



Plant Archives

Journal homepage: <http://www.plantarchives.org>

DOI Url : <https://doi.org/10.51470/PLANTARCHIVES.2025.v25.supplement-2.070>

EVALUATING CONSTRAINTS AND JOB SATISFACTION AMONG TEA GARDEN WORKERS

Rekha Khalkho* and Souvik Ghosh

Department of Agricultural Extension, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati (A Central University), Sriniketan, Birbhum, West Bengal-731236, India

*Corresponding author email: rekhakhalkho34@gmail.com

(Date of Receiving : 05-03-2025; Date of Acceptance : 13-05-2025)

ABSTRACT

The tea industry in India, contributing 25% to global tea production, plays a pivotal role in the economy, particularly in West Bengal, which accounts for 30% of the country's total tea production. Despite its economic significance, tea garden workers face a multitude constraint across social, financial, technological, infrastructural domains, significantly impacting their job satisfaction and well-being. This study explores the constraints faced by the tea garden workers and evaluates job satisfaction level and responses were collected through structured interview schedule from 120 workers from four randomly selected tea gardens of Jalpaiguri district in West Bengal using exploratory sequential research design. The study envisages that financial constraints like inadequate wages, delayed payments, debt dependency exacerbate economic vulnerability whereas inadequate healthcare infrastructure, poor sanitation, limited access to basic amenities compromise health and diminish workplace efficiency. The dissatisfaction is further exacerbated by excessive workloads, inadequate workplace facilities, insufficient rest periods, inadequate compensation for overtime. To enhance the livelihood standard and welfare of them, targeted interventions are imperative. Addressing these constraints holistically will not only elevate job satisfaction but also contribute to sustainable productivity and socio-economic stability by implementing targeted strategies like minimum wage policy, diversify income sources, subsidized health insurance, awareness programmes, training and skill development programmes, Government, NGOs and corporate social responsibility initiatives etc. Ultimately, fostering a supportive and healthy working environment is crucial for the well-being and motivation of this vital workforce.

Keywords: Tea garden workers, Constraints, Job satisfaction, Strategic recommendation, Worker's well-being.

Introduction

India, the world's second largest tea producer, accounts for 25% of global tea production, with West Bengal playing a pivotal role in this sector. The state alone produces 30% of India's total tea production and accounts for 22.37% of the country's tea cultivation area (Tea Board of India, 2023). The economy of West Bengal depends heavily on the tea gardens of Darjeeling and Dooars regions, which contribute significantly to the national income and sustain the livelihoods of millions residing in these areas (Roy, 2017; Subba *et al.*, 2024). Thus, tea sector is a backbone for regional economic stability and social welfare, providing employment opportunities to large

workforce, predominantly drawn from marginalized communities i.e., Scheduled Castes and Tribes (Bhattacharya, 2024).

However, despite the crucial economic contribution of the tea industry, workers face multifaceted challenges, enduring poor living conditions like poor working conditions, low wages, limited livelihood security and inadequate access to basic amenities (Khalkho and Ghosh, 2023; Bhattacharya, 2024). Wages earned by workers are often below the minimum prescribed agricultural labour standards cause to increase economic vulnerability, debt burdens (Ansari and Sheereen, 2016). Furthermore, due to seasonal and contractual

employment arrangements workers are expose to financial instability, especially in case of sudden closure, strikes, temporary work stoppages, often leads to deteriorate their livelihood (Roy and Biswas, 2018; Das, 2021).

Job satisfaction among the tea garden workers is influenced by multiple factors which is closely related to constraints, including payment irregularity, long working hours, insufficient safety measures expose to occupational hazards and health risks etc. (Ekka and Joseph, 2024). Previous studies uncovered high level of dissatisfaction linked to low wage rate, lack of essential facilities, no proper incentives, unsatisfied promotion process, supervisory interactions, work safety etc. (Saikia, 2023; Powrel and Mishra, 2024). Moreover, poor working conditions such as insufficient health infrastructure, inadequate safety equipment, lack of training facilities further exacerbate job dissatisfaction (Pal *et al.*, 2018; Chakraborty and Mandal, 2024).

This study aims to examine the constraints faced by the tea garden workers and assess their level of job satisfaction. By synthesizing findings, it aims to identify key constraints that underpin their dissatisfaction and propose targeted recommendations to improve their working conditions, livelihood standards and overall wellbeing of tea garden workers.

Materials and Method

The present study was carried out in Jalpaiguri district of West Bengal, purposively selected for having the maximum number of tea gardens in the state, during the period from December 2023 to February 2024. Total four tea gardens from Jalpaiguri districts were selected randomly for the study, i.e., Binnaguri, Choonabhutti, Surrendranagar and Kathalguri. From each tea garden, 30 workers were selected using simple random sampling, resulting in a total sample of 120 respondents. The data collection was carried out through personal interview method with the help of structured interview schedule.

Following exploratory sequential research design, workers' responses on various constraints were recorded on three-point continuum scale i.e., high, medium and low, assigned scores of 3, 2 and 1 respectively. These scores were then multiplied by the frequency of responses to calculate a total weighted score. The weighted mean score was obtained by dividing the total weighted score by the number of respondents (120). For mean score expressed in percentage, the total cumulative frequency was divided by the maximum possible score. This approach aligns with the methodologies applied by Sohi *et al.* (2018); Sohi *et al.* (2021); Pathania and Meena, (2025) in their respective studies.

Level of job satisfaction was assessed using a Likert's four-point continuum scale strongly agree (4), Agree (3), Disagree (4) and strongly disagree (1). The statements for assessing the level of job satisfaction were framed through a comprehensive review literature of journals, research papers, articles, books and a pilot survey. The collected data were analysed using descriptive statistics, including frequency, weighted mean scores, mean scores in percentage, rank ordering as well as mean and standard deviation, to interpret the findings effectively.

Result and Discussion

The constraints experienced by tea garden workers in West Bengal prominent challenges that influence their livelihood, productivity and overall well-being. The constraints were systematically assessed based on their own perceived severity and frequency, providing insight into the most pressing constraints faced by the workers. Understanding these limitations is crucial for developing strategies to improve their working conditions and livelihood. The constraints were delineated as perceived by the tea garden workers, categorised by their perceived levels severity on high (3), medium (2) and low (1), along with frequency counts, weighted frequencies, cumulative frequencies, weighted mean scores, mean scores expressed as percentages and their ranking based on severity or prevalence.

Table 1: Perceived severity of the general constraints faced by the workers

Sl. No	Constraints	Constraints level	Frequency	Weighted frequency	Cumulative frequency	Weighted mean score	Mean score expressed (%)	Rank
1	Misbehaviour of work supervisor	High	12	36	36	1.48	49.44	XI
		Medium	34	68	104			
		Low	74	74	178			
2	Long distance between workplace and home	High	71	213	213	2.53	84.44	III
		Medium	42	84	297			
		Low	07	07	304			

3	Work under heavy rain and sunlight	High	100	300	300	2.82	93.89	I
		Medium	18	36	336			
		Low	02	02	338			
4	Slippery and wet work area	High	84	252	252	2.63	87.50	II
		Medium	27	54	306			
		Low	09	09	315			
5	Lots of mosquitoes and other insects	High	53	159	159	2.30	76.67	VI
		Medium	50	100	259			
		Low	17	17	276			
6	Prevalence of snakes and poisonous frogs at workplace	High	39	117	117	2.12	70.56	VIII
		Medium	56	112	229			
		Low	25	25	254			
7	Backpain due to carrying of tea baskets for long time	High	102	306	306	2.82	93.89	I
		Medium	14	28	334			
		Low	04	04	338			
8	Cuts and rashes on fingers and palm due to plucking tea leaves	High	42	126	126	2.18	72.50	VII
		Medium	57	114	240			
		Low	21	21	261			
9	Management pressure to meet work target	High	56	168	168	2.33	77.50	V
		Medium	47	94	262			
		Low	17	17	279			
10	Prevalence of dangerous animal	High	50	150	150	2.42	80.56	IV
		Medium	70	140	290			
		Low	00	00	290			
11	Exposer to field spray	High	31	93	93	1.85	61.67	X
		Medium	40	80	173			
		Low	49	49	222			
12	Inadequate maternity leave	High	41	123	123	2.02	67.22	IX
		Medium	40	80	203			
		Low	39	39	242			

Table 1 depicts ‘Work under extreme climatic conditions’ and ‘Backpain due to carrying of plucked tea leaves basket for long time’ as the most significant occupational constraints, both with the highest weighted mean score of 2.82, corresponding to 93.89% in mean score percentage and ranked first. This indicates that heavy physical activity in harsh conditions greatly affects workers, aligning with previous studies showing that exposer to extreme weather and physically demanding works are prominent health risks in plantation sector (Kairi and Dey, 2022; Kouhnavard, 2025). Closely followed constraints such as ‘Slippery and wet work area’ and ‘Long distance between workplace and home’ ranked second and third, with weighted mean score of 2.63(87.50%) and 2.53 (84.44%) respectively. These findings highlight the risk associated with inadequate workplace safety measures and logistical difficulties on workers well-being, which have been reported similarly among tea workers in India and other regions where poor infrastructure and hazardous work environments increase risk levels (Das, 2021;

Bhattacharya, 2024). The ‘Prevalence of dangerous animals’ and ‘Management pressure to meet work target’ with weighted mean score of 2.42 and 2.33, corresponding to 80.56% and 77.50% respectively and ranked fourth, fifth. Similar findings were revealed by Roy (2015), who highlighted that human-animal conflicts in tea garden contribute to fatalities among workers. Bhattacharya (2024) further identified that management pressure related to work decrease the well-being of workers. Additionally, other prominent constraints were observed, including ‘High prevalence of mosquitoes and other insects’ (76.67%), frequent occurrence of ‘Cuts and rashes on fingers and palm due to plucking of tea leaf’ (72.50%), as well as the ‘Presence of snakes and poisonous frogs at workplace’ (70.56%) and ‘Misbehaviour of work supervisor’ (49.44%). Similar findings identified by Kairi and Dey (2022), Bhattacharya (2024), Chakraborty and Mandal (2024), reported persistent occupational hazards and psychological problems faced by workers that had enormous effect on their health, job satisfaction and overall well-being.

Table 2 : Perceived severity of the financial constraints faced by the workers

Sl. No	Constraints	Constraints level	Frequency	Weighted frequency	Cumulative frequency	Weighted mean score	Mean score expressed (%)	Rank
1	Wages are not given on time	High	31	93	93	1.75	58.33	VI
		Medium	28	56	149			
		Low	61	61	210			
2	Wages are not sufficient for the family	High	83	249	249	2.62	87.22	I
		Medium	28	56	305			
		Low	09	09	314			
3	Engagement of middleman	High	29	87	87	1.83	61.11	V
		Medium	42	54	171			
		Low	49	49	220			
4	Not getting fare price of work	High	62	186	186	2.36	78.61	III
		Medium	39	78	264			
		Low	19	19	283			
5	Availability of insurance coverage	High	17	51	51	1.50	50.00	VII
		Medium	26	52	103			
		Low	77	77	180			
6	Debt dependency	High	45	135	135	2.09	69.72	IV
		Medium	41	82	217			
		Low	34	34	251			
7	Inadequate compensation for overtime	High	52	156	156	2.37	78.89	II
		Medium	60	120	276			
		Low	08	08	284			

The most important financial constraint identified in table 2 was the 'Insufficiency of wages to meet family needs', which scored highest weighted mean score of 2.62 (87.22%), ranking first in severity. The findings align with previous studies emphasizing inadequacy of wages to meet the basic needs of the workers (Ansari and Sheereen, 2016; Bhattacharya, 2024). 'Inadequate compensation for overtime', 'Not getting fair price for work' and 'Debt dependency' were also ranked as significant constraints with the weighted mean score of 2.37 (78.89%), 2.36 (78.61%) and 2.09 (69.72%) respectively, indicating inequitable remuneration practices leads to economic insecurity among the workers, further exacerbating job

dissatisfaction. Previously, Ansari and Sheereen (2016), Sarkar and Reji (2019), Bhattacharya (2024) highlighted that tea workers in West Bengal face low wages, lack of fair pricing, and debt dependency due to ineffective wage determination models, non-implementation of labour laws, and the overall crisis in the tea industry. Additionally other important financial constraints were 'Engagement of middleman', 'Irregularity of payments', 'Unavailability of insurance coverage', with weighted mean score of 1.83 (61.11%), 1.75 (58.33%), 1.50 (50%) respectively, which similar with the findings of Sen (2015), Hoque and Hasmi (2023), Bhattacharya (2024).

Table 3 : Perceived severity of the technological constraints faced by the workers

Sl. No	Constraints	Constraints level	Frequency	Weighted frequency	Cumulative frequency	Weighted mean score	Mean score expressed (%)	Rank
1	Lack of technological knowledge	High	81	243	243	2.65	88.33	I
		Medium	27	54	297			
		Low	12	21	318			
2	Absence of technology driven skill development programme	High	78	234	234	2.50	83.33	II
		Medium	24	48	282			
		Low	18	18	300			
3	Lack of training and demonstration knowledge	High	59	177	177	2.27	75.83	III
		Medium	35	70	247			
		Low	26	26	273			

Table 3 depicts that ‘Lack of technological knowledge’ ranked first with a weighted mean score of 2.65 (83.33%) reflects as a significant barrier for development. Closely following were the ‘Absence of technology driven skill development programme’ and ‘Lack of training and demonstration knowledge’, ranked second and third with weighted mean score of 2.50 (83.33%) and 2.27 (75.83%). The lack of such

programmes limits the ability to bridge the gap between innovation and practice. Similar findings revealed by Rudra (2018), Das and Islam (2021), Hoque and Hasmi (2023) that many tea garden workers lack exposure to modern techniques, lack of practical demonstrations of new technologies, which hampers productivity and quality of tea production.

Table 4 : Perceived severity of the infrastructural constraints faced by the workers

Sl. No	Constraints	Constraints level	Frequency	Weighted frequency	Cumulative frequency	Weighted mean score	Mean score expressed (%)	Rank
1	Absence of proper storage	High	32	96	96	2.03	67.50	VII
		Medium	59	118	214			
		Low	29	29	243			
2	Transportation problem	High	53	159	159	2.30	76.67	VI
		Medium	50	100	259			
		Low	17	17	276			
3	No provision for protective gears at workplace	High	71	213	213	2.46	81.94	V
		Medium	33	66	279			
		Low	16	16	295			
4	Poor drinking water facility	High	65	195	195	2.43	81.11	IV
		Medium	42	84	279			
		Low	13	13	292			
5	Lack of proper toilet facility at workplace	High	97	291	291	2.72	90.56	I
		Medium	12	24	315			
		Low	11	11	326			
6	Poor first aid facility	High	80	240	240	2.60	86.67	II
		Medium	32	64	304			
		Low	08	08	312			
7	Poor crèche facility	High	--	--	--	1.51	50.28	VIII
		Medium	61	122	122			
		Low	59	59	181			
8	Insufficient healthcare infrastructure	High	58	174	174	2.48	82.78	III
		Medium	62	124	298			
		Low	--	--	298			

Table 4 revealed that ‘Lack of proper toilet facilities’ at the workplace ranks first, with weighted mean score of 2.72 (90.56%) followed by ‘Poor first aid facility’ and ‘Insufficient healthcare infrastructure’ with weighted mean score of 2.60 (86.67%) and 2.48 (82.78%) respectively. This reflects that the absence of sanitation and inadequate healthcare facilities not only compromises workers health and hygiene but also impacts overall productivity and job satisfaction. Similar findings reported by Yasmin *et al.* (2022), Hoque and Hasmi, (2023). Chakraborty and Mandal (2024), workers face poor first aid services, inadequate toilet facilities and insufficient healthcare infrastructure, contributing to their health insecurity and lack of access to basic needs and medical care. Additionally other significant constraints include ‘Poor

drinking water facility’, ‘No provision for protective gears at workplace’, ‘Transportation problem’, ‘Absence of storage facility’ and ‘Poor creche facility’ with weighted mean score of 2.43 (81.11%), 2.46 (81.94%), 2.30 (76.67%), 2.03 (67.50%) and 1.51 (50.28%), indicating their substantial impact on workers health, safety and overall workplace efficiency. Previously Gayatri and Arjunan (2018) revealed that lack access to safe drinking water, leading to health risks and poor sanitation practices and lack of safety measures contributes to higher rates of injuries and health complications. Poor transport options also limit access to essential services, insufficient creche facilities for children of workers result in child challenges, impacting women’s ability to work effectively (Hoque and Hasmi, 2023).

Table 5 : Job satisfaction level of the tea garden workers

Sl. No.	Statements	Frequency (%)				Mean (SD)
		Strongly agree (SA)	Agree (A)	Disagree (D)	Strongly disagree (SD)	
1	The working hours are comfortable.	09 (7.50)	42 (35.00)	62 (51.67)	07 (5.83)	2.56 (0.72)
2	The workload is excessive.	06 (5.00)	52 (43.33)	34 (28.33)	28 (23.33)	2.85 (0.84)
3	The rest intervals are adequate.	12 (10.00)	40 (33.33)	61 (43.33)	06 (23.33)	2.53 (0.78)
4	Inadequate facilities are provided to attend my job.	66 (55.00)	41 (34.17)	13 (10.83)	--	1.56 (0.68)
5	The workplace is free from dust, noise pollution and there is proper lighting / ventilation	44 (36.67)	52 (43.33)	22 (18.33)	02 (1.67)	1.85 (0.77)
6	Safety and comfort in the work environment	39 (32.50)	41 (34.17)	31 (25.83)	09 (7.50)	2.08 (0.94)
7	Inadequate healthcare facilities	52 (43.33)	52 (43.33)	15 (12.50)	01 (0.83)	1.71 (0.71)
8	No opportunities for skill development and career growth	43 (35.83)	77 (64.17)	--	--	1.64 (0.48)
9	Overall satisfaction as a tea garden worker	37 (30.83)	28 (23.33)	37 (30.83)	18 (15.00)	2.30 (1.07)
Overall level of satisfaction (%)						2.10(52.47)

Minimum and maximum possible scores are 1 and 4, respectively

Table 5 reveal that majority of workers (51.67%) expressing disagreement and 35% agreement in their working hours as comfortable, with mean and SD of 2.56 (0.72) which indicates discomfort related to working hours. Regarding workload, 43.33% workers agreed that it was excessive, while 28.33% disagreed with the mean score of 2.85 (0.84), reflecting that workload is one of significant concern for job dissatisfaction. Majority of the workers (43.33%) disagreed on adequacy of rest intervals, with mean score of 2.53 (0.78), emphasizing the insufficiency of rest periods. Previously, Sen (2015), Hoque and Hasmi (2023) reported that excessive workloads due to the

demanding nature of tea cultivation, which requires long hours, inadequate rest and physical labour. Most of the workers expressing agreement on 'Inadequate facilities to attend the work' (55%), 'Workplace is free from pollution' (43.33%), 'Working in safe and comfortable environment' (43.33%), 'Inadequate health care facilities' (43.33%), 'No opportunities for skill development' (64.17%) with mean score of 1.56, 1.85, 2.08, 1.71, 1.64 respectively. Similarly, Chakraborty and Mandal (2024), Powel and Mishra, (2024) reported that inadequate healthcare facilities, low wage, inadequate remuneration for overtime etc. had significant impact on job dissatisfaction.

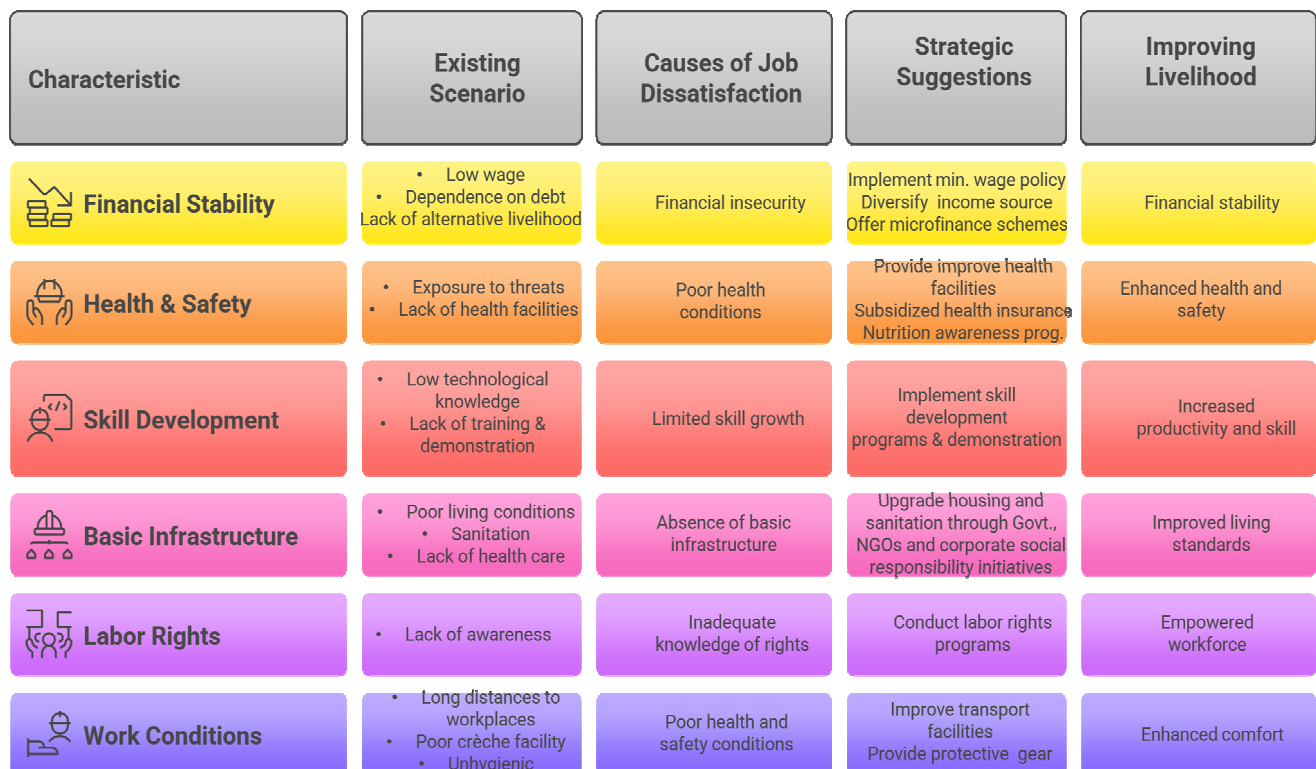
**Fig. 1 :** Strategic framework for improving livelihood of tea garden workers

Figure 1 represents summarised important constraints faced by the tea garden workers, including financial insecurity, health risks, limited skills, inadequate infrastructure and labour rights issues. It links low wages and poor safety to job dissatisfaction and proposes targeted strategies like skill development, implementation of minimum wage policy and infrastructure improvement to enhance their livelihoods and overall job satisfaction effectively.

Conclusion

Constraints and job satisfaction among tea garden workers are deeply rooted in multiple interrelated factors that adversely affect their wellbeing and productivity. The workers face constraints such as low wage, poor living and working conditions, lack of social security, limited access to healthcare and sanitation, which collectively contribute to their dissatisfaction and poor living standards, further exacerbate job dissatisfaction. Despite their vital role in the tea sector, workers often experience job insecurity, limited opportunities for advancement, structural issues within the tea garden such as weak unionism, insufficient managerial support, leading to dissatisfaction and reduced quality of life. Addressing these issues through required targeted policy measures, including fair wage structures, better healthcare and sanitation facilities, better infrastructural facilities, enhanced social welfare measures, implementation of skill development programmes to improving the working conditions and job satisfaction of tea garden workers, thereby ensuring the sustainability and productivity of the tea industry.

References

- Ansari, S., & Sheereen, Z. (2016). Socio-economic condition of tea garden worker in Alipurduar district West Bengal. *International Journal of Research in Social Sciences*, **6**(2), 493-503.
- Bhattacharya, Priyadarshini. (2024). Gendered harm and social abandonment: Stories of the Dooars women tea garden workers. *Journal of Social Inclusion Studies*, **10**(1), 53-74.
- Biplab Chakraborty, & Sanjib Mandal. (2024). Health Infrastructure Gap in Tea Plantations of West Bengal. *Educational Administration: Theory and Practice*, **30**(4), 2414-2423.
- Das, U., & Islam, R. (2021). Livelihood realism: a review on closed tea gardens of Dooars, West Bengal. *International Journal of Research-Granthaalayah*, **9**(2), 72-80.
- Debarshi, B. (2024). Study on Livelihood Crisis and Socio-economic Condition of Tea Garden Workers in Dooars of West Bengal. *International Journal for Multidisciplinary Research*, **6**(3), 1-16.
- Gayatri, P., & Arjunan, R. (2018). Livelihood security of tea plantation workers. *International Journal of Research and Analytical Reviews*, **5**(4), 193-199.
- Hoque, A., & Hasmi, M. R. K. (2023). Socio-Economic Status and Working profile among tea gardens workers in Chopra block of Uttar Dinajpur district, West Bengal (India): A Micro level Analysis. *International Journal of Modernization in Engineering Technology and Sciences (IJMETS)*, **5**(08), 1672-1680.
- Kairi, T. K., & Dey, S. (2022). Prevalence of work-related musculoskeletal symptoms among tea garden workers in Bangladesh: a cross-sectional study. *BMJ open*, **12**(5), e061305.
- Khalkho, R., & Ghosh, S. (2023). Crafting a gender disparity index to unveiling the tea garden workers' gender dynamics. *Indian Journal of Extension Education*, **59**(4), 145-149.
- Kouhnavard, B., Khosravi Danesh, M., Shamsipour, M., & Mazloumi, A. (2025). Investigation of prevalence and risk factors of musculoskeletal disorders among tea harvesting farmers: A systematic review. *Work*, **80**(1), 10-23.
- Pal, B., Biswas, D., & Pahari, S. (2018). Impact of health, safety, welfare measures on productivity: A study on the tea workers of partnership tea estates in Terai region of West Bengal. *Asian Journal of Multidimensional Research (AJMR)*, **7**(8), 15-32.
- Pathania, A., & Meena, S. S. (2025). Constraints Faced by Rural Youth for Opting Entrepreneurship as Career: A Case Study of Haryana. *Indian Journal of Extension Education*, **61**(1), 99-103.
- Powrel, Pronab Jyoti, and Snehal Mishra. (2024). Job Satisfaction Level Among the Tea Garden Workers in Biswanath District of Assam, India. *Journal of Experimental Agriculture International*, **46**(8), 570-76.
- Roy, M. U. K. T. I. (2015). Evaluation of elephant-human conflict tista-mechi area Northern West Bengal. *Indian Forester*, **14**(10), 1020-1028.
- Roy, N. C., & Biswas, D. (2018). Closed tea estates: A case study of the dooars region of West Bengal, India. *Vision*, **22**(3), 329-334.
- Roy, S. (2017). Women labour in the tea gardens of West Bengal: Changing orientation and emerging challenges. *International Journal of Engineering Development and Research*, **5**(4), 862-868.
- Rudra, D. (2018). Case Analysis III: Closed Tea Estates—A Case Study of the Dooars Region of West Bengal, India. *Vision*, **22**(3), 339-341.
- Saikia, M. (2023). A Comparative Study on Workers Job Satisfaction towards Public and Private Limited Tea Garden in Golaghat District, Assam. *International Journal for Multidisciplinary Research*, **5**(6), 1-12.
- Sarkar, S., & Reji, B. (2019). A cup full of woes: wages & tea industry. *Indian Journal of Economics and Development*, **7**(2), 1-8.
- Sen, R. (2015). Tea workers—distressed in the organized industry in North Bengal. *The Indian Journal of Industrial Relations*, **50**(4), 535-549.
- Sohi, H. S., Tanwar, P. S., & Matharu, K. S. (2021). Constraints perceived by rural youth in adoption of button mushroom cultivation and its success in district Barnala. *Journal of Community Mobilization and Sustainable Development*, **16**(1), 7-13.
- Sohi, H.S. and K.S. Matharu. (2018). Constraints Faced by Farmers in Adoption of Kinnow Growing in Barnala

- District. *International Journal of Current Microbiology and Applied Sciences*, **7(10)**, 710-719.
- Subba, B., Mondal, S., Mandal, U. K., & Tamang, L. (2024). Small-scale tea farming sustainability: A case study of Darjeeling hill region, India. *Farming System*, **2(2)**, 100080.
- Tea Board of India (2023). Tea statistics report. Available at (<https://www.teaboard.gov.in/TEABOARDPAGE/ODA=>)
- Yasmin, S., Sau, M., Patra, M., Sinha, N., & Baur, B. (2022). Poverty, undernutrition and morbidity: The untold story of tea-garden workers of Alipurduar district, West Bengal. *Journal of Family Medicine and Primary Care*, **11(6)**, 2526-2531.