

"Green Hills And Golden Brews: The Tea Profile Of Kerala"

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Abstract

The plantation sector in Kerala, encompassing key crops like tea, coffee, and rubber, faces significant challenges that threaten its economic viability and the livelihoods of workers. High production costs, coupled with fluctuating market prices, have positioned Kerala as one of the highest-cost producers of plantation commodities in India. The cost of producing tea has escalated dramatically over the years, severely impacting profitability and leading to financial instability for many growers. Additionally, climate change has introduced further complications, resulting in unpredictable weather patterns, increased pest infestations, and damage to plantation infrastructure. These factors have not only diminished productivity but have also jeopardized the sustainability of the entire sector. To address these issues, a multifaceted approach is necessary. Implementing a support price mechanism can stabilize incomes for growers, while crop diversification can enhance revenue generation and reduce dependency on a single crop. Moreover, investing in skill development programs tailored to the needs of the plantation workforce is vital, enabling workers to adapt to value-added production processes. Strengthening worker welfare through the enforcement of the Plantation Labour Act and improving access to education and healthcare in remote plantation areas are also crucial. Collaborative efforts between government entities and plantation stakeholders can lead to enhanced infrastructure, better access to technology, and educational opportunities, ensuring a resilient and sustainable plantation sector that benefits both producers and local communities alike. By prioritizing these strategies, the plantation industry in Kerala can navigate its current challenges and pave the way for a more sustainable and prosperous future.

Keywords: plantation, livelihood, infrastructure, Economic viability

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I. Introduction

Kerala, often referred to as 'God's Own Country,' is also recognized as 'The Land of Plantations.' The state's favourable agro climatic conditions, characterized by plains, rolling terrains, and hills, along with ample rainfall and a humid climate, provide an ideal environment for agricultural cultivation. It is noteworthy that virtually every type of crop, including plantation varieties and spices, is either already grown or has the potential to thrive in the region.

Plantations possess several distinctive characteristics that set them apart from conventional agriculture. Plantation crops have extended gestation periods, typically ranging from 3 to 8 years before yielding economically viable produce. However, once this period is completed, these crops can remain productive for several decades, and in some cases, such as tea, even up to a century. Unlike short-duration agricultural crops like rice, wheat, and sugarcane, where farmers have the flexibility to switch to alternative crops based on market dynamics, plantation crops require long-term commitment due to the substantial investment involved and state-level regulations governing crop conversion.

As a result, investment and planning decisions for plantation crops are often more akin to those made in the manufacturing or industrial sectors rather than traditional agriculture. Plantations are large-scale, capital-intensive commercial ventures that employ a substantial labor force. As cash crops, they depend heavily on both export markets and domestic sales for revenue. The plantation sector is particularly important not only as a source of foreign exchange but also for its role in providing employment to millions of plantation workers, especially women. Additionally, plantations contribute significantly to carbon sequestration and the maintenance of ecological balance.

Kerala is traditionally regarded as the "plantation enclave" of India, and this characterization is largely accurate. Approximately 29 percent of the state's gross cropped area is dedicated to plantation crops, including tea, coffee, rubber, and cardamom.

Plantations play a crucial role in Kerala's economy, with tea, rubber, coffee, cardamom, and pepper being prominent crops in the state. Over one million growers are involved in the cultivation of these plantation crops. Kerala contributes to 37.2% of the total plantation area in the country, predominantly under rainfed conditions, and accounts for 29.4% of the nation's total plantation output.

The plantation industry is among the largest employers in Kerala, providing permanent employment to approximately 418,000 workers. The total value of plantation crops produced in the state is estimated at around ₹13,542 crores, including foreign exchange earnings of ₹2,717 crores, which constitute roughly 23.27% of India's total export value in this sector. While these figures may not appear significantly large from a national perspective, they are vital to the regional rural economy, where the plantation sector serves as a major source of livelihood. As Dr. M.S. Swaminathan aptly stated, "Kerala is truly the Plantation State of India."

Tea is a significant plantation crop in India, both in terms of production and revenue generation. In 2020, the total tea production in India was estimated at 1.258 million tonnes, a decline of 0.133 million tonnes due to the lockdown measures implemented during the pandemic. This decrease in domestic production was mainly attributed to a significant reduction in output from North India, whereas South Indian production remained relatively stable at around 0.222 million tonnes, representing approximately 18% of the nation's total output.

Kerala's contribution to tea production is relatively modest compared to other plantation crops, primarily due to the rapid growth in area and output in North India. The state produces about 0.067 million tonnes of tea, accounting for roughly 5.21% of India's total tea production, with 0.036 million hectares under tea cultivation, constituting 5.64% of the country's total tea-growing area. The yield, at 1,758 kg per hectare, is lower; however, considering that most tea bushes are over 75 years old, these figures indicate that the tea industry in Kerala adopts advanced agricultural practices that partially mitigate the structural challenges posed by the aging bushes.

In 2020, global tea production was estimated at 6.269 million tonnes, reflecting an increase of 1.078 million tonnes and indicating a significant expansion phase for the industry. After surpassing the 5 million tonnes milestone in 2013, world tea production added another billion kilograms within five years, highlighting an oversupply in the global market. China accounted for nearly half of the world's tea production, contributing approximately 47.6%, while India held a distant second place with a share of 20.1%.

The growth in tea production in countries such as China, Kenya, Vietnam, Indonesia, Sri Lanka, and India has been supported by an increase in the area under cultivation, the use of improved planting materials, advanced technology, and the adoption of integrated practices for tea cultivation. In India, the area dedicated to tea cultivation expanded from 438,000 hectares in 2000-01 to 636,000 hectares in 2020-21. This growth in area was primarily seen in the small grower segment, as opportunities for expansion in the large grower sector were limited.

The tea sector in Kerala is characterized by low land productivity, stagnating or declining yields, relatively high wage costs (which account for 65% of total production costs), and low price realization. These factors have significantly hindered the growth of the tea industry in the state. Additionally, the adverse effects of climate change have severely impacted crop prospects, affecting both livelihoods and quality of life.

An analysis of the sector's performance over the past decade reveals that year-on-year wage increases averaged 12%, while production costs rose by 6.3%. In contrast, price realization only increased by 3.7%. This disparity indicates that improvements in pricing have not kept pace with the rising costs of production and wages. Consequently, the organized tea sector's share of total production has fallen below 50%, while the unorganized sector appears to be in a relatively better position due to its cost advantage, as it is not required to bear welfare costs mandated by the Plantation Labour Act of 1951.

The organized sector must recognize the growing emphasis on Environmental, Social, and Governance (ESG) criteria, driven by social pressures from consumers and democratic activism. It is essential to highlight the sector's contributions in all three areas to exert pressure on intermediaries within the value chain to reduce prices. There is an urgent need for collective efforts to improve the quality of life for workers while ensuring the economic viability of the tea sector.

To ensure the immediate survival of the tea industry, the government should implement a Support Price Mechanism for teas sold below the cost of production, similar to the Rubber Production Incentive Scheme. Additionally, price support from Kerala government agencies purchasing tea at the Cochin auctions should be extended to the produce from the state's tea estates, ensuring prices are at least aligned with the cost of production.

The Kerala government should also consider establishing a modern warehousing and value-added packaging unit, akin to the Dubai Tea Trading Centre in Jebel Ali. This facility could be located in a Special

Economic Zone in Kochi, allowing tea estates in Kerala to enhance their products through blending, packaging, and branding for export. Such initiatives would not only improve the marketability of Kerala's teas but also contribute to increasing commodity prices by adding a premium value.

Tea has struggled to command remunerative prices, and high taxation, reduced profit margins, and low productivity—stemming from inadequate reinvestment in replanting old tea areas—have rendered the industry economically unviable. The decline in prices aligns closely with the introduction of soft drinks to the market in the 1980s. This situation has been exacerbated by the arrival of fruit juices in tetra packs, flavored teas, and other sugary beverages promoted by multinational corporations.

Given India's predominantly young population, the per capita consumption of tea may face significant challenges in the future. To address this, a generic promotional campaign should be implemented to boost per capita tea consumption and rekindle interest in this traditional beverage.

The growing involvement of state governments in plantation development is crucial, particularly as the role of the central government diminishes due to limited funding availability. In this context, the Assam government has introduced several schemes for the tea sector that complement the initiatives implemented by the Central Government and the Tea Board.

Age of Bushes - In Kerala, approximately 80 percent of tea bushes are over 50 years old. This aging bush population has led to lower yield levels in the state, which stand at 1,758 kg per hectare, compared to regional and national averages of 2,200 kg per hectare and 1,976 kg per hectare, respectively. Therefore, replanting must be viewed in a broader context. By improving field productivity, replanting can also create significantly more employment per unit area than older seedling fields. State intervention and support to promote this activity would have a multifaceted impact on the long-term sustainability of the tea industry.

Category	Below 50 Years	Above 50 Years	Total Area	Yield (Kg/Ha)
Kerala	7,662 hectares	29,271 hectares	36,933 hectares	1,758
Percentage of Total Bush	20.75%	79.25%		
South India	48,068 hectares	54,243 hectares	102,311 hectares	2,200
Percentage of Total Bush	46.98%	53.02%		
All India	247,108 hectares	195,665 hectares	442,773 hectares	1,976
Percentage of Total Bush	55.81%	44.19%		

Source: Tea Statistics 2002-03 (Estimated figures]

Frost Damage to Tea Bushes During Winter Months in Idukki - In the Idukki district of Kerala, tea bushes are consistently affected by frost during the winter months from December to February, with low-lying areas being the most severely impacted. Each year, extensive frost damage occurs, leading to tea bushes being charred or, in many instances, completely destroyed. This situation results in significant production losses for tea growers, as the recovery of the affected bushes can take several months. The substantial production decline due to frost damage poses a serious threat to the economic well-being of tea growers and estates. With more than a quarter of the year rendered unproductive, the economic viability of these tea gardens is under considerable strain. Therefore, there is a pressing need for a state-sponsored scheme that provides financial relief to tea plantations affected by frost, addressing both revenue and capital losses, and establishing a suitable insurance program to cover crop losses resulting from unpredictable weather conditions.

Special Welfare Scheme for Tea Workers - The Union Budget for 2021-22 allocated ₹1,000 crores exclusively for the welfare of women tea workers in Assam and West Bengal. As a welfare initiative, the Kerala government should advocate with the central government for the establishment of a similar scheme in the state. It is essential to emphasize that there should be no discrimination regarding welfare programs based on regional distinctions.

Auction Issues - There is a growing concern regarding the effectiveness of the current domestic marketing arrangements for Indian teas. Producers question whether the existing institutional framework allows them to achieve optimal unit values that reflect the underlying supply and demand conditions. This concern is highlighted by the discrepancies between auction prices and retail prices. Two significant observations arise in this context. First, while auction prices have declined, retail prices have not seen a corresponding drop and, at times, have even increased, indicating robust consumption rather than stagnation. Second, the substantial gap

between auction and retail prices suggests considerable potential for reallocation within the value chain. The cumulative costs beyond the farm gate do not account for more than a 50% increase, indicating excessive margins at the top of the value chain, which disadvantage the producer. This situation points to potential issues with price discovery at auctions, which may not accurately reflect the supply-demand dynamics due to a flawed set of rules that disrupt the fundamental economic balance between buyer and seller interests. Additionally, last-minute bidding congestion has resulted in higher bids going unregistered due to fixed active bidding times. This situation underscores the need for auction reforms. However, it is crucial to gather input from small tea growers before implementing any changes, as they rely on auctions for easy liquidity.

II. Issues In Plantation Sector

The plantation sector was granted exemptions from **land ceiling regulations** after thorough consideration of various socio-economic factors. These factors included job creation, the ability to provide essential education and healthcare in rural areas, foreign exchange earnings from exports and import substitution, and the benefits of having contiguous land to achieve economies of scale. However, the inflexible nature of this policy poses a challenge: if growers decide to diversify into alternative crops instead of maintaining the land as plantations, these exempted lands will be classified as 'surplus lands.' As a result, they would become subject to acquisition by the government, which discourages diversification into other crops.

The plantation sector in the state relies on the long-term cultivation of a single crop, which frequently results in reduced gross revenue per unit of cultivable land. This situation is exacerbated by market price fluctuations, as the sector's fortunes are tied to just one crop. To improve the economic sustainability of plantations over the long term, it is essential to enhance revenue generation from each unit of land without changing the fundamental nature of the plantations.

Diversification of Crops in Plantations - The proposed changes must be understood in the context of plantation crop growers who are trapped in a cycle of price volatility and ongoing financial hardship. This situation underscores the need to explore ways to increase income per unit area through optimal resource utilization. A long-term strategy should focus on enhancing the income-generating potential of growers in a manner that is both ecologically and economically sustainable, while preserving the fundamental structure of plantations. Current production levels can be maintained or even improved through replanting and the implementation of precision farming techniques across a significant portion of existing plantations. Additionally, the remaining areas could be utilized for other agro-based cultivations, processing and value addition, plantation-specific ecotourism, agroforestry, and renewable energy generation. Such transformations could boost employment opportunities in the plantation sector and contribute to the state's revenue.

Agroforestry practices should be allowed in Kerala's plantations in a sustainable way to enhance the revenue streams for these plantations and improve land utilization. Since plantation lands often border forests, they provide an ideal environment for organized agroforestry activities. The National Forest Policy of 1998 aims to increase forest or tree cover to 33%, up from the current level of less than 25%. This initiative is also significant in light of India's annual timber imports, which reach around 30 lakh cubic meters, resulting in an estimated import bill of approximately Rs 45,000 crore for wood and wood products. Additionally, under the Paris Agreement of 2015, India is committed to establishing a carbon sink equivalent to 2.5 to 3.0 billion tons of CO₂ by 2030. Therefore, it is crucial to expand tree cover on non-forest lands, including privately owned land, to achieve ecological, economic, and environmental benefits.

Climate change has significantly impacted the plantation sector in various ways. The region has experienced severe weather events, including heavy rainfall, prolonged droughts, high winds, and hailstorms over recent years. The delicate ecosystem of the Western Ghats is increasingly vulnerable to these extreme weather conditions linked to climate change. Such fluctuations have not only disrupted the foundation of the plantation industry but have also jeopardized the livelihoods of surrounding communities. Compensating for these losses on a meaningful scale may be nearly impossible.

Moreover, climate change has adversely affected productivity and production levels, leading to a rise in pests and diseases that have damaged plantations and their infrastructure. The devastating consequences of climate change and the resulting loss of biodiversity can no longer be overlooked. It is becoming increasingly clear that enhancing the biodiversity of the land and bolstering the resilience of our ecosystems is crucial.

In this context, the government should direct the Kerala State Forest Research Institute to conduct research tailored to the plantation sector in Kerala. This research should focus on the ecosystem services offered by plantations and the effects of climate change on these services. Particular attention must be given to the impact of climate change on numerous smallholders and their adaptation needs.

Cost of Production - Kerala has become one of the highest-cost producers of plantation commodities due to elevated wage levels, high input expenses, and low productivity of both land and labor. This situation, combined with a persistent drop in market prices that often fall below production costs, has led to an increasingly precarious financial position for plantations. For instance, the overall cost of producing tea rose from ₹44 per kilogram in 1995 to around ₹141 per kilogram by 2020, reflecting an increase of 220.5%.

South India tea production

Year	Cost of Production (COP) per kg	Percentage Increase Compared to 1995
1995	₹44	0.0%
2000	₹58	31.8%
2005	₹66	50.0%
2010	₹80	81.8%
2017	₹136	209.1%
2020	₹141	220.5%

Labour Wages in Indian States – Tea

Year	Tamil Nadu	Kerala	Karnataka	Assam	West Bengal
1980	8.20	9.28	7.10	7.06	8.10
1985	15.90	15.63	10.33	10.40	11.25
1990	24.35	23.86	17.55	15.30	16.50
1995	39.88	44.71	32.33	23.60	N.A
2000	74.22	72.46	58.16	37.60	37.80
2005	77.53	78.10	70.13	48.50	48.40
2010	125.76	130.65	114.72	66.50	62.50
2015	223.58	266.17	243.07	115.00	122.50
2017	265.76	316.04	274.49	137.00	132.50
2018	306.87	325.79	314.11	167.00	150.00
2019	317.41	387.89	322.75	167.00	150.00
2020	331.34	399.77	324.62	167.00	176.00
2021*	347.57	414.68	357.16	205.00	202.00

As the plantation sector transitions towards value-added production, the demand for skilled labor will significantly increase. Given that this sector is the largest contributor to employment in both the public and private spheres, it is crucial to implement skill development programs tailored to the specific needs of the plantation industry. Regular training and re-training initiatives should be conducted through the Agricultural Skill Council of India (ASCI) for tea, coffee, and spices, as well as the Rubber Skill Development Council (RSDC) for the rubber sector.

Labour Welfare - The Plantation Labour Act (PLA) of 1951 is a crucial piece of legislation designed to promote the social welfare of plantation workers. This Act applies to all plantations that cover an area of 5 hectares or more and employ 15 or more individuals. It mandates essential provisions, including adequate housing, education, and healthcare facilities. Specifically, the Act requires plantations to provide medical services, drinking water, sanitation, and sufficient water supply in labor residences. Additional welfare measures include the establishment of canteens, crèches, recreational facilities, and primary schools for children. While the government has largely assumed responsibility for educational provisions in plantations, challenges remain, particularly concerning children's access to mobile and internet connectivity in remote plantation areas. Addressing this issue requires a collaborative effort between the government and plantation owners, as well as alignment with the Human Resource Development (HRD) schemes of the respective boards.

III. Conclusion

The plantation sector in Kerala faces significant challenges that require a comprehensive and strategic response to secure its future. The escalating production costs, the impact of climate change, and market

volatility have placed considerable strain on the industry's sustainability. To enhance the economic viability of plantations, it is imperative to introduce effective measures such as a support price mechanism, promote crop diversification, and establish skill development initiatives tailored to the needs of the workforce. Furthermore, improving the welfare of plantation workers through enhanced legislative frameworks, such as the Plantation Labour Act, is essential for fostering a supportive work environment that enhances productivity and overall well-being. The integration of agroforestry practices and a shift toward value-added production can also open new revenue avenues while supporting ecological balance.

Collaboration between governmental entities and plantation stakeholders is vital for addressing critical issues, including infrastructure and access to education and technology, particularly in remote regions. This partnership will help ensure that the children of plantation workers have the necessary resources for their development. In summary, the path forward for the plantation sector lies in adaptive strategies that not only focus on economic resilience but also prioritize social welfare. By embracing these changes, the industry can build a sustainable future that benefits both producers and the communities reliant on this vital sector.

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