



Uncovering the Silent Crisis: Occupational Health Hazards Among India's Tea Plantation Workers

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ABSTRACT

The tea plantation industry in India employs a significant workforce, facing numerous occupational health hazards. Challenges faced by the workers, include exposure to toxins, pesticides, unsafe working conditions, respiratory issues, musculoskeletal problems, and venomous snakebites etc. This paper discusses these challenges and suggests strategies in line with the 2030 Agenda for Sustainable Development. Regardless of existing regulations, there remains a gap in implementation. Measures like regular health surveillance and safety training are important to ensure their well-being and sustainable growth of the sector. This paper emphasizes the need for prioritizing workers health and safety for their holistic development.

Keywords: Tea plantation Workforce, Occupational health hazards and Sustainable Development.

Introduction

The inception of tea plantation in India dates back to 1823 when British explorers discovered wild tea plants in the forests of Assam. India ranks among the top tea-consuming nations globally, with 80% of its tea production consumed within the country. Furthermore, globally it holds as one of the most refreshing and widely preferred beverages (India Brand Equity Foundation Report, 2022). The primary tea cultivation areas are situated in Northeast India, predominantly in Assam, then in North Bengal, surrounding the Darjeeling district and the Dooars region, the Nilgiri region in the Southern India also contributes significantly to a large-scale of tea cultivation (ibid.). Workers in the tea industry are primarily migrants, who have established permanent residence in several garden regions, across India. As a matter of fact, they come from diverse ethnic backgrounds, castes, and cultures, yet they hold strong ethnic solidarity.

Workforce in this industry is primarily divided into two groups: garden laborers (who cultivate tea plants and harvest tea leaves) and processing department workers (ILO report, 2016). Tea production procedures involve several steps, such as dehydrating, filtering, mixing, rolling, ball rolling, packing, and rolling. (Shieh, Chung, Wang, Tsai, Kuo & Guo, 2012). A major chunk of the labour force in the tea industry comprises of women workers. Their work typically includes tea leaf plucking and lighter maintenance duties, while men handle more physically demanding tasks in addition to plucking. (Tata Institute of Social Sciences report, 2019). These responsibilities include activities such as digging, weeding, pruning, and drainage.

Like workers in any other sectors, tea plantation workers similarly face a number of occupational hazards (Nair & Priyadarshan, 2018). Biological and chemical factors, along with unfavourable working conditions, provide the biggest risks to tea plantation workers in this industry. The nature of their work not only involves maintaining specific postures and performing tasks of varying durations but also often they come into contact with wild animals and plants which increases the risk of bites, poisoning, infections, parasitic diseases, allergies, toxicity, and other health issues (Mittal & Gupta, 2008)). Although the Plantation Labour Act 1951, mandates tea estates to provide essential welfare services and amenities to their workers (Press Information Bureau, 2023), yet studies indicate that limited access to education negatively impacts their health awareness and healthcare-seeking behaviour, leading to a higher prevalence of diseases and illness (Nath & Nath, 2014; Roy, Kar Chakraborty & Mozumdar, 2013). With the objective of "leaving no one behind," the United Nations adopted the "2030 Agenda for Sustainable Development" in 2015, which comprises 17 Sustainable Development Goals (SDGs) intended to promote holistic sustainable development, including health-related goals. Therefore, in order to meet the health needs of historically marginalized groups, India adopted a new National Health Policy in 2017 to better align with these SDGs. The paper is an attempt to investigate the occupational health status of the tea garden workers. This also lines up with the goals of the 2030 agenda, casting light on their actual requirements, and contributing to wider discussions on healthcare and sustainable development. Thus, the significance of this study is projected to be imperative in both academic and practical aspects. The design of the paper is descriptive in nature and the main sources of data are published and unpublished research articles, books, government reports, electronic and print news reports, and other online and offline documents.

Analysis and Discussion

India's tea plantation industry is a key component of the country's agricultural economy and employs a large number of workforces, especially in rural areas. However, there exists numerous risks and hazards which are related to occupational health of the workers, engaged in the labour-intensive industry. Occupational health addresses every facet of workplace safety and health, with a particular emphasis on primary preventive measures. The duration of exposure and the concentration of the hazardous materials or substances are the primary factors determining the effects of occupational hazards (Roy & Pal, 2020). Major themes identified in this study are discussed below:

Occupational Health Hazards and Risks

A hazard is defined as "any source of potential damage, harm, or adverse health effects on something or someone" whereas a risk is defined as a "probability or likelihood of contracting an illness or being hurt" in the context of workplace health and safety (Canadian Centre for Occupational Health and Safety). Various occupational health menaces, such as chemical, biological, physical, and psychosocial variables, are encountered by tea plantation workers in India. Owing to poor education, inaccessibility to healthcare facilities, and safety protocols further worsen these risks, which result in work-related accidents and a variety of health issues among its workforce. (Borgohain, 2013). A large number of the workforce, comprising women, also suffer from serious health risks. It is argued that women who engage in tea picking activities lack proper tools and personal protective gear (Kalyani, 2023). These women workers face a higher risk of venomous snakebites due to their predominant role in harvesting tea leaves in the fields, leading to regular encounters with venomous snakes (Mongabay, 2023). Kapeleka, Lekei, & Hagali, (2016) identified that most employees of tea industries use pesticides without prior knowledge, there is no appropriate technical guidance and training for safe and responsible pesticide use.

Health Complications and Impacts

There are some health complications that come with breathing, skin diseases, trauma, poisoning, and neoplastic illnesses (Chaudhuri, 2000). Joseph & Minj (2010), states that the workers believe that bug bites and backaches pose the biggest and most common health risks for them. Simanungkalit, & Sitepu, (2020) argues that musculoskeletal problems are a result of ergonomic hazards. These hazards include awkward or static postures or short intervals between activities. Carrying loaded tea baskets over the head has been reported to cause degenerative changes in the cervical spine, while continuous plucking of tea leaves can lead to painful abrasions on the hands (Sivaram, 1996).

Challenges Faced by the Workers

Working on plantations involves several tasks and diverse responsibilities, specific postures and long hours exposing workers to health risks. These risks include exposure to toxins, poisons, infections, parasite related illnesses, allergies, bites etc. (Rehena, 2018). Rafique (2017) found that health and safety risks are primarily arising from unguarded machinery, exposure to chemical and biological agents, and challenging working conditions such as high temperatures and high humidity. The absence of safeguards on machinery poses a direct threat to the safety of these workers, emphasizing the importance of implementing safety measures and protective protocols.

Government Regulations and Policies

The regulatory framework governing the tea industry, consists of laws such as the Factories Act, 1948, the Plantation Labour Act, 1951 and the Tea Act, 1953. By enacting specific safety and health regulations, these laws seek to safeguard the welfare of the workers. In these regard, ILO's goal to safeguard workers against sickness, disease, and injury resulting from their employment is noteworthy. Since 1950, the International Labour Organization (ILO) and the World Health Organization (WHO) have shared a unified definition of occupational health which states that

Occupational health should aim to promote and maintain the highest degree of physical, mental and social well-being of workers in all occupations; to prevent amongst workers the departure from health caused by their working conditions; to protect workers in their employment from risk resulting from factors adverse to health; to place and maintain workers in an occupational environment adapted to their physiological and psychological capabilities; in summary, to adapt work to the workers and each worker to his or her job. (Kopias, 2001).

Besides, the National Policy on Safety, Health, and Environment at the Workplace aims not only to eradicate work-related injuries, diseases, fatalities, and disasters, thereby minimizing the loss of national assets, but also to foster a high standard of occupational safety, health, and environmental performance.

Solutions and Mitigation Strategies

Moitra, Thapa, Das, Das, Debnath, Singh, Datta, Sen, & Moitra (2016) explained that due to occupational exposures, tea sector workers experience respiratory symptoms and are more susceptible to allergens, which calls for routine, systematic surveillance of the air quality in their workplaces and regular monitoring of their health status. They further argue that factory workers are more likely to have nasal allergies than garden workers, who complained of shortness of breath three times more commonly. These occupational hazards emphasise on the importance of implementing safety measures and providing adequate training and protective equipment to mitigate risks in the tea plantation sector.

Impact on Sustainable Growth and Well-being

ILO states that Occupational Safety and Health (OSH) present significant challenges in the plantation sector, particularly concerning chemical and biological hazards stemming from the use of agro-chemicals without adequate protection, and limited access to clean water and sanitation facilities. These

conditions have resulted in insufficient investments in the living and working conditions of workers, leading to serious social problems and adverse health and safety consequences for both workers and their families. Thus, in order to support the long-term growth of the tea plantation industry, the paper emphasizes how critically important it is to address occupational health demands. Implementing safety precautions, and setting up social safety nets are considered essential to creating a positive work environment and protecting the overall health of tea plantation workers.

Recommendations for Improvement

The productivity of the tea plantation is closely linked to the well-being of its workforce. Studies reveals that the prevention and management of these issues related to occupational health are not given enough attention. Plantation workers in India can only be promoted and maintained to the highest degree of physical, mental, and social well-being by an appropriately designed, comprehensive occupational health care program that includes all the components of preventive, curative, and rehabilitative aspects. The paper emphasizes the necessity of regular health surveillance programs for workers, engaged in the tea industry as well as orderly workplace environment monitoring. In labour-intensive businesses like the tea industry, where laborers are uneducated, untrained, and voracious while still trying to boost production, workers safety and health must be given outmost priority (ILO report, 2016).

Conclusion

To conclude, the tea plantation industry in India plays a vital role in the agricultural economy, providing employment opportunities to many. However, these workers face many occupational health hazards like chemical exposure, physical strain, and lack of proper safety measures etc. Despite existing regulations, there persist challenges, which need to be addressed with strong proactive measures. This entails organizing training workshops and programs, enhancing capacity-building efforts, and advocating for the implementation of occupational health and safety measures. Thus, for this sector to thrive sustainably, it is imperative that workers well-being is given top priority.

REFERENCES

- Baishya, D. (2016). History of tea industry and status of tea garden workers of Assam. *International Journal of Applied Research*, 2(9), 552-554.
- Borgohain, P. (2013). Occupational health hazards of tea garden workers of Hajua and Marangi tea estates of Assam, India. *The Clarion- International Multidisciplinary Journal*, 2, 129-140.
- Canadian Centre for Occupational Health and Safety. (n.d.). Hazard identification, assessment, and control. Retrieved from https://www.ccohs.ca/oshanswers/hsprograms/hazard/hazard_identification.html
- Chaudhuri, R. N. (2000). Occupational health problems among agricultural and plantation workers. *Journal of the Indian Medical Association*, 98(8), 439-41, 445.
- Forastieri, V. (2001). Challenges in providing occupational safety and health services to workers in agriculture. The ILO programme on safety and health in agriculture. *African Newsletter on Occupational Health and Safety*, 11, 33-38.
- Global Research & India Committee of the Netherlands. (2016). Certified Unilever Tea – A cup half empty follow-up study on working conditions in rainforest alliance certified tea plantations in India. India Committee of the Netherlands, Nederland.
- Indian Brand Equity Foundation. (2022). Indian tea industry. Retrieved from <https://www.ibef.org/exports/indian-tea-industry>
- International Labour Organization. (2016). A study report on working conditions of tea plantation workers in Bangladesh. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-dhaka/documents/publication/wcms_563692.pdf
- International Labour Organization. (n.d.). Chemicals hazards in the agricultural sector. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---portray/---safe-work/documents/instructional-material/wcms_871784.pdf
- Joseph, B., & Minj, C. (2010). Risk rating in the tea planting industry: The employees' opinion. *Indian Journal of Occupational and Environmental Medicine*, 14, 97-99.
- Kalyani, D. (2023). Occupational Attributes and Its Impact on Health among Tea Plucking Women Workers of Assam. *The Journal of Research ANGRAU*.
- Kapeleka, J. A., Lekei, E., & Hagali, T. (2016). Pesticides Exposure and Biological Monitoring of Ache Activity among Commercial Farm Workers in Tanzania: A Case of Tea Estates.
- Kopias JA. Multidisciplinary model of occupational health services. Medical and non-medical aspects of occupational health. *Int J Occup Med Environ Health*. 2001;14(1):23-8. PMID: 11428252.
- Marimuthu, S., Jeyaselvam, M., Sathyalakshmi, V., & Mohammed Abubakkar Siddique, R. (2019). Working conditions of employees of tea industry in Nigiris District. *International Journal on Customer Relations*, 7(1), 15.

- Mittal, A., & Gupta, R. (2008). Plucking the pain. occupational health study on small tea plantation workers. *Centre for Education and Communication*, 1-48.
- Moitra, S., Thapa, P., Das, P. K., Das, J., Debnath, S., Singh, M., Datta, A. K., Sen, S., & Moitra, S. (2016). Respiratory Morbidity among Indian Tea Industry Workers. *The International Journal of Occupational and Environmental Medicine*, 7, 148-155.
- Mongabay. (2023, September). Venomous snakebites: An occupational hazard for women tea workers. India. Retrieved from <https://india.mongabay.com/2023/09/venomous-snakebites-an-occupational-hazard-for-women-tea-workers/>
- Nair, G. K., & Priyadarshan, S. (2018). A Study on occupational health hazards and the safety measures taken by the tea plantation workers of Kerala. *Int J Sci Adv Res Technol*, 4, 21-29.
- Nath, R. D., & Dipak Nath, D. N. (2014). Educational vulnerability and risk factors of tea garden workers with special reference to Dewan Tea Garden Village, Cachar, Assam, India.
- National Policy on Safety, Health and Environment at Workplace, Govt of India. India.
- Press Information Bureau. (2023, Dec 18). Social security schemes for tea plantation workers [Press release]. Retrieved from <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1987738>
- Rafique, S. (2017). Evaluation of Occupational Hazards of Workers Working in Vital Tea Factory Tehsil Haroonabad District Bahawalnagar-Pakistan. *Journal of Medicine, Physiology and Biophysics*.
- Rehena, P. (2018). Health and economic conditions of tea garden female workers: A study on legal rights. *Green University Review of Social Science*, 4(1), 111-132.
- Roy, P., & Pal, J. (2020). A study on occupational health hazards and morbidity profile of the bus drivers and conductors working in government bus depots of South Kolkata. *International Journal of Community Medicine and Public Health*, 7(12), 5054-5062.
- Roy, S. K., Kar Chakraborty, S., & Mozumdar, A. (2013). Health: Cognition and threshold among the Oraon tea garden labourers of Jalpaiguri District, West Bengal. *Journal of Anthropology*, 2013.
- Shieh, Tzong-Shiun, Jui-Jung Chung, Chung-Jing Wang, Perng-Jy Tsai, Yau-Chang Kuo, and How-Ran Guo. "Pulmonary function, respiratory symptoms, and dust exposures among workers engaged in early manufacturing processes of tea: a cohort study." *BMC Public Health* 12 (2012): 1-11.
- Simanungkalit, J. N., & Sitepu, Y. R. B. (2020). Ergonomic Hazards and Musculoskeletal Disorders among Tea Farmers. *Jurnal Penelitian Perawat Profesional*, 2(4), 483-494.
- Sivaram, B. (1996). Productivity improvement and labour relations in the tea industry in South Asia. ILO Working Papers 993193663402676, International Labour Organization.
- Soneja, P., Yadav, A., Awasthi, H., & Mazumder, A. (2021). Occupational Health and Safety Complications with Tea Workers in Assam. *European Economic Letters (EEL)*, 11(1).
- Saha, D., Bhue, C. & Singha, R. (2019). *Decent Work for Tea Plantation Work in Assam: Constraints and Prospects*, Guwahati, Assam: Tata Institute of Social Sciences.