India is the largest producer and exporter of cashew kernels in the world. It is one of the most important cash crops in India. Kerala State records the highest production and processing of cashew kernels in India. In Kerala alone around 15 lakh people work in this industry and ninety four percent of them are women. Women's work in the cashew industry is mostly manual. The long hours of work in strained posture, inadequate workspace and the constraints of precision and speed cause different types of stress to these workers.

The objectives of the study are to find out the tasks performed by women workers in the cashew industry, to identify their occupational health problems, to assess the postural stress of tasks reported to be highly fatiguing, and, to suggest viable improvements at the worksite for reducing the physical strain of the women in this industry.

The study was conducted within the revenue district of Kollam in Kerala State using an exploratory survey design. This was followed by quantification of postural stress of shelling of cashew nuts, the most fatiguing task, using body discomfort scale and measurement of spinal curvature. Data were collected from a total of 520 workers chosen from 26 factories selected at random from a total of 230 working factories in Kollam District. The data collection was done between March 1998 and June 2000.

In the cashew industry shelling, cutting, peeling, grading and packing were the jobs done by women. The majority of these women were either the sole earners or the main earners of their families, with an average family income of Rs. 1,705 per month. The majority of the workers belonged to nuclear families. Three earners was the norm of the group.

Employment in the cashew industry was mostly seasonal. Around 73 percent of the workers had put in more than 20 years of work. They used to spend nine hours a day at the workplace. The average daily outturn of women in the shelling, cutting, peeling and grading sections were 6.9 kg, 11.2 kg, 7.1 kg, 22.6 kg respectively. In the packing section, on an average, women packed 536 tins/day. The mean income of the women was Rs.1061 per month and accounted for 71.75 percent of the total family income.
The women in the cashew industry complained of neural, respiratory, musculoskeletal, gynaecological, obstetrical, surgical and cardiological discomforts/problems. Discomforts affecting skin and eyes were predominant among the workers in the shelling section. Shelling was the most fatiguing task and the most commonly reported problems were severe low back pain and gynaecological discomforts.

Comparing the health complaints of women in the shelling section with those of seven categories of non-cashew workers, the complaints of those engaged in coconut fibre processing were found to be similar. Occurrence of gynaecological and obstetrical complaints looked alike in these two groups with postural similarities at work. As work progressed, women in the shelling section suffered the highest degree of pain at the lower back followed by mid-back, thighs, and upper back, whereas in the cutting section pain increased in the thigh, neck and legs.

In the shelling section, with the progression of work, the body angles of the workers decreased considerably with an increase in the lumbar angle. In the case of workers in the cutting section, as work progressed, though a slight increase in the body angle was noticed, the change was not significant. A significant variation in the lumbar angle was noticed in workers in the shelling section indicating a higher degree of pressure and discomfort at the lower back. Their low back pain could be the outcome of this postural stress. At the same time no significant change was noticed in the lumbar angle of workers in the cutting section.

Based on the study, improvements like a comfortable sitting posture for the workers in the shelling section are suggested as immediate relief. Shifting from the premordial mode of shelling to cutting is to be made mandatory and carried out in a phased manner. Other health modifications suggested include provision of a gripper to hold the nut while shelling and insistence on a cloth cover for the mouth and nose to protect the workers from inhalation of dust. Simple improvement of the wooden mallet along with health care measures like periodical eye checkup and seating provision for the workers in the cutting section have also been suggested. Such improvements will, in the long run, improve the health and the efficiency of the workers in the cashew industry and, consequently, their productivity and development.