

Tea Industry in North Bengal: Opportunities and Challenges

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ABSTRACT

Tea industry plays a pivotal role for the sustainable development of Norther part of West Bengal. North Bengal is famous for 3Ts comprising Tea, Timber and Tourism. It is one of the important agro-based industries not only in West Bengal but also in India. The Sub-Himalayan North Bengal comprised of eight districts, namely Darjeeling, Jalpaiguri, Cooch Behar, Alipurduar, Kalimpong, Uttar Dinajpur, Dakshin Dinajpur and Malda and it is internationally renowned for its tea plantations, mainly Darjeeling tea, which enjoys Geographical Indication (GI) status. The present study is descriptive in nature and is based entirely on secondary data collected from Tea Board of India, Annual Report, reputed journals, articles and books etc. The objectives of the study are to examine history and growth of tea industry in North Bengal, its problems and prospects and suggests some policies measures. It also analyses spatial disparities using descriptive statistics such as mean, median, Range, standard deviation, and coefficient of variation. The findings of the study reveal a significant regional concentration of tea gardens in the Jalpaiguri and Darjeeling districts, along with significant inequalities in distribution and productivity. The study revealed that sustainable practices like economic sustainability, worker welfare, and market expansion can ensure sustainability of the tea industry in North Bengal. Effective policy intervention and cooperation among stakeholders are essential for energizing the industry.

Keywords: Sustainable Development, 3Ts, Geographical Indication (GI), Diversification, Long-term Viability, Market Diversification.

Introduction

Tea is popular as the most revered beverage in the world. The word 'tea' was derived from ancient Chinese dialects. The words as 'Tehai', 'Cha' and 'Tay' are used to define the tea leaf as well as the beverage. Tea was born in the Yunnan province of China. Then it was developed mainly in Canton (Gungdong, or Kwangtungor Kung tung) and Fukien (Fujian) regions. According to Chinese legend, tea was discovered accidentally by the Chinese Emperor Shen Nong in 2737 BC. It was around 300 A.D. when tea became a daily drink. Tea industry historically has been the second largest employment provider in India. Tea plantations employ approximately 1.1 million workers with more than 50% of women labourers. According to the **Tea Board of India's 71st Annual Report (2024–25)**, India remains one of the **top global tea producers** with tea production figures around **1,303.53 million kg in 2024**. This confirms India's position as the **second-largest producer behind China**. Based on recent data (2024-2025), the tea industry remains a cornerstone of the economy in North Bengal and West Bengal, while contributing significantly to national employment and export revenue. While its direct percentage contribution to the national GDP is relatively low (approximately 0.5%–1.5%) depending on whether only processing or total plantation-related value is considered), it is a vital contributor to the agrarian GDP and rural employment.

Objectives of the Study

The objectives of the study are:

- To examine the history and growth of tea industry in North Bengal.
- To examine the district-wise distribution of tea gardens in North Bengal analyse the extent of spatial variation and concentration across different regions.

- To assess the socio-economic significance of the tea industry.
- To identify major challenges and future potential of tea industry in North Bengal.
- To suggest measures for sustainable growth and development of the industry.

Research Methodology

The present study is descriptive in nature and is entirely based on secondary data collected from Tea Board of India, Annual Report, Research journals, books, and articles, Reports of tea associations and NGOs.

Tea Industry

- **Global Perspective:** Tea is cultivated in about 36 countries all over the world, but production is mainly concentrated in five countries like India, China, Sri Lanka, Kenya and Indonesia and jointly produced almost 80% of the world's tea (World Tea Markets Monthly, July 2001). While India, China and Sri Lanka have long dominated world production, the share of the African countries has increased dramatically over the last two decades. Within a period of 10 years spanning between 1986 and 1996 Kenyan production increased by 44% while Tanzanian production increased by 58%.

Tea is the **second most consumed beverage in the world after water** and a significant economic commodity that supports millions of producers, traders, exporters, and allied businesses. Global tea production was approximately **7.05–7.07 million tonnes** in 2024 (The 2025 Global Tea Report – Tea & Coffee Trade Journal)

Table 1: Major Tea Producing Countries Across the Globe

Country	Production (in tonnes)	% of Global Production Share
China	3.74 million	53%
India	1.28 – 1.30 million	18%
Kenya	0.60 million	8-9%
Sri Lanka	0.26 million	4%

Source: The 2025 Global Tea Report – Tea & Coffee Trade Journal.

From the table-1 it is observed that 53% of global output of tea came from China which has become the world's largest producer of tea followed by India with 18% of global output. Kenya and Sri Lanka got the third and fourth rank according to production in tonnes. Besides, Turkey, Vietnam, Indonesia, Bangladesh, Japan, Argentina, Uganda etc. produces smaller amount of tea.

Indian Scenario

India is the largest consumer and second largest producer of tea in the world. It is a highly labour-intensive industry and majority of the workers involved in this industry are women. (Rai Bidya, 2024). Since independence, tea production in India has overgrown 250 percent and accounts for 31 percent of global production of tea (Bhattacharya D. et al., 2008). During 2021-22 the annual production of tea in India stood at 1344.40 million kg and it exported 200.79 million kg of tea worth 5415.78 crores (68th Annual Report, Tea Board of India.). Tea industry generates employment for a significant section of the labour force domestically (63rd Annual Report, Tea Board of India). The bulk of Indian tea is produced in north-eastern states of Assam and West Bengal, along with the southern states of Tamil Nadu and Kerala. The tea production takes place in both large plantations and smaller gardens. Now tea is grown in fifteen states of India and among these Assam is the largest producer followed by West Bengal, Tamil Nadu, and Kerala (63rd Annual Report, Tea Board of India). Some of the non-traditional States like Arunachal Pradesh, Manipur, Nagaland, Orissa and Sikkim have taken up Tea cultivation. India's tea exports reached 254.67 million kg in 2024, placing India as a top 3 global exporter, generating a value of over ₹7,100 crore in 2024. (71st Annual Report, Tea Board of India, 2024-25).

History and Growth of Tea Industry in North Bengal

The tea industry in North Bengal occupies a significant position in India's plantation economy. Encouraged by their success in Assam, the British shifted about 1000 km away and selected the Darjeeling hills. *Most tea gardens in North Bengal were established during the colonial period (mid-19th to early 20th century), particularly in the Darjeeling, Terai, and Dooars regions.* The experimental planting of tea was started from 1941 in Darjeeling hills. The tangible date of tea industry may be taken as 1856-57. Reporting in 1876, Hunter stated that there were only two gardens as far back as 1886. These two gardens were Aluhari in Kurseong and Lebeng in Darjeeling. After the year 1956 more and more tea gardens were opened up and more and more company got registered. (Bhattacharya D. et al., 2008).

The first tea plantation in the Terai was started in 1862 by James White at Champta near Khaprail. The first tea garden in Jalpaiguri district was planted in Gazliduba in the year 1874 (Grinning's, 1911). Tea plantations in Darjeeling started around 1840s–1850s. Dooars expansion occurred late 19th century.

The cultivation and production of tea in North Bengal mainly concentrated in two districts Darjeeling and Jalpaiguri, and also sub-divided into three areas as Darjeeling, Terai and Dooars. Tea production in Terai region mainly cantered in Siliguri subdivision of Darjeeling district. Some small and medium range tea industries are also found in North Dinajpur. Dooars region mainly covers east part of Tista River which includes the whole of Jalpaiguri district of West Bengal and one tea garden of Cooch Behar district.

The tea industry is the essential backbone of the economy mainly in three districts of North Bengal which are Darjeeling, Jalpaiguri, and Alipurduar. Approximately 3-5 lakhs people are directly or indirectly involved in this industry in North Bengal. North Bengal produces nearly 280 million kg of tea (majorly from Dooars and Terai), which constitutes nearly 32.5% of the total, but with high-value Darjeeling tea, it contributes a higher percentage to the revenue.

Growth Structure

North Bengal has approximately 449 tea gardens (around 536 including all categories and small units), distributed across the Darjeeling Hills, Terai, and Dooars regions that are registered with Siliguri Tea Auction Centre. The relatively younger tea estates in the region include Chinchula Tea Estate, Raimatang Tea Estate, and Kalchini Tea Estate, each with an approximate age of 72 years. Among all tea estates, Samsing Tea Estate is the largest, covering an area of about 1256.60 hectares. Most tea gardens in the Dooars region are affiliated with the Dooars Branch of the Indian Tea Association (DBITA), whereas those in the Terai region are associated with the Terai Branch of the Indian Tea Association. District-wise registered tea gardens in North Bengal are exhibited in the following table:

District-wise distribution of registered Tea Gardens in North Bengal

Table 2

District	Number of Tea Gardens	% of Share	Category
Darjeeling	138	30.73	Hills & Terai
Kalimpong	05	1.11	Hills
Jalpaiguri	185	41.20	Dooara
Alipurduar	62	13.81	Dooars
Cooch Behar	11	2.45	Plains (Minor)
Uttar Dinajpur	48	10.69	Emerging belt
Total	449	100	----

Source: Ministry of Commerce and Industry, Government of India (2025)

On the basis of Table-2 some important descriptive statistical analyses are given below:

Table 3: Statistical analysis of district -wise tea gardens (Registered) in North Bengal

Statistical Measures	Output	Interpretation
No. of districts	06	Total districts taken in the study
Total no. of Tea Gardens	449	Registered Tea Gardens in North Bengal
Mean	74.33	On an average each district has 5 tea gardens.
Median (Sorted value- 5, 11, 48, 62, 138, 185)	55	Fifty percent of the districts have lower than 55 tea gardens.
Range	180	Very high disparity between districts
Standard Deviation (SD)	67.2	High variation in distribution across districts
Coefficient of Variation (CV)	89.8%	Very high relative variability, indicating strong inconsistency

From the study, it has been observed that the total number of registered tea gardens in North Bengal is 449, indicating that the industry is well developed in the region. However, the tea gardens are not evenly distributed, as most of them are concentrated in a few specific districts, particularly Jalpaiguri and Darjeeling. The average number of tea gardens per district is about 74.83, but the median value of 55 and a large range of 180 shows a big difference among districts. Besides high standard deviation (67.2) and coefficient of variation (89.8%) further confirm that there are strong variation and imbalance in their distribution. In the context of regions. In the context of location, the Dooars is the principal tea-producing area, which includes Jalpaiguri (185 gardens) and Alipurduar (62 gardens). Together, these

two districts account for more than half of the tea-producing regions of North Bengal. Most of the plantations here are large and labour-intensive, mainly producing CTC tea. On the other hand, Darjeeling (138 gardens) and Kalimpong (5 gardens) have rarer tea gardens, but they are worldwide famous for producing high-quality Darjeeling tea mainly for export. Uttar Dinajpur (48 gardens) and Cooch Behar (11 gardens) are new tea-growing regions mainly supported by small farmers and crop diversification. The tea industry in North Bengal shows two clear pictures : large plantation zones in core regions and small farmer-based expansion in other areas. This creates differences in productivity, labour conditions, and income. There are no registered tea gardens in Dakshin Dinajpur, which shows that tea cultivation is unevenly distributed.

Socio-Economic Impact of Tea Industry

The tea industry occupies a central position in the agrarian and industrial landscape of North Bengal, playing a crucial role in shaping the region's socio-economic development. It provides substantial direct and indirect employment opportunities, particularly for women workers, who constitute a significant proportion of the plantation labour force (Tea Board of India, 2023). The industry also contributes to infrastructural development in plantation areas by facilitating the establishment of roads, housing, schools, and healthcare services, thereby improving the overall quality of life in rural regions (International Labour Organization, 2015). Besides, the tea industry makes a notable contribution to India's GDP and foreign exchange earnings through exports, especially premium varieties such as Darjeeling Tea (Tea Board of India, 2022). The presence of tea plantations promotes rural industrialization by generating local employment and thereby reducing rural-to-urban migration (Food and Agriculture Organization, 2018). Moreover, the tea industry stimulates the growth of several associated sectors, including tourism sector, transportation sector, packaging, and trade, creating a multiplier effect on the regional economy (Ministry of Commerce and Industry, 2021). Thus, the tea industry not only functions as an economic driver but also as a catalyst for broader socio-economic transformation in North Bengal.

Challenges

Besides the positive outlook of North Bengal, tea industry is facing several structural and operational challenges that hinders its sustainability. Firstly, the adverse weather including temperature fluctuations and irregular rainfall heavily affected both yield and quality of tea, thereby undermining long-term productivity (Tea Board of India, 2023). Secondly, shutdown and abandonment of numerous tea gardens in North Bengal have deteriorated workers' socio-economic conditions. Increasing production costs (high wage rates, high fertilizers and energy costs, maintenance costs etc.) have significantly reduced profit margins for tea estates (Food and Agriculture Organization, 2022). Thirdly, increasing production costs (high wage rates, high fertilizers and energy costs, maintenance costs etc.) have significantly reduced profit margins for tea estates (Food and Agriculture Organization, 2022). Fourthly, the industry faces stiff competitions from dominant tea producing countries like Sri Lanka, Kenya, and Vietnam, along with fluctuations in global and domestic tea prices, which ultimately create financial instability (World Bank, 2022). Fifthly, the prevalence of old tea bushes, many of which have expired their economic life cycle, has led to declining productivity and quality (International Tea Committee, 2021). Last but not the list, lack of management, poor accessibility to institutional finance and rising debt have led to winding up of numerous tea estates, particularly in the Dooars and Terai regions.

Future potential of Tea Industry in North Bengal

Despite the several challenged faced by the industry, North Bengal has the potential for sustainable development. Firstly, the appropriate geographical location and favourable weather are suitable for producing high quality tea. Secondly, the growing global demand for Darjeeling tea enhances export potential and foreign exchange earnings. Besides, the industry plays a pivotal role by providing livelihood opportunities, especially for women and marginal workers, thereby contributing to rural development women empowerment (International Labour Organization, 2019). In recent years, tea tourism has emerged as a promising diversification strategy, where heritage tea bungalows, plantation visits, and factory tours are developed as niche tourism products. The integration of tea estates with homestays, hotels, and cultural experiences promotes inclusive regional development and aligns with sustainable tourism practices (World Tourism Organization, 2021).

Important Recommendations

In order to ensure the sustainable development of the tea industry in North Bengal, the following initiatives have been recommended: (a) Standardised wage structures, infrastructure, and healthcare facilities for plantation workers is necessary to improve their standard of living and productivity. The

plantation sector has historically faced challenges related to labour welfare, and better working conditions are directly linked to improved socio-economic outcomes (International Labour Organization, 2019). **(b)** Replantation and rejuvenation of old tea bushes should be needed to increase productivity and quality of tea. The existing literature showed that old tea plantations remarkably reduce yield and quality, making systematic replantation crucial for long-term sustainability **(Tea Board of India, 2022; Food and Agriculture Organization, 2018)**. **(c)** Institutional supports like credit accessibility, training programme and modern technology to small tea garden entrepreneur is essential for inclusive growth. Small tea growers contribute significantly to India's tea production, yet they often lack access to financial and technical resources **(Tea Board of India, 2023)** **(d)** Promotion of organic and specialty tea production should be needed to capture foreign markets and increase export earnings. The rising global demand for organic and high graded tea highlights the importance of value addition and sustainable cultivation practices (Food and Agriculture Organization, 2020). **(e)** Climate-resilient agricultural practices should be necessary to mitigate the negative impacts of climate change on tea cultivation. Climate variability has been identified as a main threat to tea productivity, requiring adaptive strategies such as sustainable land management and water conservation **(f)** Appropriate Marketing strategy, branding and Geographical Indication (GI)-based promotion of teas of North Bengal should be essential to enhance global competitiveness. GI tagging helps in protecting authenticity and securing premium prices in foreign markets **(World Intellectual Property Organization, 2017; Tea Board of India, 2022)**.

Conclusion

The tea industry in North Bengal remains a cornerstone of regional and national economy. Though the industry has rich cultural heritage and global reputation, it has met several serious challenges like uncertain climatic conditions, high production costs, old plantations, labour health and welfare issues, and growing global competition. Despite of these challenges, the industry possesses substantial growth potential driven by favourable agro-climatic conditions, expanding global demand for premium and organic teas, and emerging avenues such as tea tourism and market diversification. The findings of the study reveal a significant regional concentration of tea gardens in the Jalpaiguri and Darjeeling districts, along with significant inequalities in distribution and productivity. The sustainability of tea industry largely depends on efficient policy measures, technological upgradation, better labour conditions, and strategic marketing initiatives, including GI-based branding. Therefore, a collective effort among government, stakeholders, and local communities is essential to rejuvenate and develop the tea industry, ensuring its continued contribution to socio-economic development and rural livelihoods in North Bengal.

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