Assessment of the Socio-Economic and Health Conditions of Women Tea Plantation Workers in Nambornadi Tea Estate, Assam

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Assam has grown tea for 100 years. It began in Britain and continues today. Assam produces half of India’s tea. Women tea workers live in most of Assam’s remote districts (Baishya, 2016). Assam’s GDP is 20% from tea plantations. Assam’s tea estates employ many Indians. These workers’ health is considerably lower than the state average for many reasons. These workers lack schools, latrines, adequate drinking water, healthcare, and nourishment. Due to poor access, they have a higher maternal mortality rate (404 per 100,000 live births), higher risk of pregnancy-related complications, hypertension (60%), poor nutritional status, low birth weight babies (43%), and higher TB prevalence (30–40%) than the general population in the state (Rajput et al., 2021). Health is total physical, mental, and social well-being. Happiness requires health. Health depends on nutrition and hygiene (Timing and Sarmah, 2013).

The experiment was conducted between June and September 2022. Nambornadi Tea Estate in Assam was studied. Study used both primary and secondary data. A total of 75 women tea plantation workers were selected using simple random sampling and interviewed using a structured schedule. The Nambornadi tea estate management board, websites, magazines, and Assam Govt. archives provided secondary data. The study’s interview schedule included parts on respondents’ personal profiles, health, and health issues. Primary data was collected by observation and face-to-face dialogue.

Socio-economic profile of the respondents

The demographics revealed that 28% of the respondents belonged to the age group of 26-30 years, about 26.67% of the respondents belonged to the age group 20-25 and 31-40 years and only 18.67% of the respondent were found to be above 40 years. Hence, it could be inferred that majority of the selected women workers were young. It was observed that around 76% of the respondents were Hindus. This finding is in line with the findings of Chowdhury et al. (2018). While the remaining 24% of the respondents were found to be from Christian religion.

Majority 90.67% of the tea garden women workers of the respondents were married. 8% of the respondents were unmarried and a meagre amount of 1.33% respondents were found to be widow. Although majority of the respondents were found to belong to young category, here the result showed that the number of married women was higher than the number of unmarried women. This finding was quite evident because with less education and rural background, women tend to get married at younger age than those in educated urban areas.

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Women workers (58.67%) were part of nuclear families and 41.33% belonged to joint families. This showed modernization in the area. Modern nuclear families are spreading on tea estates. Nearly half of them (48%) were illiterate, 22.67% had primary education, 16% had middle school education, and only 10.67% had higher secondary education. Only a small segment (2.67%) attained education up to high school. According to the respondents, their parents did not educate them, especially the women, due to ignorance and poverty. Ansari and Sheereen (2016) in their study found that 65% of the respondents were literate in West Bengal, which is also eastern part of India. Respondent’s family income is mainly wages. They believed tea garden wages were insufficient to cover their everyday expenses. They were poor. It’s well established that families with higher incomes live better. The results showed that cent percent of respondents had a monthly income of Rs.5001-7000, which was low considering the price hikes of all goods and commodities in recent times.

Health profile of the respondents

The respondents’ health profiles were categorized into physical, occupational, biological, chemical, and mechanical hazards. It was reported that 65% of the respondents were exposed to heat, especially in summer. Except for trees, they had little cover or shade during hot heat. Majority 75% experienced frequent pain from carrying big items. Cold, which often caused illness and made work difficult, afflicted 95% of the respondents. Mechanical, chemical, biological, psychological, and environmental risks plagued tea plantation women. Due to illiteracy, poverty, and lack of medical and hygienic facilities, tea garden workers have low awareness. Similar findings were reported by Borgohain (2013) for Assam tea workers.

Regarding occupational hazards, all of the respondents were prone to occupational hazards such as body pain, which they experienced frequently because of carrying heavy loads. Furthermore, large majority 97% of the participants reported frequently experiencing headaches due to carrying these loads on their heads. A significant portion of the respondents (77%) reported suffering sometimes from respiratory diseases caused by exposure to chemicals used in tea plantations rare.

The study found that many tea plantation workers were exposed to biological dangers that endangered their health. Majority 80% of tea plantation workers reported occasional insect bites. Tea plantation workers were exposed to disease-causing insects. Due to extensive perspiration in the hot and humid weather, it was found that 88% of respondents experienced fungal infections. The labourers’ continuous contact to damp tea fields allowed fungus to proliferate, causing skin diseases. Due to tea plantation insects, followed by 79% of the respondents reported occasional malaria. Malaria-causing mosquito bites are common for workers. Tea fields’ lush greenery and bushy places encourage mosquito breeding and malaria.

Chemical risks endangered many tea plantation workers. Specifically, majority 84% of the respondents reported experiencing dermatitis, a skin condition caused by exposure to chemicals. Additionally, 79% of the participants reported being affected by eczema, another skin condition caused by exposure to chemicals. And, most of the respondents (85%) stated getting skin rashes due to exposure to chemicals used in tea plantations. Pesticides and herbicides used in the plantation could cause skin ulcers in workers. Studies show that these chemical risks can have long-term repercussions on workers’ health and well-being, therefore, it’s important to wear protective gear.

The study found that many tea plantation workers were at danger of injury from mechanical hazards. Specifically, majority (85%) of the
respondents reported experiencing cuts and scrapes while working with tea plants and cutting tea leaves. The sharp tools used in tea plantations, such as pruning shears, pose a risk of cuts and scrapes when handling tea bushes and leaves. Furthermore, the majority of the respondents (73%) reported frequently experiencing sprains while working in the tea plantations. The repetitive and physically demanding nature of the job, such as bending and lifting heavy loads increased the risk of sprains and other musculoskeletal injuries. Researchers conducted have concluded that it is essential to provide adequate safety measures and training to minimize the risk of injury to tea plantation workers. This can include the use of protective equipment, such as gloves and safety shoes, and training on proper handling techniques to prevent injury.

**Association between physical hazards with their respective age groups**

Table 1 shows One-Way ANOVA results. The research calculated the F-value and significant value as 2.986 and 0.02, respectively, establishing a significant relationship between physical hazards and respondent age group at 1% significance. This indicated that physical dangers differed by age group, as older people are more susceptible to numerous health conditions. This study was compared to Kwon et al. (2021) who suggested that physical hazard exposures may raise the incidence of sadness and anxiety. These connections were stronger in men than women, and the higher the age group, the greater the risk.

**CONCLUSIONS**

Women tea plantation workers at Nambornadi Tea Estate, Assam, were examined for their socio-economic and health issues. The survey found that most respondents were 26–30 years old, Hindu, married, nuclear family, illiterate, and made Rs.5001–7000 per month. Respondents faced physical, occupational, chemical, biological, and mechanical dangers due to their work. These dangers caused general illness, body and head aches, skin bacterial and fungal infections, dermatitis, and more. Seasonal effects, lifting and carrying large weights, lack of clean drinking water, sufficient nutrition, alcohol and tobacco use, salt use, etc. also worsened their health. ANOVA test showed a significant association between the aforesaid variables at 1% level of significance, indicating that physical hazards differed by the age groups. Most respondents aged above 40 years were more associated with physical health hazards because older people are more likely prone to illness.

**REFERENCES**


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