

COMPARATIVE ASSESSMENT OF OCCUPATIONAL HEALTH & SAFETY ISSUES PREVAILED AMONG CASHEW WORKERS

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Abstract—Occupational safety and health has become a very vital issue because of the shifting of technological advancements and deployment of newer concepts. Assessment and management of the issues is a major hurdle in front of the management and workers. Cashew processing is a highly labour intensive industry and has a long history of employing a large number of workers. The state of Kerala accounts for the highest proportion of cashew workers in India which employs nearly three lakh workers. In most cashew plantations and processing units, workers face several health problems like irritation to fingertips, skin burns, dermatitis, respiratory diseases, cancer and reproductive disorders due to risks from their nature of work. The present study aimed to assess and compare the status of occupational safety and health at cashew nut factories at Kollam district and to suggest safety measures for each unit workers and to the management authorities. Assessment was carried out through direct survey method. The result obtained indicates with back pain, head ache, asthma, cramp knees, joint pain affecting the life of labours especially from traditional industry. Working conditions of workers are poor at traditional industry when compared with modern industry. From the study in traditional industry about 80% of workers are suffering from back pain, 73% having pain in neck, 69% having joint pain, 44% suffering from cramp in knees, 5% have asthma and skin irritations; 50 % greater impacts were recorded with the age group of more than 40.

Index Terms— Occupational health and Safety, Cashew workers, Occupational diseases, Occupational exposure

1. INTRODUCTION

After the home environment, it is the workplace where many people spend more of their time. In favourable circumstances, work is expected to contribute to good health to give good health and wealth. But there are work environments that expose many workers to health hazards that contribute to injuries, respiratory diseases etc, Hazards includes long working hours, poor housekeeping, ventilation and lighting, poor work posture, chemical exposures [1]. Cashew processing is a highly labour intensive industry and has a long history of employing a large number of workers.

One of the unique features of this industry is that an overwhelming majority (more than 90 per cent) of workers are women belonging to the economically and socially disadvantaged strata of the society. The state of Kerala accounts for the highest proportion of cashew workers with the approximation more than 3 lakh workers. The working conditions of cashew nut workers have been the object of scholarly and policy concerns for long period. However many of the insecurities affecting livelihood of cashew workers ranging from health hazards to lack of effective social protection [2].

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2. OBJECTIVES

The main objective of this study is to compare the safety measures provided by modernized and traditional industrial units and to assess the

impacts faced by both the workers through direct survey.

1. To assess the occupational health problems of workers in cashew nut industry.
2. To assess safety measures adopted to prevent health hazards at both the sides.

3. MATERIALS AND METHODS

The current study was carried out to investigate the occupational health hazards prevailing in traditional and modern cashew industry and to assess the measures adopted in both the industrial unit as safety measures. Direct surveying investigation with structured questionnaire was adopted for this work. The questionnaires were pre-tested before finalisation. Questions cover social, economical, educational and industrial aspects. The survey was conducted with 50 interested participants from each traditional and modern industry. To obtain a holistic understanding of the industrial exposure, responses were rechecked through direct interviews with industry quality control officer, traders, safety officers and with the management peoples. Relationship between different factors like age & impact of occupational & health complications were analysed with statistical and mathematical tools.

4. RESULTS AND DISCUSSION

The analytical results of traditional & modern industrial sectors are shown in tables 1 and 2.

Nature of work	Traditional factory	Modern factory
Shelling/Cutting	44%	32%
Peeling	36%	26%
Grading	18%	20%
Packing	2%	4%
Others	0%	18%

Table 1: Nature of work & % of workers

Provision of a safe and aesthetic work environment is important not only to the workers but also to the employers as the cashew processing sector is currently failing to attract the

new generation to its fold [3]. A relatively better educated labour force in Kerala is no longer willing to work in poor working conditions. As a result, many of the youngsters prefer to work in retail and other sectors where the work environment is better than that in the cashew processing units. So the continued sustenance of the industry lies in their ability to develop attractive and health promoting work environments. Workers in general are of the opinion that over the years working conditions have improved in the sector as the majority of employers are taking proactive steps. Conditions of working in Modern Industry are better when compared to traditional units [4].

The usual work time in the cashew processing sector is from 8AM to 5PM. This is true of factories under all types of ownership. There is some uniformity in this regard across different activities and gender. Under the piece rate system, the worker who is working for additional time gets wages based on the additional workload. The industry standard is to have three rest intervals / breaks in a day during work. However, it was found that many of the workers skip or reduce their rest intervals to maximize their output under the piece rate wage system. The study found that one-third (34 %) of the workers in traditional industry skipped rest intervals and this was more prevalent among female workers who are paid on a piece rate basis. Most of the workers who skipped rest intervals did so to maximize the output and thereby increase the earnings under the piece rate system [5]. This has long-term exposure and consequences on the health of the workers, more so when the workers are squatting on the floor to perform their work.

Continuous sitting for a long period of time can lead to physical difficulties and disorders. Low back pain has been identified as one of the most common issue among the cashew working population. If the worker has to sit / squat on the floor, the chances of illness are more than for work involving sitting on a bench / chair [6]. We have seen that the workers often skip rest

intervals and therefore continue working in the sitting position for long durations. The study also explored the sitting position of the women workers engaged in shelling / cutting, peeling and grading.

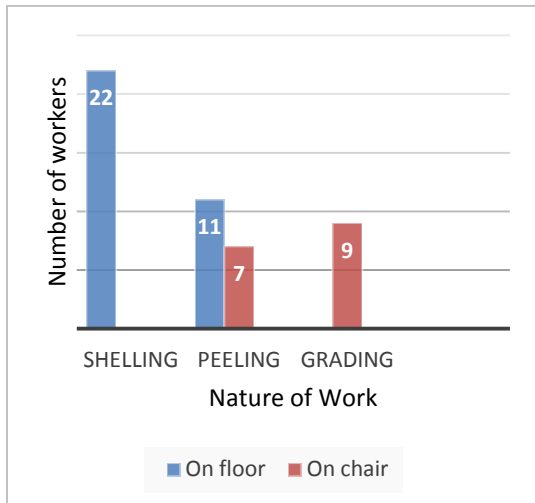


Fig 1: Prevalled working positions



Fig 2: Shelling unit in traditional factory

It is found that even after significant improvement in many other sectors, four-fifths of the workers in cashew processing are still sitting / squatting on the ground and performing their tasks for long hours without making use of rest intervals [7]. The situation is better among peelers and graders. Most of the peelers are sitting in floor even if they have seating

arrangements. All Graders are sitting on chair. In modern industry everyone are working in chair. [8].

Proper ventilation and sufficient lighting are available in the workspace that is in two kinds of industries there is proper ventilation & lighting. Sufficient toilets and spaces for cleaning/washing are also available in most of the factories [9]. But the problem with toilets and the bathroom / space for cleaning / washing is not related to the availability but their cleanliness. Many of the workers whom we interviewed reported that the toilets and washing places are unclean [10]. This is a major concern for the workers in traditional industries. Modern industry there is no concern with the cleanliness of sanitary facilities. Another often-heard complaint is that there is no space for the workers to take rest and have lunch. The problem is more widely reported in the factories under traditional facility compared to the modern. The workers have to eat lunch under the trees or in the open space [11].

Facilities	Traditional	Modern
Proper Ventilation	✓	✓
Sufficient Lighting	✓	✓
Sufficient Toilets	✓	✓
Sufficient Resting Room	×	✓
Availability of Drinking Water	✓	✓
Exhaust fans	×	✓

Table 2: Facilities of working space

As age goes on the number of occupational diseases are also going up. Following illustrations showed number of individual vs age groups for different occupational impacts.

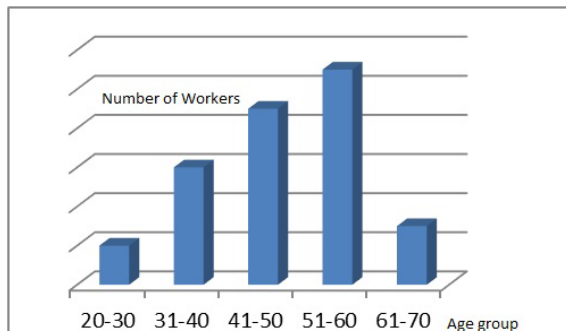


Fig 3: BackPain (Modern factory)

Likewise as the experience of workers increases the chance of occupational impact is also high. For example, the graph below shows experience of workers in X axis & number of workers in Y axis for the impact joint pain.

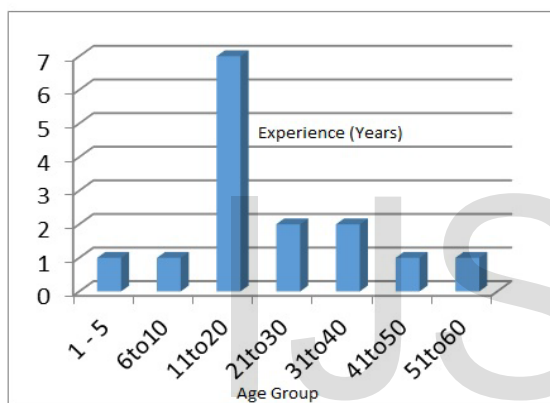


Fig 4: Joint Pain (Modern Factory)

From the study in traditional industry about 80% of workers are suffering from back pain, 73% having pain in neck, 69% having joint pain, 44% suffering from cramp in knees, 5% have asthma and skin irritations; impacts were greater (50%) in age group of above 40 years. Compared to traditional industry workers from modern industry are suffering with fewer diseases. No asthma and skin diseases were found in modern units. 68% are having back pain, 52% suffering from pain in heels and neck, 40% having joint pain.

6. CONCLUSION

From the present study it has been seen that the cashew workers are suffering from many occupational diseases like back pain, joint pain, stiff neck, asthma etc. In traditional industry, since they are not providing sufficient safety

measures, numbers of occupational disease cases are also more. In modern industry no skin disease cases were found. These occupational diseases are mainly seen in aged group persons or those who are working for more than five years in this field continuously. Impact of occupational and health complications can be decreased by adopting of safety measures like wearing gloves, mask, having exhaust fans, sufficient rest time, proper sitting posters, availability of medical facilities within the unit.

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