

From Field to Flavor: A Comparison of Work-Life in Kerala's Tea, Coffee, And Cardamom Plantations

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Abstract: The plantation industry in Kerala plays a highly significant role in the social and economic development of the Indian economy, particularly in southern states like Kerala, Tamil Nadu, and Karnataka. It has been widely recognized for its contribution to economic growth, employment generation, and foreign exchange earnings. As a vibrant sector within the state's agricultural economy, it holds great potential and plays a crucial role in Kerala's GDP. The plantation sector, with its highly labor-intensive nature, remains a vital source of livelihood for millions, especially in rural areas. This paper presents a comparative analysis of the work-life of plantation workers across different plantations, including tea, coffee, and cardamom plantations in Kerala. It focuses on aspects such as employment opportunities, labor-intensive conditions, and socio-economic contributions. By examining the distinctions in work-life across these plantations, this study aims to highlight the unique challenges and opportunities faced by plantation workers in different agricultural contexts. Additionally, it contributes to a deeper understanding of the interplay between micro-level labor dynamics and macroeconomic shifts within the broader framework of India's transformative economic growth. The findings of this study can help inform policy and development strategies aimed at fostering sustainable growth and equitable development in the region.

Keywords: Plantation, Kerala, Tea, Coffee, Cardamon, Work-Life, Rural Development.

Type: Research paper



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1. Introduction

Agriculture plays a vital role in the Indian economy. The agricultural roots run deep into the Indian soil, nourishing millions and shaping the future of our nation. Over the past few years, though its contribution to the GDP has dipped, still the sector stands as the major contributor to the life and sustenance of millions. According to the advance estimates of National income released by the Ministry of Statistics and Programme Implementation (MoSPI), the share of agriculture and allied sectors in India's GDP in the 2022-23 period slips down to 15% from 19% in the previous period (2021-22). This declining trend in India's primary

sector is mainly due to the faster growth of the industrial and service sectors. Even though the figures show a declining trend in GDP contribution, the sector still stands as the most vital component due to its contribution to the life of a significant number of workforces. The sector remains the largest source of livelihood for millions of populations, especially in rural areas. The plantation sector is an important segment in India's agricultural field. Plantation crops are a part of agriculture and belong to horticultural crops. Though there is a shrinking of the overall agricultural sector's footprint in India's GDP, the plantation sector stands straight with a firm root deeply fixed in its role as a significant contributor to the economic and social growth and development of the Indian economy. The plantation sector has a unique importance and position in India's economy. It is a major economic contributor, generating valuable foreign exchange through the exports of crops like tea, coffee, cardamom, rubber, spices, etc., specifically in states like Kerala, Tamil Nadu, and Karnataka. The growth and cultivation of these plantation crops require areas conducive to their growth and are largely influenced by rainfall, altitude, and climatic conditions. The state of Kerala is highly notable for its plantation sector with a long tradition in the cultivation of plantation crops. It provides an ample source of growing conditions and requirements for the growth of plantation crops. Crops like tea, coffee, cardamom, and rubber are mostly cultivated in Kerala. These crops which are produced for domestic as well as export purposes, contribute a major part of the state's domestic product. Besides the economic contribution, the plantation sector plays a major role in ensuring livelihood and employment opportunities to a large population, mainly in hilly and arid regions with very less work opportunities, thereby contributing to the socio-economic development of these regions. The major attractive specialty of the plantation sector is its labor-intensive nature. Both production and processing of plantation crops are highly labor intensive, giving enough opportunities to a large section of the population, especially the womenfolk. Being a highly labor-intensive sector, it needs the employment of labor throughout the year the products of which are usually consumed after processing. Plantation crops fall into the category of plantation agriculture where a single crop is raised in a large area. The total number of people engaged directly in plantation industries includes over two million and if one were to take note of the sprinkler effect of people who are peripherally connected to the sector and agencies that inter-act, the total number of people engaged in the sector would be more than three times the number directly employed. The increasing significance of the plantation sector compels an inevitable prominence in any analysis of the regional development of the state.

The plantation sector, as already mentioned, is a highly labor-intensive sector, with minimum skilled know-how. The plantation owners met this high demand for labor from subsistence economies. A large number of laborers in Kerala in this sector are migrant workers from nearby states, especially from Tamil Nadu. Also, family labor is promoted and female workers are in high demand in this sector. Housing facilities and some incentives are provided to these laborers as per the Plantation Labor Act. These laborers, poor and unskilled, are under the control of the plantation owners and these planters fix their wages at a very low level. These poor laborers can be easily exploited and lived as the slaves of the employers in the initial periods. Over the years, several laws, rules, and regulations came into being from time to time to improve the living

conditions of the plantation laborers. Adding to the momentum, trade unions emerged and became a strong platform to discuss and decide issues related to labor in the plantation sector. With all these, the conditions of plantation laborers improved, but they are still an underdeveloped and highly exploited category in society. The general living conditions of these plantation laborers have always been pathetic, mainly due to inadequate wages.

In this situation, it is high time that such sad living conditions of these plantation workers are studied, and proper suggestions made for their development. Also, there is a need for immediate intervention from the part of the government, to settle the problems affecting the plantation industry in Kerala.

2. Literature Review

Knowledge of eco-friendly alternatives is fundamental to raising awareness. In contrast to regular disposable pads, traditional reusable sanitary items and biodegradable options significantly reduce environmental impact (Sommer et al., 2017).

Plantation crops constitute a major portion of the total cropped area in Kerala. In India, studies associated with the plantations commenced in the early 1930s. The present situation of plantation crops emerged in India after a series of transitions. The literature review is made by taking into consideration the historical background of the plantation sector, the national as well as the international significance and economic importance of the sector to the economy, and also the physical quality of life and living conditions of plantation laborers, giving due significance to the women labors in particular.

Griffiths (1967) in his work has made a detailed study of the historical evolution of tea plantations in South India. According to the study, the plantation sector emerged in India in the early 1830s, when the East India Company was looking for some alternative sources for getting tea to Europe. A detailed explanation regarding the initiation of tea cultivation in India, along with the problems faced by the laborers as well as the planters in the early period were made in the study. It also describes the association of planters, trade union movements, etc., and also uses the available information on the production, marketing, and expansion of tea exports especially to Europe. He also discusses in detail the labor conditions and recruitment processes. However, his work fails to investigate management styles, functions, and the conditions of life in working-class colonies.

Nair (2006) narrates the emergence of plantations in the state. The initiation of the plantation industry dates back to 1859, with the formulation of the first coir factory in Alappuzha by Darragh, a European. Even before this, it was reported that the East India Company, in 1779 had set up a large spice estate in Ancharakandy in Malabar. The whole study describes the evolution and spread of the plantation industry in Kerala and gives a detailed picture of the historical background of the sector.

Chaudhari (1978) analyses the growth of the tea industry with special reference to the price of land and labor in India. The low price of land and labor in India in the plantation sector played a pivotal role in the growth of the Indian Tea Industry. Originally, tea plantations were started in areas that were unsuitable for the cultivation of other crops and where land was available

inexpensively. Land for the plantation crops was available at low costs and as a result, extensive cultivation was practiced instead of intensive cultivation.

Gupta (1992) describes the emergence and spread of plantations and plantation labor in Colonial India. The study analyses different types of capitalist plantations in colonial India. The labor system and the class structure between owners or supervisors and laborers are discussed in detail. The different features of the colonial plantation system are also described in the study.

Raman (2010) discusses the historical background of the life and sustenance of plantation laborers in India, explaining the working and living conditions and also the difficulties and problems of plantation workers in South India. The work emphasizes the colonial and post-colonial plantation systems in South India. The study also points to the common features as well as the differences among the laborers in various plantations. The differences concerning regions, languages, customs, and culture and at the same time the common features in the social origin of these labors were observed. They exist as the most downtrodden sections of the agrarian society, both economically and socially.

Uma Devi (1984) sketches the historical aspects of the plantation sector in Kerala, analyzing the economic significance and the area and production of plantation crops in Kerala. The study is divided into two sections and the first section deals with the historical background of the plantations especially in the Travancore region during the 1860-1947 period. The second section focuses on the quantitative techniques and also explains the impact of plantations in Kerala from 1947 onwards. The study shows the poor situations of the laborers in the sector, with low wages and more work. It was also found that the benefits of the fruits of growth through plantations are distributed unequally between various castes and other religious groups. Increasing social tensions and disharmony that followed stood in the way of the economic development of Travancore.

Tharian (1982) gives an overview of the crises in tea plantations in general and focuses especially on the South Indian tea industry. The issues mainly center around problems like cost appreciation and deteriorating or standing prices. Consequently, the attempt of the individual producer to improve his output levels to keep up with the cost increases has been abandoned by the declining or stagnant prices and further increased costs. The situation becomes more critical due to the fall in auction prices and stiff competition from the part of rival producers with comparatively low costs of production.

Varghese (2007) looks upon cardamom cultivation in Kerala and explains the economics of cardamom cultivation in Kerala, focusing on economic factors like costs, returns, and profitability. The study mainly tries to evaluate the cost of production as well as the profitability of cardamom cultivation. The study concentrates specifically on the role and importance of cardamom cultivation in Kerala, making a detailed analysis of the production of the crop.

Tiffen and Mortimore (1990) outline the significance of the plantation industry in the economic development of a nation and focus on the production of plantation crops among the smallholders. The effects of the fluctuating socio-political and economic environment of the agriculture sector in third-world countries demand the need for the study. The impact of the activities of transnational corporations (TNCs) on the plantation sector was explained and brought to notice. The deep involvement of TNCs in the production, processing,

and marketing of plantation crops and their effects on the historic plantation sector was also described.

Thomas (1979) analyses the economics of the rubber plantation industry in Kerala. The study mainly focuses on the demand and supply position of the natural rubber industry as well as the cost of production by considering the large estates and the smallholdings as separate units. After discussing the importance and growth of the industry, various development schemes were also explained. The role of the Rubber Board and Rubber Marketing Societies in the development of the industry has also been examined. The study concludes with the findings that estates enjoy comparatively higher rates of profits than smallholdings. Holdings differ in the area and many families have to rely solely on the holding for their livelihood.

Abbas Darvishi (2014) in his study explores the impact of trade liberalization on the production and marketing of coffee and tea in India. In the framework of free trade, the study attempted to analyze the impact of trade liberalization on various market players, especially producers, traders, and consumers of coffee and tea. The analysis shows that the variability in prices and exports, as well as the retail margins, has increased after liberalization. The study mainly focuses on the trade-related aspects of plantation crops.

Baak (1999) explains a detailed account of the reasons for the migration of workers to plantation areas. He identifies poverty as the main driver of huge migration to the plantation sector. Most of the plantation workers came from areas where poverty was very extensive or from areas where many of them were indebted to local money lenders. For the workers, the movement to plantations for some jobs was more of an escape from abject poverty, indebtedness, and exploitation from upper caste people as most of them belonged to the lower castes in the caste hierarchy.

Sarkar et al. (1988) made a detailed study regarding the wages, employment, and living standards of tea plantation workers in the Eastern Himalayas. He narrates that the permanent settlement of workers in and around the plantations is mainly because of the attractive feature of the recruitment of workers in this sector. In the early stages, the recruitment of workers was family-based, mainly due to reasons including cheap labor due to permanent settlement in the plantations and also family migration which ensures a continuous supply of labor in the future.

Hayami and Damodaran (2004) portray the deep crises of the plantation industry in South India, focusing mainly on tea plantations in South India. Various social and economic crises affecting the small plantation growers were discussed in the work. The article argues for a major restructuring of the plantation sector through labor empowerment. The present study is also concentrating particularly on the crises faced by the plantation sector and the laborers engaged in the sector.

Raj (2019) explains the women's strike in south Indian tea plantations against a big plantation company and dominant trade unions in Munnar. It examines the reasons that led to the strike and also the implications for the workers. It also points towards the wider socio-economic relations in the tea belt. The study also pictures the exploitative and corrupt nature of trade unions in addition to exploitative production levels and the inadequate implementation of

welfare measures. The article also tries to portray the inequality, injustice, and humiliation suffered by the laborers in the industry.

3. Work-Life of Plantation Labors

The work-life of plantation workers in different plantations is equally important as their living conditions since only a good work-life can provide a well living situation. The different plantations of tea, coffee, and cardamom in the state of Kerala were identified and the working conditions of the laborers in these plantations were analyzed. Utilizing a multistage stratified random sampling technique, samples from each plantation are selected for analysis. The sample taken for the study is selected using the Krejcie & Morgan table and the total sample taken is 384, which includes 128 samples from each of the three plantations taken for analysis.

The major determinants of work-life include:

- Income: To understand the work-life of laborers in the Plantation sector, income is a major factor. There are many determinants of income, which include age, gender, hours of work per day, number of workdays in a week, years of service in the job, etc., and the influence of these major determinants of income in the work-life of laborers is analyzed.
- Daily wage: Though monthly salary is already taken for analysis; it is also important to consider daily wages too. Many factors influence the daily wage of a laborer like age, gender, the number of breaks per day, and hours of work per day.

3.1. Factors Influencing Income and Daily Wage: A Comparative Analysis

A comparative analysis of the factors influencing income and daily wage of the three plantations is made in the following tables. Variables like gender, age, hours of work per day, number of years of service, and also the number of works days per week are considered explanatory variables for income analysis, and variables including gender, age, hours of work per day, and number of breaks per day are considered as explanatory variables for daily wage analysis concerning the three plantations.

Table 1: Income: Comparative analysis of three plantations

	Tea	Coffee	Cardamom
Constant	6.25050*** (0.282970)	5.75527*** (0.140177)	5.66704*** (0.143673)
A (age)	-0.103561 (0.0690151)	0.0549162* (0.0278495)	0.0532327 (0.0332512)
G (gender) (Female)	0.0534329*** (0.0197860)	0.0109477 (0.0114497)	0.00767225 (0.0107162)
HW/day (hours of work per day)	-0.0675805*** (0.0195903)	-0.105198*** (0.0326769)	0.0361114** (0.0140466)
Y_{ser} (number of years of service)	-0.126735** (0.0497712)	-0.0260322 (0.0193683)	-0.0679076*** (0.0223085)
NWD/week (no. of work days per week)	0.0833955*** (0.0295746)	0.00657897 (0.0158076)	-0.0310157** (0.0133156)
R-squared	0.294129	0.234496	0.082125
Adjusted R-squared	0.257301	0.196537	0.067281

F(3, 374)	7.986556	6.177635	5.532431
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Source: Primary data analysis

In the case of tea and coffee, there is a negative relation between hours of work per day and present salary level as shown in Table 1. A change in daily hours of work leads to a fall in the income of 6 percent in tea and 10 percent in coffee. In the case of cardamom, with a change in daily hours of work, the income increases by 3 percent. The number of years of service and the present salary level also shows a negative relationship with a decline of around 12 percent, 2 percent, and 6 percent in present salary with an increase in years of service or experience in the case of tea, coffee, and cardamom respectively. Again, the number of workdays in a week positively influences the income level of laborers in the tea and coffee sector, with an increase of 8 percent and 0.6 percent respectively, while this is negative in the case of cardamom, showing a fall in income by 3 percent with the number of workdays in a week. The model also shows that the ability of explanatory variables to predict the salary level is low, which is 25 percent in the case of tea, only 1 percent in the case of coffee, and 6 percent in the case of cardamom.

Table 2: Daily Wage: Comparative analysis of three plantations

	Tea	Coffee	Cardamom
Constant	7.83909*** (0.591287)	8.63558*** (0.0893018)	8.45195*** (0.161409)
G (gender) (Female)	0.0620870** (0.0300076)	-0.0353153*** (0.00755514)	-0.00551549
A (age)	0.168121 (0.115797)	0.0237987 (0.0178222)	0.0737207** (0.0351232)
HW/day (hours of work per day)	-0.0714482** (0.0326483)	-0.0348796 (0.0218030)	0.0585335*** (0.0148773)
NB/day (no. of breaks per day)	0.106993*** (0.0396514)	0.119072*** (0.00594778)	0.0551682*** (0.00903750)
R-squared	0.087563	0.808863	0.121669
Adjusted R-squared	0.048234	0.801029	0.109863
F (3, 374)	2.226421	103.2571	10.30609

Source: Primary data analysis

It can be seen from Table 2 that, except for tea, there is a decline in daily wage for females compared to males by 3 percent and 0.5 percent in the case of coffee and cardamom respectively. In the case of tea, it seems to be positively influenced by 6 percent. A change in daily hours of work shows a negative picture of tea and coffee and a positive influence on cardamom. It leads to a decline in the average daily wage by 7 percent in tea and 3 percent in coffee, while it increases the average daily wage by 5 percent in the case of cardamom. The changes in the number of breaks per day show an increase in the average daily wage level by 10 percent, 11 percent, and 5 percent in tea, coffee, and cardamom plantations respectively. Overall, the model shows that the ability of explanatory variables to predict the average daily wage is only 4 percent for tea, 80 percent for coffee, and 10 percent for cardamom.

3.2. Work Satisfaction and Its Determinants Among Plantation Workers

Work satisfaction among plantation laborers is an unavoidable component that has to be evaluated while examining their work-life conditions. The satisfaction level is analyzed, based on determinants like age, native place, hours of work per day, type of plantation, number of breaks per day, average monthly salary, and also the bonus received.

Table 3: Multinomial logistic regression result of work satisfaction

	Dissatisfaction	Satisfaction
Intercept	-2.67631 (12.02685)	-85.01882 (77.06791)
ln A (age)	-0.1513095 (6.766111)	5.8770523* (2.492239)
NP (native place) (Tamil Nadu)	20.734334* (12.026869)	2.984718* (0.9480161)
ln HW/day	-37.676232** (19.360247)	1.278513 (1.511583)
P (Plantation Coffee)	-1.020533*** (5.11E-08)	-11.371137*** (6.55E-03)
P (Tea)	-0.2271128 (12.02685)	39.8246373 (36.72487)
ln NB/day (no.of breaks per day)	-11.82799*** (0.0003135)	1.32207* (0.62742726)
ln AMS (average monthly salary)	4.501521 (7.437905)	5.029309* (2.093585)
B (bonus received) (YES)	0.1489907 (12.02685)	-29.968729 (36.72487)

Source: Primary data analysis

Table 3 shows the factors determining the work satisfaction level of the respondents in the plantation sectors. The satisfaction ranges from a high level of satisfaction to 'dissatisfaction'. It is visible that compared to those who agree with the statement (I am satisfied with the present job), there is an increased chance of disagreement from the migrant laborers. This is statistically significant at the 10 percent level of significance. With an increase in hours of work per day, there seems to be an increased chance of dissatisfaction.

4. Conclusion

The plantation industry is one of the leading segments in the agriculture sector of the Indian economy. Its contribution to the growth, development, employment provisions as well as export earnings has always been noteworthy. The state has all the potential and features necessary for the growth and production of almost all the plantation crops like tea, coffee, cardamom, pepper, rubber, etc. In the present day with most modern development initiatives, a well-planned technological advancement can improve the productivity and sustainability in the sector.

Despite the social and economic development of the economy as well as the welfare of laborers, the plantation sector has much more to do with nature and the ecosystem. It ensures a sustainable mode of agriculture practices by promoting soil conservation and biodiversity through its proper management.

While the overall share of the agriculture sector seems to be declining, the plantation sector can still contribute to its growth and development with its focus on high-value crops, exports, and sustainability. Thus, the plantation sector plays a distinct role in specific regions, and states and holds potential for future growth and development of the Indian economy.

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