



## **WORK ENVIRONMENT OF CONSTRUCTION WORKERS: A STUDY IN MANGALORE CITY**

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### **Abstract**

*In India, the construction industry employs a large number of people. It has become a significant source of income for those involved. Because of the industry's diverse nature, it accepts all types of workers, including skilled and unskilled workers, and it does not discriminate when involving workers in it. Though the industry generates employment, the work involved is riskier, and workers must be more cautious while working. The workers involved are mostly illiterate migrants who are unconcerned about their safety or the working environment. The work in which construction workers are covered in heavy dust, noise, and the possibility of accidents, among other things. Most construction workers and employers are unconcerned about the consequences of their actions. In this context, the current study examines the work Environment and facilities available for construction workers at various work sites in Mangalore City.*

**Key words: Construction Worker, Construction Industry, Working Environment.**

### **Introduction**

One of India's most important industries is construction (Hall, 2017). It employs around 51 million people, the second largest employer and contributes around 9% to the country's GDP. It is an important contributor to the development process. As an unorganised sector, the workforce is vulnerable to workplace safety and health hazards (Hall, 2017). Furthermore, the vast majority of workers are illiterate, putting them at risk of exploitation (Weekly, 2008). There are both skilled and unskilled construction workers involved in the construction work. The majority of workers in this industry are on a temporary basis. Construction workers face a variety of challenges, including unstable employment, low pay, and shifting workplaces (Bhardwaj, 2016).

According to the International Labour Organization, construction work is complex. The majority of the construction work is manual or physical. The work is dangerous and filthy. Good welfare measures help to keep them healthy, which improves their productivity (Gopalakrishnan & Brindha, 2017). Employers should consider the welfare of their employees by providing a better working environment so that employees can focus on doing their best work, which will help the industry by increase productivity. Because most of the work site where construction workers working are particularly vulnerable due to poor working conditions. The job is always temporary, and the relationship between the employer and the employee is fragile and fleeting. Exposure to risk is part of the work. Workers suffer from a lack of safety, health, and welfare facilities, as well as unpredictable working hours (Prasad, Rao, & Nagesha, 2011).

Construction workers' living conditions are appalling, with a lack of basic amenities to keep their living standards up (Nandimath & Rao, 2020) and these workers come from poor families (Devi, 2019) Handling various construction materials and exposure to harsh environmental conditions such as sun, rain, and so on are also hazards. Workers' health is negatively affected by exposure to such hazardous working conditions. It causes headaches, backaches, joint pains, and skin rashes among these workers. Boredom



is brought on by the repetitive nature of the job. Low nutrition and strenuous physical labour exacerbate existing health issues. Workers are forced into debt as a result of the poor economy and inability to pay for health care(Nandimath & Rao, 2020).

The majority of construction workers are not paid minimum wage, and if they work extra hours, they are not compensated accordingly(D.Kumar, 2013). Construction work may be halted due to inclement weather, but workers are rarely compensated. Apart from the size and location of the construction site, poverty, illiteracy, and a lack of awareness of their rights and potentials all contribute to their inability to organise themselves(K.Tamilselvan, R.Ranjani, & P.Thangaraj, 2016). The present study aims to analyse the working environment and conditions of workers at working sites. Further, the study will also look into the facilities available at various construction sites in Mangalore city.

### Objectives of the study

1. To study the working environment of construction workers in Mangalore city.
2. To analyse the facilities available for construction workers at construction sites in Mangalore city.

### Methodology

The study has selected five construction sites from Mangalore city, and the names of the construction sites are not mentioned due to their instructions. From each site, 25 workers were selected, so the number of respondents was 125. Primary data was collected through an interview schedule, where each respondent was asked to answer the questions. Collected data was analysed through percentage method. The sampling technique used here was convenience sampling. It is a non-probability technique which is used to select the sample for the convenience of accessibility.

### Results and Discussion

**Table .1 Demographic Profiles of Respondents**

Variables	Classification	Frequency n =120	Percentage
Gender Distribution	Male	91	72.8
	Female	34	27.2
Age of the respondents	Less than 25	20	16
	26-35	39	31.2
	36-45	59	47.2
	Above 45	7	5.6
Nature of occupation	Mason	26	20.8
	Concrete worker	32	25.6
	Painter	19	15.2
	Helper	48	38.4
Type of work site	Small	15	12
	Medium	71	56.8
	Large	39	31.2

**Source: Survey Data**



The above table revealed that the maximum number of males was engaged as construction workers compared to female members. 91 (72.8%) were male and 34 (27.2%) were female, engaged in the construction activity. The majority of the 59 (47.2%) of workers are between the ages of 36 and 45, which is higher than the 39 (31.2%) of those between the ages of 26 and 35. The greater number of workers engaged themselves as helpers on the construction site to assist other types of work at the work site. Where 48 (38.4%) were helpers, 32 (25.6%) were concrete workers, and 26 (20.8%) were masons, the remaining 19 (15.2%) were working as painters. Around 71 (56.8%) of the respondents were working in medium-sized construction sites, which was higher than the 39 (31.1%) of workers working in large construction sites, and 15 (12%) of the respondents were working in the small construction sites in Mangalore city.

**Table.2 Educational Qualification**

Qualification	Frequency n=125	Percentage
Illiterate	60	48
1 <sup>st</sup> standard to 10 <sup>th</sup>	57	45.6
PUC	8	6.4

**Source: Survey Data**

Table 2.revealed that the majority of construction workers were illiterate, which made them unaware of their rights and the facilities available for them, which also caused them to remain unorganised. A maximum of 60 (48%) of the respondents were illiterate, 57 (45.6%) belonged to primary and high school, and 8 (6.4%) passed PUC.

### Working conditions

The construction industry has extremely dangerous and filthy work. Construction workers do not work in a stable or protected environment like those in other manufacturing sectors. The work site is constantly changing, and the workers must work outside in the hot sun(Gopalakrishnan & Brindha, 2017) which calls for the employer to pay more attention to making sure that the workers have access to basic facilities at work sites as well as a good and safe working environment. The following section of this aspect will analyze the facilities that are offered at 5 construction sites in Mangalore city.

**Table.3 Opinion on Exposed to Noise and Dust**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	79	63.2
Agree	37	29.6
Neutral	-	-
Disagree	-	-
Strongly Disagree	9	7.2

**Source: Survey data**

From the above table, it can be inferred that the working environment at the work site was exposed to noise and dust. 79 (63.2%) strongly agreed that they are exposed to noise and dust at work. 37 (29.6%) agreed and 9 (7.2%) strongly disagree.



**Table.4 Opinion on experience with the accident and near misses**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	30	24
Agree	22	17.6
Neutral	-	-
Disagree	11	8.8
Strongly Disagree	62	49.6

**Source: Survey data**

From the above table, 62 (49.6%) of the respondents strongly disagreed that they have not experienced accidents and near-misses at work, which is higher than the 30 (24%) who strongly agreed with it. For the experience of accidents at the work site, 22 (17.6%) were agreed upon and 11 (8.8%) were disagreed upon.

**Table.5, Opinion on suffered a work-related injury at work**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	77	61.6
Agree	10	8
Neutral	12	9.6
Disagree	5	4
Strongly Disagree	21	16.8

**Source: Survey Data**

From the above table, it can be inferred that 77 (61.6%) of the workers strongly agreed that they suffered from the work-related injury. 21 (16.8%) strongly disagreed and 10 agreed. A further 12 (9.56%) remained neutral and 5 (4.4%) disagreed.

**Table.6 Opinion on use of protective equipment at work site**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	13	10.4
Agree	11	8.8
Neutral	-	-
Disagree	12	9.6
Strongly Disagree	101	80.8

**Source: Survey Data**

From table 5, it has been analysed that 101 (80.8%) of the respondents strongly disagreed that they have used any protective equipment at work while working, which was higher than the 13 (10.4%) of the respondents who strongly agreed. 12 (9.6%) disagreed and 11 (8.8%) agreed.



**Table.7 Opinion on experience of injury at work**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	79	63.2
Agree	37	29.6
Neutral	-	-
Disagree	-	-
Strongly Disagree	9	7.2

**Source: Survey Data**

According to the above table, 79 (63.2%) of respondents strongly agreed that they had been injured at work. 37 (29.65%) strongly agreed, which was higher than those who were 9 (7.2%) strongly disagreed with the experience of injury at the worksite.

**Table.8 Opinion on Co-operation between workers and Employers**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	78	62.4
Agree	12	9.6
Neutral	22	17.6
Disagree	-	-
Strongly Disagree	13	10.4

**Source: Survey Data**

From the above table, it shows that 78 (62.4%) of the respondents strongly agreed that there was good cooperation between the workers and employers, while 22 (17.6%) remained neutral on this. 12 (9.6%) agreed and 13 (10.4%) strongly disagreed with the co-operation between them.

**Table.9 Opinion on Industry provides a safe and healthy working Environment**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	19	15.2
Agree	53	42.4
Neutral	-	-
Disagree	16	12.8
Strongly Disagree	37	29.6

**Source: Survey Data**

According to the above table, 53 (42.4%) of respondents agreed that they had provided a safe and healthy working environment, while 37 (29.6%) strongly disagreed. Further, 19 (15.2%) of the respondents strongly agreed and 16 (12.8%) disagreed.



**Table.10 Opinion on Effect of Working Environment on work quality**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	79	63.2
Agree	23	18.4
Neutral	1	0.8
Disagree	-	-
Strongly Disagree	22	17.6

**Source: Survey Data**

According to the above table, 79 (63.2%) of workers strongly agreed that their working environment has an impact on their work quality, while 23 (18.4%) agreed. Where 22 (17.6%) of the respondents strongly disagreed and 1 (0.8%) of the respondents remained neutral.

**Table .11 Opinions on flexible and modified working hours**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	18	14.4
Agree	95	76
Neutral	-	-
Disagree	-	-
Strongly Disagree	12	9.6

**Source: Survey Data**

According to the above table, 95 (76%) of respondents agreed that they have provided flexible and modified working hours at their workplace, and 18 (14.4%) strongly agreed. 12(9.6%) of the respondents strongly disagreed with the flexible and modified working hours.

**Table.12 Opinion on pay for night shift with extra wages**

5-Point Scale	Frequency n=120	Percentage
Strongly Agree	12	9.6
Agree	77	61.6
Neutral	12	9.6
Disagree	-	-
Strongly Disagree	24	19.2

**Source: Survey Data**

Table 10.shows that 77 (61.6%) of the respondents agreed that they are paid for the night shift with an extra wage, while 12 (9.6%) of the respondents strongly agreed. Where 24 (19.2%) of the respondents strongly disagreed, 12 (9.6%) remained neutral.





## Major Findings

The majority of construction workers were found to be illiterate, with some having only completed primary and secondary school. Because of their poverty, they had no choice but to drop out of school and work in the construction industry. The main reason for working in construction in Mangalore city was to earn a higher wage than the government's minimum wage, which attracted a larger number of workers. As a result, the majority of workers were unconcerned about their health at work and were willing to work in any condition on the job site. It was discovered that the majority of workers strongly agree that they work in a dusty and noisy environment with no safety equipment. They also had to deal with work-related injuries on the job. Following this, 53 (42.4%) of the respondents agreed that they work in a safe and healthy environment. This demonstrates the workers' innocence. The majority of respondents (79, or 63.2 percent) agreed that their work environment has an impact on their work quality on the job. It was also agreed that they would be given flexible and modified work hours, as well as extra pay if they worked the night shift. The overall picture of the study shows that, in addition to a safe and healthy working environment, workers are treated well by their employers and are paid a fair wage, which helps the workers to make ends meet.

## Conclusion

Construction workers are the most important agents of development in any country. It is critical to concentrate on their well-being. Increasing workers' wages does not improve their working conditions. It is necessary to provide better working environment and make them aware of the other facilities available to them in order for them to live a decent life. Employers should take the necessary precautions by providing workers with safety equipment and informing them of its importance, which will help them avoid serious injuries and accidents at the work site.

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