CHAPTER-V : THE WORKERS' LIVING AND WORKING CONDITIONS

Living Conditions:

Suitable housing is a basic need of industrial workers as it constitutes the most important part of the physical environment which continuously influences the health and efficiency of the workers. Housing means 'the provision of comfortable shelter and such surroundings and services as would keep the worker fit and cheerful for all the days of the year'.\(^1\) Special attention has to be paid to the provision of adequate housing to the workers as cramped housing has an adverse effect upon the physical and mental conditions of workers and their families. Besides, overcrowding and insanitary living conditions make the workers prone to sickness and epidemics. Therefore, housing includes proper arrangement for water supply, drainage, roads, lighting, ventilation, sanitation etc. besides the provision of pleasant and convenient shelters.

There is a dynamic aspect to the problem of housing shortage in urban areas. Arun Kumar points out that 'the process of concentrated and rapid urbanisation in India is a result of migration of people from rural to urban

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areas. This is a consequence of lack of job opportunities in rural areas and of the pull of better infrastructure available in urban areas.)\(^1\)

The existing conditions of housing for the industrial workers are extremely unsatisfactory. While population in most of the industrial centres has increased tremendously, there is no corresponding growth of housing accommodation for the workers. According to the National Building Organisation there was a shortage of 2.19 crore houses in the country upto April 1982.)\(^2\)

For decades, the industrial workers, especially those in the lowest income range have lived in insanitary and overcrowded slums, which can be seen in the chawls of Bombay, Bastis of Calcutta, Cheries of Madras and Ahatas of Kanpur owned by private landlords.

There has been haphazard industrial development and expansion of factories in the very heart of the city of Kanpur which resulted in excessive overcrowding in the working class areas. Until recently, very little attention was paid to the problem of housing the large and rapidly

\(^1\) Kumar Arun, 'National Housing Policy - The Implications', Economic and Political Weekly, June 10, 1989, p. 1288.

\(^2\) T.N. Bhagoliwal, op.cit., p. 549.
increasing population in the city. With the result that the whole of Kanpur can be described “as one large slum with overcrowded, haphazardly built houses and buildings and like an unsightly octopus its tentacles are growing and spreading with an alarming fecundity”.

For the purpose of the present study, a survey was undertaken to study the living conditions of workers of Kanpur textile industry (Details of Survey in Appendix to thesis). Sixty questionnaires were filled in on the basis of a random sampling of households. Tabulation of the collected data gave the following information.

A large number of workers in the city live in ‘ahatas’ owned by private landlords where small dingy rooms are let out on high rents. Most of these ahatas are extremely insanitary and overcrowded and lack adequate sunshine and ventilation. The findings of our survey show that out of the 64 surveyed houses, 43 houses were privately rented, 9 houses were owned by the workers and another 9 houses were provided to the workers under the State Government/Co-operative Scheme. The remaining 3 houses were provided by the factories.

On enquiry from factory offices it was found that in Kanpur only J.K. Cotton Spinning and Weaving Mills Company Limited and the Elgin Mills Company Limited from amongst the ten textile factories, as a matter of policy provided houses to a small proportion of workers who are employed in their factories. The Government housing schemes have also not contributed much to the problem of housing of industrial workers in Kanpur (accounting for only 14 percent of worker’s housing in our survey). The houses provided by the Government and the Employers are comparatively better than the privately rented houses as they are more spacious and their sanitary conditions are also better compared to those prevailing in the houses owned by the private landlords. But they are so few in number that a very small minority of workers has benefited from them. The findings of the survey also showed that, despite the poor quality of housing accommodation, a substantial portion of workers’ pay is taken away in the form of rent. Where average income of workers of textile industry of Kanpur is Rs 1600 p.m., the amount of rent varies between Rs 50-250. Thus, workers living in privately owned houses have to pay 3 to 15 percent of the average wage as house rent, the average amounting to 7.8 percent. The rent of the factory owned houses and the Government houses are comparatively nominal as they are only 1.6 percent of the total average wage. This
shows a large variation in the rents charged. But the vast majority have to pay higher rents. A 1945 study\(^1\) pointed out that according to a pre-war estimate only 7 percent of the entire labour force in Kanpur could be accommodated in mill settlements. This proportion became even smaller as the employment in new establishments increased. Barely 5 percent of the labour force employed in textile industry are now provided factory houses according to our survey.

The data collected showed that most of the houses are extremely small in size. The total average area per housing unit was found to be 9 square feet which is below the minimum requirements of sanitation and healthy family life. The number of persons living in each housing with one and two rooms is 5 to 8 and the average number of persons living in each housing unit is 5. Only 22 out of the 64 houses covered have separate kitchen facility. Most families cook in the small yard and during rains in the living rooms.

The ventilation in the houses was found to be very poor. The average number of windows per housing unit is only 1. There are no ventilators in the houses, as a consequence they lack sufficient fresh air and sunlight.

\(^{1}\) 'Labour Housing in Cownpore', op.cit., p. 111.
Toilet facilities are also not available in a large number of houses. Out of 64 houses surveyed only 39 houses had toilet facility; and only 31 out of 64 had running water supply. Workers and their families have to fetch water from nearby handpumps or public taps. Drainage facility was found to be very poor. Although, most of the houses have drains for the outflow of dirty water, the water from several houses collects at one place. No municipal van comes to collect this water which forms a dirty pond. It makes the entire atmosphere unhealthy and unhygienic. The water logged areas become a breeding ground for mosquitoes and other pests.

Electric lighting is available in most of the houses. There are ceiling fans fitted in 86.6 percent of the houses surveyed.

The security arrangement is almost nil in the workers colonies and bastics. Although street lights are provided, most of these were not working, leaving the area in semi-darkness at night. Chowkidars are not employed by the landlords to provide security to the workers and their families.

Due to high rents and inadequate housing facilities in the city, many workers live in nearby
villages. They travel everyday from 4 to 6 kilometres to reach their working place, on their bicycles as no other cheap transport is available. Workers are thus tired even before they arrive at work and this affects their health and leads to absenteeism.

Working Conditions:

The efficiency of a worker depends directly both on his health and willingness to work. In the absence of desirable working conditions the worker finds his job very tough and his performance is adversely affected. The employer can also gain if productivity increases owing to greater efficiency as a result of better working conditions at the factory. Improvements in working conditions can eliminate the instability of labour force and thus can reduce absenteeism and increase labour turnover, to a considerable extent.

The term "working conditions" as used in the present study would cover sanitation, extent of dust and dirt in the working place, temperature and humidity, ventilation, space per worker inside the factory, safety measures like fencing of machines and various other amenities e.g. canteens, toilets and drinking water.
To ensure adequate safety measures and to safeguard health and welfare of the workers employed in factories, the Factories Act, 1948 specified the requirements regarding cleanliness, lighting, ventilation, etc. It provided for the disposal of wastes and effluents, the elimination of dust and fumes, the provision of drinking water facility, latrins, urinals and spittoons and also for the control of temperature at the place of work.

Section II of the Factories Act, 1948 provided for general cleanliness of the factory. It made it obligatory that dust, fumes and refuse should be removed daily by the factory owners; floors, staircases and passages should be cleaned regularly by sweeping and other effective means while washing of interior walls and roofs should be undertaken, at least once in 14 months.

The provisions have largely remained on paper. They have not only proved inadequate to serve the specific needs of the various factories but have also not been properly implemented. In some factories dirt and dust is generally found piled up in corners of the work place itself. No proper cleaning operations are attempted and even dustbins are not provided. In cotton textile mills cotton dust and fibres accumulate on walls, windows, ceilings, doors and on machines which make the work room very
dirty. Cotton fibres when inhaled damage the health of the workers. They are a constant health hazard and result in serious lung diseases.

It is very important that proper ventilation is provided in the factories and at the workplace as, "There is a definite and ascertainable ratio between the condition of the air and the efficiency of the worker who breathes it".\(^1\) Ventilation may either be natural i.e. provided by windows and ventilators, or artificial which means provision of fans and exhaust fans. Proper ventilation is needed especially in textile mills where work is carried on in a dusty and moist atmosphere. Provisions for maintaining a reasonable level of temperature in the workplace is also essential.

To study the working conditions in the cotton textile mills at Kanpur six factories (Elgin Mill No. 1 and 2, Kanpur Textiles Limited, Muir Mills, Swadeshi Cotton Mills and New Victoria Mills) were visited personally; two factories (Atherton West Company Limited and Laxmi Ratan Cotton Mills) were closed due to strike and the other

two (J.K. Manufacturers and J.K. Cotton Spinning and Weaving Mills) have been non-functional for a long period. Apart from this a questionnaire was filled in after interviewing 64 workers (See Appendix No.1 at end of thesis).

All the textile mills in Kanpur have ventilators in the workrooms. The temperature at the workplace in winters is bearable but during the summer season it becomes very hot especially in the spinning and weaving departments where the temperature is kept high to maintain the required levels of humidity under which the work has to be carried on. The temperature has to be maintained at between 85°F-100°F in spinning departments to 80°F-90°F in weaving departments.

The twin problems connected with the health and comfort of the textile workers, which have given rise to serious difficulties and which, until quite recently, baffled solution, relate to the fixing of proper ventilation and humidification standards. Raising the humidity level and at the same time maintaining comfort of the worker, largely depends upon the system of humidification employed in the factory. To meet this requirement section 15 of the Factories Act, 1948 provides for artificial humidification. The Act empowers the State Government to make rules for all factories in which the
humidity of the air is artificially increased i.e.

(i) to prescribe standards of humidification,
(ii) to regulate the method used for artificially increasing the humidity of the air,
(iii) direct prescribed tests for determining the humidity of the air to be correctly achieved and recorded,
(iv) prescribed methods to be adopted for securing adequate ventilation and cooling of the air in the work rooms.

To eliminate overcrowding, the Factories Act, 1948 prescribes that no room of any factory shall be overcrowded to an extent, injurious to the health of the workers. The Act further prescribes that in every work room each worker should be provided with a minimum space of 9.9 cubic metres on the commencement of the Act and 14.2 cubic metres in the factories built after the passing of the Factories Act, 1948.

Section 17 of the Act requires that in every part of a factory, where workers are working or passing through, there shall be provided and maintained sufficient and suitable lighting, natural or artificial or both. All the windows and skylights used for lighting should be kept clean and free from obstruction. Moreover, glare, either directly from a source of light or by reflection from a smooth or
polished surface and the formation of shadows, to such an extent as to cause eye strain or the risk of accident to any worker, have to be avoided. In addition to these provisions, the State Government is empowered to prescribe standards for sufficient and suitable lighting.

Section 18 of the Act requires effective and proper arrangements to be made to provide sufficient supply of drinking water at suitable points that are conveniently situated for all workers employed in a factory. It further provided that in every factory where more than 250 workers are employed, cool drinking water should be supplied during summer.

According to information collected in our survey the conditions in regard to humidity are very unsatisfactory in the cotton textile mills of Kanpur. Since the textile industry requires a humid atmosphere for the successful working of its various processes, especially to avoid breaking of cotton threads, humidity is maintained and the worker has to work in a highly humid atmosphere. Because of the dry climate of the State, artificial humidity has to be achieved in the textile factories at Kanpur by using different methods of humidification. For this purpose, the temperature is artificially increased and kept high. In
the Bombay cotton mills humidity is not maintained by artificial means as the climate itself is humid. Although some mills at Kanpur have installed air cooling plants and in others cool air is provided by fans and exhaust fans are also installed for the purpose (like Bahnson fans), a proper check is required to see that the temperature and humidity are being regulated properly, so as to reduce their adverse effect on the health and efficiency of the workers.

There are several other factors that are responsible for the pollution of atmosphere in the cotton textile factories. In the bleaching section some chemicals are used along with chlorine gas which is highly poisonous. In the process of spinning, the small particles of cotton fibres mix with the air and increase the pollution level.

Exact measurement of pollution levels in the textile factories at Kanpur has not been attempted by any agency or official commission. The safety officials contacted in this connection simply used the categories of very high, high and low levels of pollution.

The atmospheric pollution level was found to be low at 52.7 percent of the workplaces, (30 out of 57) high at 42 percent (24 out of 57) and very high at over 5 percent (3 out of 57), of the work places. The noise pollution level
was low at 52 percent (30 out of 58) of the workplaces (mainly spinning and carding departments) and high at nearly 45 percent (26 out of 58) (mainly in weaving department). It was very high at over 3 percent (2 out of 58) of the workplaces surveyed.

The atmospheric pollution was found to be 'very high' in finishing sections where boilers were fitted and chlorine and other chemicals were being used. It was high in spinning departments due mainly to cotton dust. In the weaving departments, the general pollution level was found to be low but the level of humidity was high.

The other provisions regarding lighting, space available per worker, hours of work and the rest intervals were generally satisfactory. The arrangement of lights in the factories was found to be satisfactory. In a four loom set, there was a double frame of tube lights fitted. Similarly, sufficient number of tube lights were also there in other place of work.

The space available to each worker working at machines was 250 square feet as required under the Factories Act.

The hours of work have been fixed as 8 hours per day with a rest interval of half an hour for all the
workers. There has been no change in hours of work during our period.

All the factories covered by our survey had canteens for their workers. But only tea was being sold at the canteens. There was no provision for supply any snacks or meals at subsidised rates.

**Safety of Workers at the Place of Work:**

Since the workers constitute the backbone of industrial development, it is very important to ensure their safety and well being. With rapid industrialisation, an increase in the use of sophisticated machinery and plants has occurred in recent years. But, "while technical progress in industry has made it possible to eliminate certain physically exacting jobs, it has also made work in industry more risky".¹ The workers' safety, therefore, needs more attention. The precautionary measures, technical knowledge, and the inculcation of safety consciousness among workers themselves can help in preventing industrial accidents which result in considerable loss of life and property.

An industrial accident has been defined by the Factories Act, 1948 as "an occurrence in an industrial

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establishment causing bodily injury to a person which makes him unfit to resume his duties in the next 48 hours".\(^1\) Under the Workmen’s Compensation Act, 1923, an industrial injury has been defined as "a personal injury to an employee which has been caused by an accident or an occupational disease and which arises out of and in the course of employment".\(^2\) This definition specifies that the injury or accident should be at the work place, for example if the worker meets with an accident on the road while going to work, it will not be included in the industrial injury and he will not get compensation.

An accident cannot always be called totally unexpected. S.N. Sharma, in his study of industrial accidents, has pointed out that about 90 percent of the accidents are avoidable. Of the avoidable accidents, 20 percent have been found to be the result of faulty conditions, 20 percent due to faculty behaviour and 60 percent due to a combination of these two causes.\(^3\) Therefore, accidents can be reduced with the control of

2. Ibid.
environment and behaviour. Other investigations have also revealed that majority of the accidents are of a preventable type and are likely to occur during the initial period of employment when the individual worker has not learnt to protect himself against the dangers of his environment, or machinery on which he is working.

There can be many causes of accidents. Absence of adequate lighting, ventilation, absence of safety guards over machines, absence of safety devices, absence of proper placing of men and machines and lack of safety consciousness on the part of both workers and management may lead to accidents in factories.

There should be proper lighting, especially in textile mills, where night shifts are in operation and proper ventilation is required to reduce the atmospheric pollution level and excess heat in the work room i.e. the control of temperature at the work place. These are required for the safety of the workers while working. This was emphasised in the main report of the Rege Committee (1944-1946). The Committee expressed dissatisfaction with the situation then prevailing, while considering working

conditions in general under the three main heads i.e. ventilation, temperature and lighting. Taking note of the evil effects of deficient ventilation, natural or artificial, it referred to the difficult conditions of work especially in the old textile mills. These had unsuitable old structures which had close proximity to other buildings, dirty windows panes, walls and ceiling.

The working conditions have been improved after the passage of the Factories Act, 1948. In order to prevent accidents the Government laid down various safety measures under the Factories Act, 1948. It required that in every factory, every dangerous part of the machinery must be securely fenced by safeguards of substantial construction while the machines were in motion or use.¹

The act prohibited the employment of a young person on dangerous machines unless he has been fully instructed as to the dangers arising from working at the machine and has received sufficient training for working at the machine or is under adequate supervision of a person who has a thorough knowledge about the particular machines.

The act also prohibited employment of women and

¹ Section 21(1), The Factories Act, 1948.
children in any part of the factory for pressing cotton where the cotton opener is at work and enjoins precautions against dangerous fumes and gases. Safety measures are to be adopted in hoists and lifts used for carrying loads and persons in a factory.

In order to prevent accidents, the provision for the appointment of Safety Officers was added to the Factories Act, 1948, in the year 1976. In every factory where one thousand or more workers are employed, the State Government, by notification in the Official Gazette, is required to employ such number of safety officers as specified in that notification.¹

The Workmen’s Compensation Act was passed in 1923 to compensate the worker and his family for loss of earning capacity due to injury or disability of a temporary or permanent nature. The act was substantially amended in 1959. The compensation payable is in the form of fortnightly payments commencing from the eighth day of disablement. A lump sum is payable in the case of permanent disablement or death due to accident. The amount of compensation payable cannot be set off against any other claim. Each State has

¹ Section 40-B, (1), The Factories Act, 1948.
Commissioners responsible for workmen's compensation; they settle claims and adjudicate in disputed cases.

According to the Act, as enforced during our period (1970-1990), the amount of compensation in cases of permanent total disablement was to be equal to 50 percent of the monthly wages of the injured worker multiplied by the 'relevant factor' or an amount of Rs 24,000, which whichever is more. In case of death due to accident the amount of compensation was to be equal to 40 percent of the monthly wages of the worker multiplied by the 'relevant factor' or an amount of Rs 20,000 whichever is more; in addition to this the nearest of kin is to be given employment in the factory.

In the textile industry at Kanpur the amount of compensation paid to claimants or their heirs differed from case to case, according to circumstances. A study of different individual cases in the factories revealed that, broadly speaking, the terms of the Compensation Act were being followed. In almost every case where the death occurred within the factory funeral expenses were sanctioned. In Kanpur Textile Mills, Govind Prasad died on 9.10.1979, while on duty in Weaving Preparatory. Death was, probably, due to tuberculosis. The Mills paid Rs 500 for his funeral expenses. When Jaisua, Sweeper in Elgin Mill (No.1), died on
12.5.1984, Rs 2000 were sanctioned for funeral expenses, and job given to his widow. But there was apparently a dispute about the liability for the accident in which he had lost his life and so the quantum of compensation was to be fixed by a Bipartite Committee. In 1983, in Kanpur Textiles Ltd., Kaleshwar died in the Weaving Department on 15.3.1983 and Dhani Ram in the Reeling Department on 12.6.1983, the liability for the fatal accidents not being disputed. In each case, Rs 2000 were paid for funeral expenses and Rs 35,000 as compensation to the family of the deceased. Kaleshwar’s son was promised employment, though such a promise does not appear to have been made to any member of Dhani Ram’s family.

With the regulation of working conditions under the Factories Act, 1948, the number of accidents in the textile factories act Kanpur has been reduced, in recent years. The appointment of safety officers in the factories under the Act has played an important role in checking accidents in factories.

Table 5.1 given statistics relating to industrial injuries sustained by the textile workers at Kanpur during 1970-1990. The data was acquired from the Factory Records but was available for only 6 out of 10 factories. There are
<table>
<thead>
<tr>
<th>Year</th>
<th>Elgin Mill No. 1</th>
<th>Elgin Mill No. 2</th>
<th>Kanpur Textiles</th>
<th>Swadeshi Cotton Mills</th>
<th>The Muir Mills</th>
<th>New Victoria Mills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>N A</td>
<td>2</td>
<td>N A</td>
<td>290</td>
<td>Nil</td>
<td>290</td>
</tr>
<tr>
<td>1980</td>
<td>4872</td>
<td>2</td>
<td>4874</td>
<td>324</td>
<td>1</td>
<td>325</td>
</tr>
<tr>
<td>1981</td>
<td>5921</td>
<td>1</td>
<td>5822</td>
<td>541</td>
<td>Nil</td>
<td>341</td>
</tr>
<tr>
<td>1982</td>
<td>5803</td>
<td>1</td>
<td>5804</td>
<td>991</td>
<td>3</td>
<td>994</td>
</tr>
<tr>
<td>1983</td>
<td>6786</td>
<td>1</td>
<td>6787</td>
<td>1,125</td>
<td>Nil</td>
<td>1,125</td>
</tr>
<tr>
<td>1984</td>
<td>6219</td>
<td>3</td>
<td>6222</td>
<td>3,210</td>
<td>1</td>
<td>3,211</td>
</tr>
<tr>
<td>1985</td>
<td>3207</td>
<td>Nil</td>
<td>3207</td>
<td>5,500</td>
<td>Nil</td>
<td>5,500</td>
</tr>
<tr>
<td>1986</td>
<td>1437</td>
<td>Nil</td>
<td>1437</td>
<td>666</td>
<td>Nil</td>
<td>666</td>
</tr>
<tr>
<td>1987</td>
<td>1813</td>
<td>Nil</td>
<td>1813</td>
<td>629</td>
<td>Nil</td>
<td>629</td>
</tr>
<tr>
<td>1988</td>
<td>380</td>
<td>Nil</td>
<td>380</td>
<td>721</td>
<td>Nil</td>
<td>721</td>
</tr>
<tr>
<td>1989</td>
<td>381</td>
<td>Nil</td>
<td>381</td>
<td>721</td>
<td>Nil</td>
<td>721</td>
</tr>
<tr>
<td>1990</td>
<td>507</td>
<td>Nil</td>
<td>507</td>
<td>542</td>
<td>1</td>
<td>543</td>
</tr>
</tbody>
</table>

Source: Yearly Records Kept by Factories Under the Employees' Insurance Scheme
* N A  Not Available
large gaps in the data. It was not available for several years in case of 5 factories. Only one Factory Record gave complete data.

The injuries resulting from accidents are classified under 'fatal' and 'non-fatal' injuries. The table shows that the number of non-fatal injuries has decreased between 1980-1990 although it was still quite high between 1980-1984. This was so in all the six mills.

Detailed and continuous data on injuries at workplace was not available in the Factory Records for the period upto 1980. The Labour Commissioner's Office, Kanpur, also could not provide any information in this regard. Only the Elgin Mill No. 2, could provide information. However, for the period 1980-1990 data was available for three textile mills (Elgin Mill Nos. 1 & 2 and the Muir Mill). Therefore, it was on the basis of this small sample that the following table (No. 5.2) has been prepared.

While the total number of annual fatal accidents has varied between 1 and 4 in the three mills, between 1980 and 1990 non-fatal injuries have gone up from 6,850 in 1980 to 11,144 in 1984. Since then, the number of such injuries has continuously declined.
Table 5.2: Number of Injuries in Three Cotton Textile Mills at Kanpur 1980-1990.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatal</th>
<th>Non-Fatal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>3</td>
<td>6850</td>
<td>6853</td>
</tr>
<tr>
<td>1981</td>
<td>1</td>
<td>7758</td>
<td>7759</td>
</tr>
<tr>
<td>1982</td>
<td>4</td>
<td>8750</td>
<td>8754</td>
</tr>
<tr>
<td>1983</td>
<td>3</td>
<td>9666</td>
<td>9669</td>
</tr>
<tr>
<td>1984</td>
<td>3</td>
<td>11144</td>
<td>11147</td>
</tr>
<tr>
<td>1985</td>
<td>1</td>
<td>10110</td>
<td>10111</td>
</tr>
<tr>
<td>1986</td>
<td>1</td>
<td>2601</td>
<td>2602</td>
</tr>
<tr>
<td>1987</td>
<td>nil</td>
<td>3180</td>
<td>3180</td>
</tr>
<tr>
<td>1988</td>
<td>2</td>
<td>1389</td>
<td>1391</td>
</tr>
<tr>
<td>1989</td>
<td>nil</td>
<td>1418</td>
<td>1418</td>
</tr>
<tr>
<td>1990</td>
<td>1</td>
<td>1445</td>
<td>1446</td>
</tr>
</tbody>
</table>

Source: Computed from Table 5.1
Each factory had a small dispensary. In most of these dispensaries the shelves contained dressing material and a few medicines. On enquiry it was found that there was no full-time doctor or nurse on duty. Only a compounder's services were available for providing first-aid to the worker in case of injury. There was no arrangement, in either of the factories visited, to take the seriously injured workers to hospital. This was usually left to the relatives and friends of the injured worker and caused unnecessary delay in securing proper medical attention.