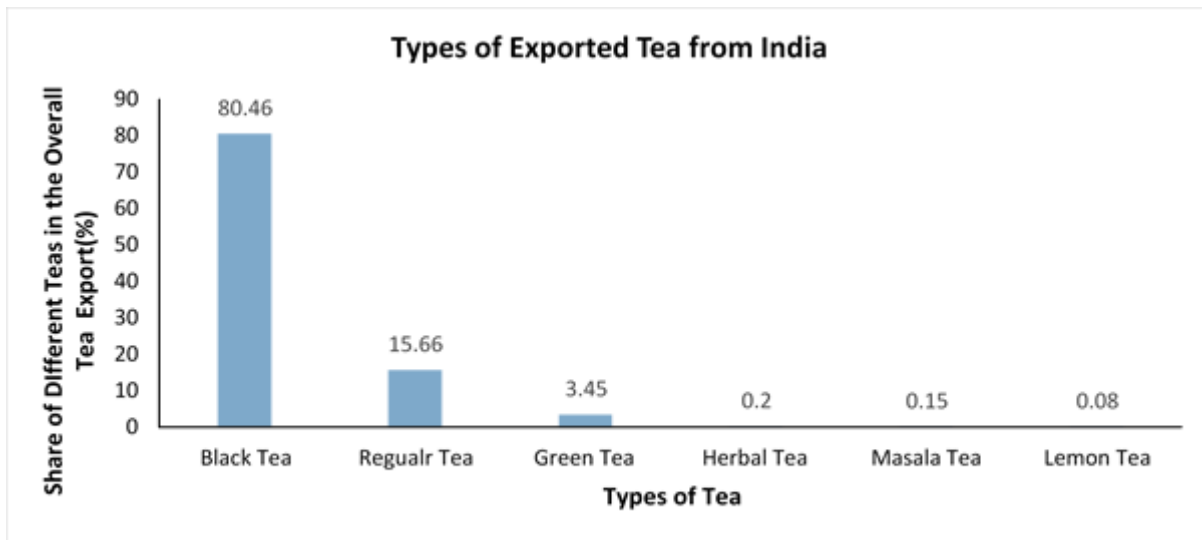
Indian tea has long been the country's most significant foreign exchange payer. Britain was the largest Indian tea purchaser. Even Russia is Indian tea's biggest buyer. However, in recent years, exports of Indian tea to Great Britain and Russia deteriorated as a result of rivalry from China, Kenya and Sri Lanka. China is the main growing area for green tea, although the orthodox tea varieties of Kenya and Sri Lanka clash with India.



Source: World's Top Exports, LSI Research

Figure 29 - Top 10 Global Tea Exporters

India was the largest tea producer in the past one and half centuries yet, as a result of rising land supply, China has recently re-established its dominant role for tea output. Despite this, India has developed many well-known tea brands in the world, including the Indian Tata Tea Company, which tends to be India's biggest tea brand and still the second largest tea brand worldwide.



Source: Exportgenius.in, LSI Research

Figure 30 - Types of Exported Tea from India

More than 50 tea estates, particularly in Assam and Darjeeling, are in the business. One of the first foreign corporations in India is Tata Tea Company. In the global industry, Tata Tea has had tremendous success. Tata Tea purchased the UK-based Tetley Company in 2000⁵². That was an important event in Tata's history, as Tetley was only second in Unilever's Lipton to the second

largest tea firm in the world. The acquisition significantly encouraged Tata Tea Group's growth in the global market for tea.

6. Conclusion

6.1 Conclusion

In most important markets, Indian tea exports have declined dramatically. While several businesses appear to be active in developing niche markets for their goods, their number obviously does not rise and may even decrease. Some of the plantation companies have performed well over the past five years, amid the extreme recession, because of their good ties to the managers in London and unwavering regard for quality. In Kyrgyzstan, maybe the last bastion of the Indian Tea Leaf, Indian companies are still doing well.

The productivity of the business declines as the competition shifts and the buyer improved, and diverse choices are armed with enhanced buying power demand. An indication of this is the increasing change to tea bags. Indian businesses will only make good on commodities prices, having produced only limited value-added acquisitions⁵³. Regardless of the value-added investments that are currently ongoing in Sri Lanka, such as tea bag machines, Sri Lanka has spent significantly in the last ten years, thereby attracting a substantial share of the world market. Naturally, Sri Lanka does not have too much direct rivalry with India as an orthodox tea provider. Kenyan teas from comparatively younger brewers provide the highest consistency for tea bags. They are relatively cheaper in labor costs. The tea industry in Kenya is also more successful than the Indian tea industry because of the reduced leadership of India in main markets. In almost all key markets, Kenya has claimed India's leadership role. Indeed, India is no longer a big player in the world tea markets. The tea industry in India is becoming less efficient and the niche industries, marked mostly by product imports, survive Indian companies.

6.1.1 Indian tea business problems and threats

- Rising demand for organic tea and environmental quality assurance was guided by steep rivalry and better world standards – owing to lower products costs from Kenya and other countries.
- Tea plants need to be replanted every 5 years, but most tea plants are above 20 years of age; uneven climate change precipitation impact the productivity and the quality of Indian tea, which contributes to lower prices on tea auctions.
- Weak conditions of employees and low salaries - in 1951 most workers and their families live in unsanitary conditions and earned low wages, in view of the requirements of the

Plantation Labor Act - this dilemma needs to be tackled provided that the foreign media have drawn attention to 'starvation deaths' in Northern Bengal.

The problems confronting small tea growers –

- Not the best price for green leaves
- In comparison to broad estate, STGs cannot capitalize on the size and selling of goods as a party because they are unorganized
- The Tea Board of India is mostly not remembered for land ownership laws and associated procedural issues. This ensures fewer details on the position of the STG allow political cooperation impossible.
- In addition to the expense of gardening and decreases the productivity of the Sector, industry leaders claim the social security regulation, as prescribed by the PLA, 1951. There are still concerns that a tea estate worker should not have a minimum wage – however the industry notes that the 1951 PLA offers a cash pay and services.

6.1.2 Responses to the obstacles and problems confronting India's tea industry

Impact of COVID 19 on tea production in India

- In India, a nationwide lockdown, triggered by the WHO declaration, coincided with and ruined the first flush harvests of Darjeeling and Assam tea, creating ripples in the tea-loving country. There were worries that many employees might carry the virus back to the hills in Darjeeling, where many were returning from shelter across India, and all work halted. For an area that produces about 40% of the yearly revenue from this occurrence, including Nepal and Sikkim, the loss of the first flush is especially devastating. The first flush was also missed in Assam, but it had no other detrimental impact.
- The lockdown also stopped output and by June the production in North India fell to 113 million kgs the previous year, thereby restoring supplies to demand. Typhoon Amphan destroyed millions of kilograms of tea in Kolkata equivalent to 6 weeks of domestic consumption.

SWOT analysis of tea production in India

| | |
|--|---|
| <p style="text-align: center;">Strengths</p> <ol style="list-style-type: none"> 1. Quality. 2. Base of the Production. 3. Backed by extensive scientific research. 4. Strong Labor welfare Law. 5. Beneficial for Small Tea Growers. | <p style="text-align: center;">Weaknesses</p> <ol style="list-style-type: none"> 1. Old Tea plants. 2. Decreasing availability of labors. 3. Difficulty in setting up new machineries. 4. Lack of quality control 5. Fluctuations in Quality due to Climate change. |
| <p style="text-align: center;">Opportunities</p> <ol style="list-style-type: none"> 1. Awareness of the health benefits of Tea. 2. Atomization of the factories. 4. Tea Tourism. | <p style="text-align: center;">Threats</p> <ol style="list-style-type: none"> 1. Completion with china. 2. Climate change 3. COVID 19 outbreak 4. Loss incurred due to COVID 19 |

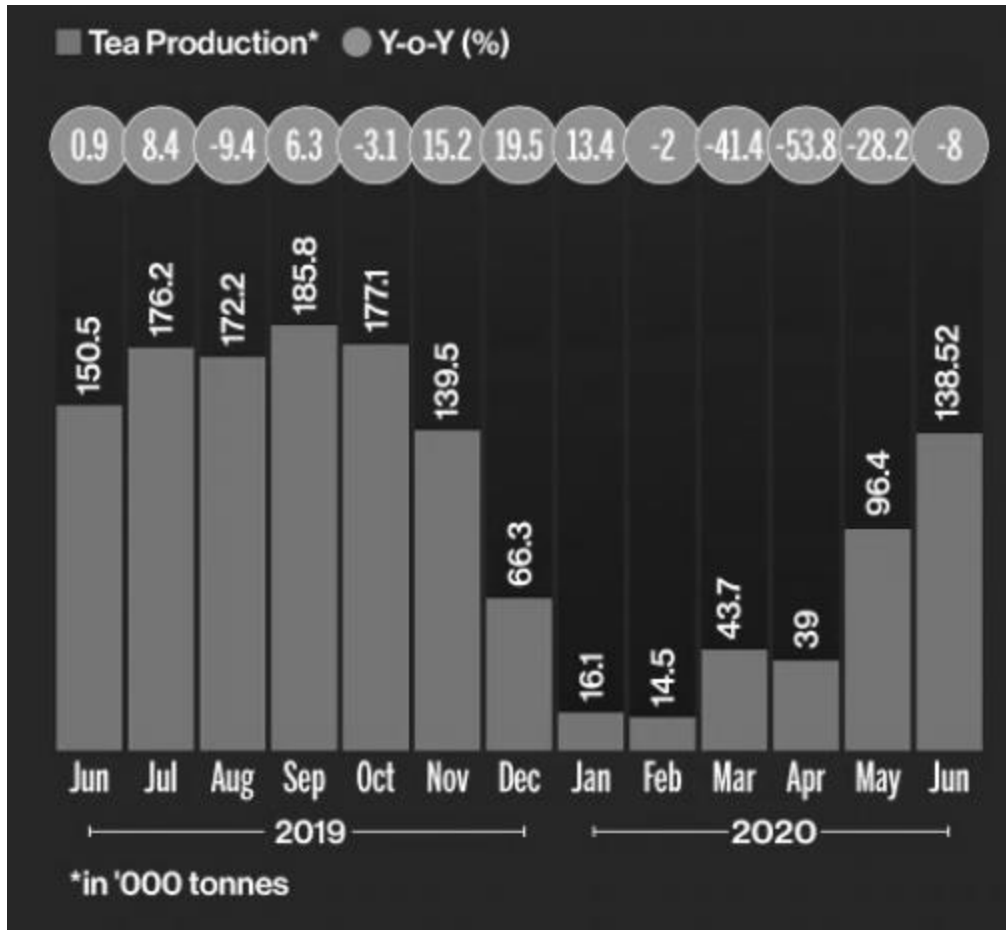


Figure 31 - Impact of COVID 19 on tea production of India in 2020

- The Tea Board of India recently published the Plant Safety Code, which aims to achieve GAP sustainability, including IPM, promotion of alternative management techniques (biological testing, etc.) to increasingly reduce chemical dependency – to fulfill green consumerism on the export market
- As in Sri Lanka, India has been proposed that it should propose integrating different government plans with the incentives given by PLA in 1951, growing tea producers' enforcement pressure in 1951, and also contributing to growing the workforce's quality of life.
- a distribution arrangement with STGs to enable them to promote the goods at the right price and therefore improve exposure to the consumer.

- Increase understanding of improved plantation and workers' conditions and financial help to boost mechanization in tea gardens.
- The Plantations Labor Act 1951 (PLA) refers to any property for the use of or use of for the cultivation of tea, coffee, rubber, cinchona or cardamom or other plant measuring five acres or more and where, on any day of the previous 12 months, 15 or more employees are working. This rule can even extend to any other property by the State Governments, except though it measures less than five hectares and has less than 15 employees.
- State governments are the qualified authorities, under this Act, to render laws, modifications or to give instructions. Free accommodation, medical services, primary school, clean water, hygiene and crèche are all the facilities that the industry wants to have. These provide concessional power, food grain, firewood, footwear and so on.
- Regular rest, compensated yearly leave and the amount of hours of labor per worker are given. There are limits. Neither the worker nor the Union has the ability to lodge a lawsuit against the Plantation owners and to commence legal action against them. These privileges are extended only to the Chief Administrator, whose complaint is liable to the punishable crime under this Act by the Magistrate of the second degree.

6.2 Recommendations

- Among the leaders of the Indian tea industry there is a lot of dissension. All sorts of laws are advanced and most rely on acts and funding from the government. In the other side the government is just tolerant of all other activities when they influence the tea sector even as they involve the small farmers. It is about time the government removed from all other activities.
- Farm and equipment expenditure must come from the market without any government support. Since business must compete internationally, global access to capital is required. The interest rates are sustainable. The subsidies have long been a hindrance to the growth of sustainable industries.
- Bank loan reforms are almost as urgently as improvements in the economy elsewhere. The sector of tea plantations requires major capital injection. The banks cannot be afraid that they would bear the risk. Capital expenditures must be compatible on a global level.

- The Government would have to keep the hands of the small tea farmers before they are effectively coordinated. A start in that path has yet to be made. Overall, the small tea maker has so far been kindly dismissed.
- World competition has its origins in consistency at an inexpensive price. This is a dilemma that impacts and affects the business directly. At their level and at the level of each business, the industry needs to cope with this. It's easier to claim high standard, but it's got to be compensated by customers. There are corporate choices that can only be adopted by specific businesses. There is no position for the government.
- Each business would have to establish and regulate the economically and manageably supply chain.
- In the context of the emerging food protection and quality issues, PFA requirements remain basic and must be revisited.
- The value-added tea sector has already been crowded and Indian hopes to have a huge effect. However, attempts in that direction can be made in the expectation that a dent can be made.
- The bilateral deals are mainly concluded, tea markets in product type are diminishing, countries have the option of buying tea anywhere the best quality and pricing suits them, and other global producers are keenly bent on the Indian market. It is really clear to write on the panel.
- The Indian farmers will begin to struggle as the Indian market opens up for unregulated tea imports. Maybe merchants will move from selling to importing firms who regularly leave farmers in abeyance and government fires.

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