



Transit Shelters of Construction Workers: a Review

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TRANSIT SHELTERS OF CONSTRUCTION WORKERS : A Review

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Abstract— The construction sector is one of the largest seasonal employment providers in India, next only to agriculture. The sector is highly unorganized. The laborers have maximum transit because of the nature of their work. Labour migration from rural to urban areas is a feature of developing countries. Mumbai, like many growing and flourishing cities, has been attracting a large number of migrants from all over the country. This group of migrant workers comes to cities for a longer period in search of work and stays on the construction sites till the site is handed over. The present study is a review of past research work of onsite living conditions of construction workers. The major focus of the study is to identify the key factors related to the accommodation facilities which affect the living condition of onsite construction workers.

Keywords— construction industry, onsite construction workers, accommodation, living conditions, health and hygiene.

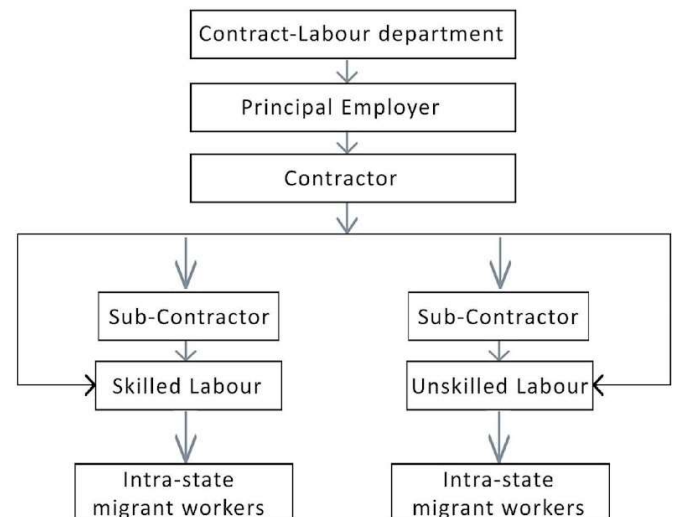
I. INTRODUCTION

Modernization has paved a way for the construction industry. With the rapid urbanization the demand for housing has emerged which has boosted the growth of the construction industry. The expanding and growing construction sector resulted in employment opportunities which have drawn a larger number of construction workers in this sector.

Construction workers are laborers who migrate from different regions and States leaving their native villages in search of a job. Of the total estimated 15.2 million laborers, more than 36.2 percent are employed in the construction industry alone and only 9.8 million construction workers of the total 32 million workers are registered in the country. (Human resources and skill

requirements in the building construction and real estate sector, 2013-2017)

The laborers are hired under a contracting system in the construction sector. The contractor either hires workers directly or further hires subcontractors who then hire the workers. The principal leader therefore is the only one who is responsible to the labor department for the fulfillment of all the specified norms and legalities underneath the relevant Acts. (Kundu, January-June 2014).



These hired workers travel from one area of work to another area along with their families and live in a place, which is provided by the contractor of the construction company by building onsite labor camps which are temporary in nature. The labor camps are

made up of individual hutments made of tin sheets where living conditions are so poor that they deprive the workers of basic facilities and human dignity. The sanitation hygiene of the construction site and the laborers hutments are sometimes of sub-standard quality. The rate at which the development occurs comes at a cost; the construction industry thrives on exploitation of migrant construction workers by maintaining a low standard of their accommodation. Laws and regulations exist for the rights of construction workers, but are many times overlooked by the authorities.

II. DOCUMENTING THE EXISTING CONDITIONS

The parameters of better Living conditions for workers includes accommodation facilities, on site amenities, hygiene and safety conditions.

- Accommodation facilities

A major problem faced by the migrants in the city is housing, thus accommodation facilities should be set up according to norms and rules which should fulfill the basic requirements of livable conditions.

The study carried out by the interview process to understand the onsite living conditions of the migrant workers mentioned that the hutments provided by the contractor aren't safe stay and a sense of insecurity prevails among the workers. The housing conditions of the workers lead them to an unhealthy condition as a result of the lack of protection from adversaries like extreme climate, dust, and mosquitoes. (Piu Mukherjee, September,2011) .

By surveying 12 construction sites in Karnataka through personal and focused group interviews of 363 construction workers the researcher concluded that about 5-6 workers live in one hutment, which are made with plastic sheets having no opening for ventilation. This leads to uncomfortable and claustrophobic conditions. Out of the 12 sites visited there was electricity only in 3 sites provided by the construction

company, but none of them had provided sanitation and bathroom facilities. (Kundu, January-June 2014). Another survey of construction sites in Bengaluru was conducted which stated that the construction workers' huts were dirty and overcrowded, prone to mosquitoes and other pests. The temporary sheds were not provided with electricity power, and had poor ventilation. (Muniraju, March 2015).

Similarly the study on housing quality of the construction workers in Ahmedabad identified two on-site settlement typologies (i) shelters on private-sector construction sites were made entirely from tin sheets which are prone to overheating, leading to extreme discomfort and posing health risks and (ii) shelters on public-sector construction sites which consist of brick walls with tin sheet roofing, these were less vulnerable to weather. (Renu Desai, December 2014)

- Amenities, hygiene and Safety

Portable drinking water, bathing facilities, toilets and cooking facilities comprise the basic amenities for onsite settlements of workers. Migrant workers narrated about circumstances of poor sanitation facilities which make them ill. According to them, the lavatories they use were in very unhygienic condition and their complaints regarding this were attended with an undue delay. (Piu Mukherjee, September,2011) Research revealed that drinking water facilities were provided by many but the bathing did not exist. Many residents build temporary enclosures for bathing, thus women face privacy issues which require them to bathe early in the morning or at night when it is dark. Temporary toilets were made but were not maintained leading to unhygienic conditions. Overcrowding, uncontrolled surface water drainage and poor rubbish disposal are some of the conditions which also lead to poor hygiene. The amenities such as canteen mess for workers to have their meals were not provided and eating outdoors,

exposed them to dust which may lead to unhealthy conditions. (Renu Desai, December 2014)

Studies have shown that there is a total negligence either by contractors and employers on matters related to safety factors. It was revealed that only 10% of workers were provided with safety equipment. (Muniraju, March 2015). A survey carried out at two construction sites in Guwahati for the purpose of studying the existing living conditions of construction workers revealed that the toilets and related facilities provided were miserable. A few Katcha latrines were erected for them in a corner of the work-site. A hand pump was installed very near to their huts and its water was used for all purposes. The worksite was fenced with high brick walls but there was no security arrangement. Similarly in one of the construction sites in Shillong the survey found that the accommodation for the workers was made of straw walls and roofing which led to discomfort due to climatic conditions and water was supplied for only one-hour in the morning and one-hour in the evening. (Deshkal society, 2013).

III. GRIEVANCES OF CONSTRUCTION WORKERS (CONTEXT-LIVING)

The construction workers undergo various problems such as unsafe working environment, occupational diseases, injuries, ignorance and illiteracy, absence of social security, improper implementation of labour law, and lack of labour welfare activities and are uncomfortable due to noise and temperature.

Study on problems faced by workers has been carried out by many researchers which focused on the problems mentioned above. One such study conducted in Kanyakumari district by selecting 25 samples randomly, a total of 100 respondents were interviewed who were engaged in different construction activities such as constructing, carpentering, painting, plumbing and helping. The study concluded the problems faced by the

workers in the construction industry at micro level. Problems such as lack of safe working conditions causes labour absenteeism, allergy and other health hazards. The study found that out of the 100 total respondents, 57% have this problem. The occupational diseases like cough, asthma and body pain because the construction workers work in unsafe conditions. (K.Ponnaian, November 2016). A very common health problem that these migrants face is malaria. Only when the construction project is towards completion, the mosquito problem reduces significantly. Hence workers are at high risk of malaria, dengue and other diseases due to poor sanitation and unhygienic drinking water. (Kulkarni, April 2007).

Another study that looked into the effects of noise on the hearing capacity and working efficiency of construction workers. It was analyzed and concluded that the noise causes giddiness, vibration and loss of hearing. Moreover, a sudden and violent noise shocks the workers. Out of the total 100 respondents 49 % suffer from noise pollution. Also there is a total absence of social security schemes in the construction sector which affects the hope of the workers and discourages them. It was seen that out of the total 100 respondents, 93 per cent suffer due to lack of social security. Thus, this problem cannot be neglected in the construction industry. (K.Ponnaian, November 2016) The literacy rate in this sector is low, Hence, the workers are not much aware of the rules and regulations of their working conditions. Besides this the construction workers have no social security & benefits in terms of Labor welfare measures & provisions. They don't have provisions like pension and insurance schemes, accident and death claims, financial aid for children's education and medical needs. (Deshkal society, 2013). These problems lower the efficiency and working productivity of workers which leads to project delay, causing monetary loss.

IV. ACTS AND GUIDELINES FOR CONSTRUCTION WORKERS

The construction workers are unskilled, migrant and socially backward. With a view to regularizing the working conditions, safety and health, welfare measures, etc. Acts such as the Building & Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996; and The Building & Other Construction Workers' Welfare Cess Act, 1996 are enacted by central government of India.

Under the Building and Other Construction Workers Act 1996 (BOCW) the contractor has to provide various amenities to the workers but the survey done by (Muniraju, March 2015) stated negligence of violation of the norms. The survey reveals the majority of the 81% are not members of any welfare scheme. The discussion with stakeholders provided the insights that the provisions of BOCW Act often led to harassment of contractors by the concerned government officials. As per the provisions of the Building & Other Construction Workers' Welfare Cess Act, 1996, 1% cess collected from the employer on construction projects costing over Rs. 10 lakhs. The money was to be used for Welfare Boards. However throughout the discussions it had been reflected that although the money was being collected from the builders/contractors, yet it had been not utilized for the welfare of the workers. It might have been lying unused. (P.K. Saxena, 2013)

The Contract Labour (Regulation and Abolition) Act was enacted in 1970. Under this act provisions are made for the welfare and health of labour by establishment of canteens, restrooms facilities, first aid, wholesome drinking water, latrines and urinals. In case of failure on the part of the contractor to provide such facilities, the Principal Employer is considered as responsible and he has to provide the amenities. (Labour welfare, 2011). The state level labour agency has the power to take action against the contractor and enforce the terms of contract but itself it does not utilize the given powers. More typically than not the review reports of the labour

wing are not acted upon. Thus the agency lacks the power to execute the labour laws. (Deshkal society, 2013).

Other than the acts amended by state and central government there are some guidelines framed for the labour camps. Major categories covered under the guidelines includes site selection, toilet facilities and hygiene. The guideline states that the construction camps shall be located at least 200 - 500 m away from habitations at identified sites. All sites used for camps must be adequately drained. If located near any water surface it shall be subjected to mosquito control measures. Also the drainage from and through the camps should not endanger any domestic or public water supply. There shall be adequate supply of water close to latrines and urinals. Toilet facilities adequate for the capacity of the camp must be provided. Each toilet room must be located so as to be accessible, without any individual passing through any sleeping room. For multifamily shelters where the toilets are shared, separated toilets must be provided for each sex. At all camps, good and sufficient water supply shall be maintained to eliminate chances of waterborne diseases to ensure the health and hygiene of the workers. (The Department of Science, 2017)

V. CONCLUSION

In India, Most of the workers are migrants who come alone or along with their family members in search of work. The studies show that though the contribution of migrant construction workers to the construction sector and to increase the economic growth is immense, they remain largely invisible in terms of better living conditions. These workers are provided with onsite temporary shelters which have poor living conditions and lack hygiene. The worker's job is not easy as they have to face several adverse problems because of the unsafe working environment, occupational diseases and injuries. More research is required in this area to suggest practical solutions to the existing problems of housing quality, comfortable living conditions and on

health related issues mentioned above. A need exists for trying to enhance the accommodation facilities and condition of onsite construction workers. Most of them are illiterate hence are not aware of their rights needed for a decent living. The situation only can be modified with the government intervention and by implementing the guidelines strictly. The contractors ought to be checked from time to time and there should be a positive impact of unions and labour Acts on the workers.

A solution for providing appropriate shelters must be worked on which will not only provide enhanced living spaces but can attain the comfortable living , hygiene and safety conditions for the workers .The design of shelter is required to be context specific for climate. Once the construction project is over and construction workers relocate, the workers community shall disassemble the shelters and use them for other construction projects. The materials used for building shelters shall either be reused in a new project, or will be recycled. Thus the shelter itself shall be self-sufficient and viable for both contractors and workers.

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