

Livelihood Vulnerability and Socio-Economic Conditions of Tea Plantation Workers in Idukki District, Kerala: Evidence from a Pilot Study

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Abstract

The tea plantation sector has historically played a vital role in Kerala's economy by generating employment, supporting export earnings, and sustaining the livelihoods of plantation communities. Despite its significance, plantation labour continues to face structural vulnerabilities such as low wages, limited asset ownership, restricted livelihood diversification, and dependence on estate management for basic services. This study examines the socio-economic conditions and livelihood challenges of tea plantation workers in Idukki district, Kerala, based on a pilot survey of 30 households in Devikulam and Peerumade taluks. Primary data were collected using a structured interview schedule. Descriptive statistics and a chi-square test were used to analyse income, work experience, housing conditions, land ownership, and satisfaction with living conditions. The findings reveal widespread dissatisfaction with living standards irrespective of income levels, indicating that livelihood insecurity is driven by structural constraints rather than wage levels alone. The study also documents generational shifts away from plantation employment, labour shortages, and increasing dependence on migrant workers. The paper contributes micro-level empirical evidence to plantation labour literature and offers policy insights for improving livelihood sustainability in Kerala's tea sector.

Keywords

Tea plantations; livelihood vulnerability; plantation labour; Idukki district; Kerala; pilot study

I. Introduction

The plantation sector occupies a distinctive position in India's agrarian and labour landscape. Unlike peasant agriculture, plantation production is characterised by wage labour, employer-controlled housing, and institutionalised welfare systems. Among plantation crops, tea has emerged as one of the most significant contributors to employment and export earnings. Kerala, along with Assam and West Bengal, forms one of the major tea-producing regions in India, with plantations concentrated in the high-range districts of Idukki and Wayanad.

Tea plantations in Kerala have historically depended on a settled labour force residing within estate premises. These plantation communities are socially and economically distinct, shaped by historical migration, linguistic diversity, and long-term dependence on estate management. Despite legislative interventions such as the Plantation Labour Act, 1951, which mandates provision of housing, healthcare, and education, several studies have highlighted persistent gaps between statutory provisions and actual living conditions.

In recent decades, the tea sector has undergone significant transformations due to global market competition, price volatility, rising input costs, and changing labour relations. Estate management practices have increasingly focused on cost reduction and productivity enhancement, often through mechanisation and contractualisation of labour. These changes have had profound implications for plantation workers' livelihoods, particularly in terms of job security, income stability, and welfare access.

Idukki district constitutes the core of Kerala's tea plantation economy, with extensive estates located primarily in the high-range taluks of Devikulam and Peerumade. The region's favourable agro-climatic conditions, including high altitude, moderate temperature, and well-distributed rainfall, have historically supported large-scale tea cultivation. Tea plantations in Idukki are characterised by estate-based production systems, where land ownership, processing units, housing, and labour welfare facilities are largely controlled by plantation companies. Prominent estates in the district include those managed by Kannan Devan Hills Plantation

(KDHP), Harrison Malayalam Plantations, and a few smaller private operators. These estates employ a substantial workforce, predominantly women engaged in leaf plucking activities, while men are involved in factory work and ancillary tasks. Despite their economic significance, Idukki's tea plantations face challenges such as labour shortages, ageing workforce, increasing dependence on migrant labour, and rising production costs. The following table presents an overview of major tea estates and factories operating in Idukki district, along with ownership patterns and key characteristics.

No.	Tea Board factory name (as listed)	Estate name	Owner / Operating company	District	Factory type
1	Madupatty Tea Factory	Madupatty Estate	Kanan Devan Hills Plantations (KDHP)	Idukki	Estate factory / CTC
2	Lockhart Tea Factory	Lockhart Estate	Kanan Devan Hills Plantations (KDHP)	Idukki	Estate factory
3	Pullivasal Tea Factory	Pullivasal Estate	Kanan Devan Hills Plantations (KDHP)	Idukki	Estate factory
4	Pullikkanam Tea Factory	Pullikkanam Estate	Harrisons Malayalam Ltd.	Idukki (Peermade)	Estate factory / BLF operator
5	Pattumala Tea Factory	Pattumala Estate	Harrisons Malayalam Ltd.	Idukki	Estate factory
6	Wallardie Tea Factory	Wallardie Estate	Harrisons Malayalam Ltd.	Idukki	Estate factory
7	Penshurst / Penshurst Factory	Penshurst Estate	Harrisons Malayalam Ltd. (or estate management)	Idukki	Estate factory
8	Granby Factory	Granby Estate	POABS Enterprises / Granby Plantations	Idukki	Estate factory
9	Stagbrook Factory	Stagbrook Estate	Private estate / management	Idukki	Estate factory
10	Semnivall / Seminivalley Factory	Seminivalley Estate	Private	Idukki	Estate factory
11	Red Land BLF	Red Land	Independent BLF operator	Idukki	Bulk Leaf Factory (BLF)
12	Pattumudy BLF	Pattumudy	Independent / BLF operator	Idukki	BLF
13	Malanadu Cooperative BLF	Malanadu	Small Growers Cooperative	Idukki	BLF / Coop
14	Wayanad Green Tea Producer Co. Ltd (Wayanad Green)	Multiple small estates	Wayanad Green Tea Producer Company	Wayanad	Small grower processing / factory
15	Connemara Tea Factory	Connemara Estate	Private / estate owner	Wayanad / Idukki (depends on estate)	Estate factory
16	Haileyburia Tea Estates Ltd (factory units)	Haileyburia Estate	Haileyburia Tea Estates Ltd.	Wayanad / Idukki	Estate factory
17	Kallar / Kallar Estate factory	Kallar Estate	Kanan Devan Hills / KDHP (estate unit)	Idukki	Estate factory / tourist facility
18	Old Pampanar Tea Factory	Pampanar Estate	Private estate management	Idukki	Estate factory
19	Other Wayanad factories (examples: WAM Tea Factory, Elstone, Karak)	Various estates	Private / corporate / coops	Wayanad	Estate / small factory

20	Plantation Corporation of Kerala — various units (if any tea interest)	PCK-managed units	Plantation Corporation of Kerala (PCK)	Multiple (statewide)	Corporation plantations (mainly rubber/oil palm)
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The COVID-19 pandemic further exposed the vulnerabilities of plantation communities. Estate closures, mobility restrictions, and inadequate healthcare infrastructure disproportionately affected workers residing within plantations. This study examines these issues through a micro-level analysis of tea plantation workers in Idukki district, providing pilot evidence on livelihood vulnerability, income adequacy, and perceived well-being.

II. Review of Literature

The plantation economy in India has been extensively analysed in terms of colonial labour regimes, migration, and employer-controlled welfare systems. Early studies documented coercive recruitment practices and rigid labour discipline, while post-independence research focused on labour legislation and trade unionism. Despite reforms, scholars argue that plantation workers continue to experience structural dependency and limited occupational mobility.

Studies on tea plantations highlight persistent issues related to wage inadequacy, housing congestion, and restricted livelihood diversification. Research on Kerala’s tea sector points to relatively better social indicators compared to other plantation regions, yet economic vulnerability remains widespread. Gender studies emphasise the central role of women in leaf plucking and the dual burden of paid and unpaid work.

Recent literature documents labour shortages in plantation regions due to educational mobility and occupational diversification among younger generations. This has led to increased reliance on migrant labour, often employed without access to welfare benefits. The COVID-19 pandemic has added a new dimension to plantation vulnerability, underscoring the limitations of estate-based welfare systems. However, there remains a lack of micro-level empirical studies focusing on livelihood vulnerability in Kerala’s high-range districts, particularly during periods of crisis. This study seeks to address this gap.

III. Conceptual Framework

The study is anchored in the Sustainable Livelihoods Framework (SLF), which conceptualises livelihoods in terms of access to human, financial, physical, social, and natural capital within a vulnerability context. In the case of tea plantation workers, livelihood outcomes are shaped by employment conditions, wage levels, housing arrangements, asset ownership, and institutional support systems. The SLF provides an appropriate analytical lens to examine how structural constraints within plantation systems affect workers’ capacity to achieve sustainable livelihoods.

IV. Methodology

This exploratory study is based on a pilot survey conducted in Devikulam and Peerumade taluks of Idukki district, Kerala. Primary data were collected from 30 tea plantation households using a structured interview schedule. The sample was selected through purposive sampling to capture workers employed in major estates. The interview schedule covered socio-economic characteristics such as income, years of work, place of birth, language, family type, housing, land ownership, and satisfaction with living conditions.

Data were analysed using descriptive statistics, including frequencies and percentages. A chi-square test was employed to examine the association between income levels and satisfaction with living conditions. Given the small sample size and categorical nature of variables, non-parametric statistical techniques were considered appropriate. The study is subject to limitations typical of pilot studies, including small sample size and limited generalisability.

V. Socio-Economic Profile of Respondents

The socio-economic profile of respondents indicates limited earning capacity despite long-term employment. The majority of respondents earn between INR 10,000 and 20,000 per month, reflecting dependence on plantation wages as the primary source of income. Most respondents have more than ten years of work experience, indicating long-term attachment to plantation employment.

All respondents belong to nuclear families and reside in estate-provided housing, primarily line rooms. Land ownership outside the plantation is limited, highlighting constraints on asset accumulation. Linguistic diversity reflects historical migration patterns, with Malayalam and Tamil being the dominant languages.

VI. Chi-Square Analysis: Income and Satisfaction

Monthly Income (INR)	Satisfied	Not Satisfied	Total
10,000–20,000	0	25	25
Above 20,000	0	5	5
Total	0	30	30

Statistic	Value
Chi-square (χ^2)	0.000
Degrees of freedom	1
p-value	> 0.05
Level of significance	5%

The chi-square test was conducted to assess whether there is a statistically significant association between monthly income levels and satisfaction with living conditions among tea plantation workers. The null hypothesis assumed that there is no association between income and satisfaction.

The results indicate that all respondents, irrespective of income category, reported dissatisfaction with their living conditions. Consequently, the calculated chi-square value is 0.000, and the null hypothesis cannot be rejected at the 5% level of significance.

This finding suggests that income alone does not determine perceived well-being among plantation workers. Even respondents earning relatively higher wages expressed dissatisfaction, indicating the presence of structural and non-monetary constraints such as inadequate housing, lack of asset ownership, restricted livelihood diversification, and dependence on estate management.

VII. Discussion

The findings reveal persistent livelihood vulnerability among tea plantation workers in Idukki district. Despite regular employment, workers experience dissatisfaction due to inadequate housing, lack of diversification, and limited asset ownership. Gendered labour roles exacerbate time poverty among women workers. Generational shifts away from plantation employment have resulted in labour shortages and increased reliance on migrant workers, reflecting structural changes within the sector.

VIII. Policy Implications

The study highlights the need for comprehensive policy interventions aimed at improving livelihood sustainability in the tea plantation sector. Wage revision mechanisms should account for rising living costs, while housing infrastructure within estates requires urgent improvement. Facilitating livelihood diversification, skill development, and asset ownership can enhance resilience among plantation households. Strengthening healthcare facilities and ensuring transparency in labour management are also critical.

IX. Conclusion

This pilot study provides micro-level evidence on the socio-economic conditions and livelihood challenges of tea plantation workers in Idukki district, Kerala. The findings underscore structural vulnerabilities that persist despite long-term employment and statutory protections. The study contributes to plantation labour literature and offers insights for policy and future research. Larger and longitudinal studies are required to deepen understanding and inform targeted interventions.

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