



ISSN NO. 2320-5407

Journal homepage: <http://www.journalijar.com>

INTERNATIONAL JOURNAL
OF ADVANCED RESEARCH

RESEARCH ARTICLE

SOCIO-ECONOMIC CONDITION OF CONSTRUCTION WORKERS: A CASE STUDY

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Manuscript Info**Manuscript History:**

Received: 15 August 2015

Final Accepted: 22 September 2015

Published Online: October 2015

Key words:

Construction workers, socio-economic condition, Aligarh city.

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The present research paper is an attempt to analyze the socio-economic conditions of construction workers and to find out causes that compel the construction workers to engage themselves in this profession. The adverse effects of this profession on the health of the construction workers, their problems and the remedial measures for these problems have also been taken into account. The study is based on primary data collected through the field survey and direct questionnaire to the respondents in Aligarh city. The survey was carried out during the month of March 2014. The overall analysis of the study shows that construction workers are the weaker section of the society and live in abysmal conditions but play a pivotal role for the infrastructural development of the city. Nearly three fourth of them are married and more than 50 percent of construction workers are illiterates. They work on contract basis and most of them work more than 8 hours daily but earn only 200 to 250 rupees. They are also unaware about the government schemes for poverty alleviation. Moreover, their accessibility in the basic amenities and infrastructure facilities is also very poor.

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INTRODUCTION

A Construction worker is someone whose job is to work on a construction site such as house, bridge, road, railways, tunnel, dock, schools etc. that are being built (Shah, 2007). Construction industry plays an important role in the modernization and industrialization of the city, and construction labourers form 7.5 percent of the world labor force (Tiwari R.R., 2010). Now a days, small towns and cities have become more urbanized and, the construction sector too has got a boost (Kumar, M., 2013). Construction work is an important source of employment for the poorest of the poor and unskilled workers in Indian cities (Karmayog, 2010). They come under the informal sector where there is no security of jobs, education, health, and other basic facilities (Dhas, A.C. & Helen, 2011). Several factors make them vulnerable like temporary nature of employment, fragile relationship between employer-employee and risk of life and limb due to lack of facilities related to safety, health, and welfare (Kulkarni, G. K., 2007).

Construction workers construct houses but they don't have their own houses because of the nature of their work. They are one of such migratory groups who move from one construction site to another construction site as per direction of the contractor and they live in the temporary settlement along the construction site. They usually belong to the deprived section of the population and most of them are illiterate. Being migrants, they do not get registered and hence are devoid of basic government facilities (Parham, 2009).

Construction workers work under the hazardous conditions and open environment. They had to work on an average for about 10 hours per day (Lakhani, R., 2004). Most of the companies do not even provide safety belts, protective eye wears, hand gloves, shoe or hamlet to their workers. About 165 of every 1000 construction workers are injured during their jobs and India stands at first position in this regard with world's highest accident rate at construction sites (Washington post, 2001). Wages of construction workers are low and they are exploited by the

contractors (SEWA, 2009). They are exposed to a variety of health hazards, namely, back pain due to uplift of bricks and other loads; skin diseases from close contact with irritant or sensitizing materials; respiratory irritation from dust, fumes and gases; as well as several serious lung diseases related to exposure to asbestos and other fibrogenic materials, noise induces hearing loss (Smallwood, J.J. and Ehrlich, R., 2001). These people suffer from unhygienic living conditions. They live in the places where there are no suitable facilities of drainage, toilet, potable water, electricity, recreation etc. These workers construct medical centres, hospitals and education institutes etc. but during their work period they are the persons who do not get the benefits from any of these facilities.

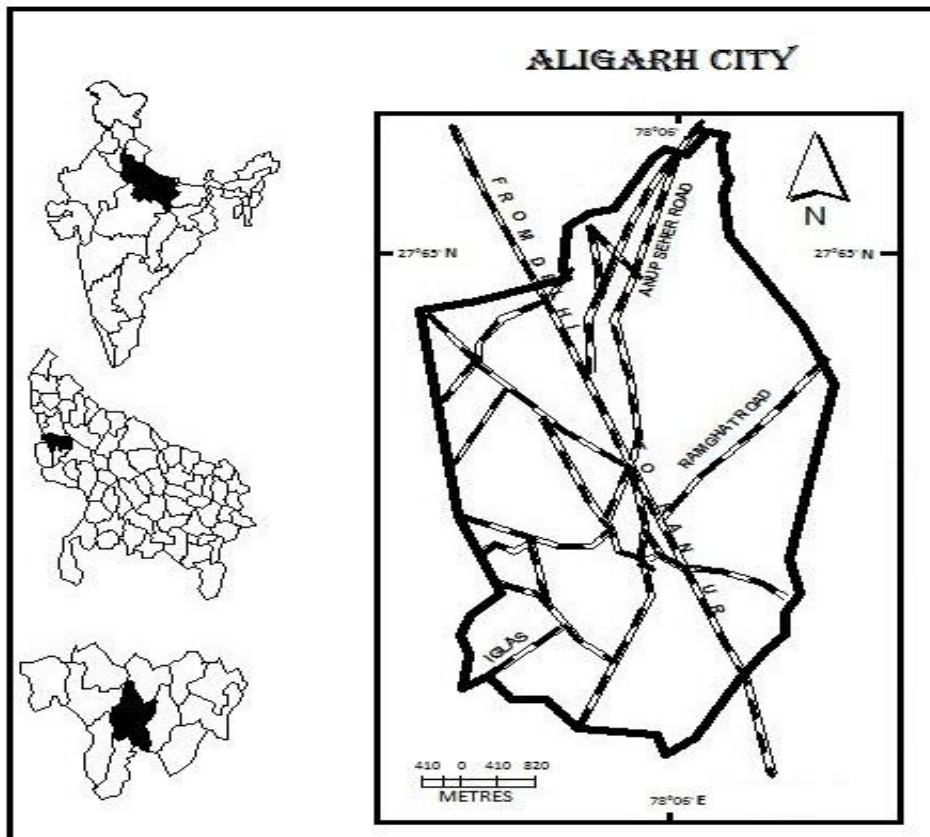
Construction workers are deprived and exploited sections which are not recognized in policy document by the government and very little attention has been paid in humanizing the livelihood of the construction workers because majority of construction workers come under informal sector. It is, therefore, necessary to collect the relevant information regarding their demographic characteristics, socio-economic traits, causes of their engagement in the construction work, problems and implications of such occupation on health and overall life of the construction workers and the policies framed to solve their problems.

AIMS AND OBJECTIVES

The present study aims to analyze the socio-economic and demographic characteristics of the construction workers; to examine the causes of their engagement in the construction work; and to assess their living conditions by analyzing their accessibility in housing and other infrastructural facilities.

STUDY AREA

The Aligarh city has been selected as study area for the present research work. The city is extending from 27°52' to 27°56' north latitudes and 78°03' to 78°06' east longitudes, lies in the western part of Indian state Uttar Pradesh and takes up a geographical area of about 36.10 square kilometers. It comprises of 70 wards, accommodates a residential population of 872,557; out of which 53.07 percent are males and 46.93



Source: Nagar Nigam Aligarh, 2014.

Figure 1

percent are females (Census of India, 2011). According to Census of India, 2011, average literacy rate of Aligarh city is 70.36 percent and male and female literacy rates are 75.50 and 64.55 percent respectively. Since

independence, Aligarh city has grown from a small town to an important centre of industry and education. There are three factors, which have contributed in the development of Aligarh city, i.e. the establishment of Aligarh Muslim University (AMU) in 1920, development of lock industries and its demarcation as the district headquarters. Moreover, in the last two decades, a number of new schools and colleges have been also established in the city.

DATA AND METHODOLOGY

This study is based on the primary data, generated through field survey and direct questionnaire to the respondents in Aligarh city. This survey was carried out during the month of March 2014. Firstly, a pilot survey was made to identify construction sites in Aligarh city. From the selected areas, 100 construction workers were interviewed (see table 1) for the collection of information about their socio-economic conditions, causes of their involvement in construction work and the problems faced by them. After survey was over, each of the individual slips were scrutinized and the data were processed in the tabular form according to the requirement of the various facets of the study.

Table 1: Distribution of Places of Interview and Number of Construction Workers Interviewed in Aligarh City

Places of Construction Work	No. of Construction Workers Interviewed
Shamshad Market	17
Purani Chungi	05
Medical Road	22
Upper Fort	14
Zakaria Market	06
Dodhpur	13
Kela Nagar	16
Badar Bagh	07
Total	100

Source: Based on field survey, 2014.

SOCIO-ECONOMIC CONDITION OF CONSTRUCTION WORKERS

Table-2 depicts the age and sex structure of construction workers in Aligarh city. Construction work is an arduous nature of job which requires hard labour and physical strength in which age plays a vital role. The highest proportion of construction workers, i.e. more than three fourth of the population (78 percent) has been recorded in 21-40 years age group. After this age group, the proportion of construction workers in age groups of 41-45 and 46 and above have been recorded as 10 percent and 8 percent respectively, while only 4 percent construction workers were

Table-2: Age and Sex Structure of Construction Workers in Aligarh City

Age-groups	Percent
Below 20	4.00
21-30	33.00
31-40	45.00
41-45	10.00
46 and above	8.00
Total	100
Sex-Composition	Percent
Male	78.00
Female	22.00
Total	100

Source: Based on Field Survey, 2014.

below 20 years age. It indicates that the community of the construction workers is dominated by the persons in the young and productive age groups. Though both males and females are engaged in construction work but most of the workers are males. Out of total sampled population, 78 percent construction workers are males and only 22 percent are females.

Marital status of the construction workers shows that the percentage of married, unmarried and widowed construction workers is 77, 17 and 6 percent respectively. Most of the males (83.34 percent) and females (72.75 percent) are

Table-3: Percentage Wise Distribution of Marital Status of the Construction Workers in Aligarh city

Marital Status	Male	Female	Total
Married	83.34	72.75	77.00
Unmarried	15.38	4.54	17.00
Widowed	1.28	22.71	6.00
Total	100	100	100

Source: Based on Field Survey, 2014.

married. Only 15.38 percent males are unmarried and 1.28 percent males are widowed. While, 22.71 percent females are widowed and 4.54 percent females are unmarried. However, most of the married construction workers reported that they migrated alone from rural areas in the city in search of job and their wives were still staying in rural areas.

The educational status of construction workers is given in Table 4. Literacy is the most important indicator for socio-economic development of any society. Table-4 reveals that there is a mass illiteracy among the construction workers. Out of 100 construction workers, only 38 percent labourers are literate and 62 percent are illiterate. A very large number construction workers (62 percent) are illiterates and it

Table 4: Percentage Wise Distribution of Educational Status of Construction Workers in Aligarh city

Literacy	Male	Females	Total
Illiterate	61.54	63.64	62.00
Literate	38.46	36.36	38.00
Total	100	100	100
Educational Level	Male	Female	Percent
Primary	66.66	85.71	44.00
Middle	25.00	14.28	14.00
Senior Secondary	8.30	00	4.00
Total	100	100	62.00

Source: Based on field survey, 2014.

is mainly due to mass poverty, inaccessibility in the educational facilities and various other types of basic amenities and facilities. Due to their illiteracy and unskillness, the poverty stricken person do not have any other alternative to earn the means of livelihood but to get easily engaged themselves in construction work.

Table-5 represents the distribution of construction workers by places of birth in Aligarh city. It can be seen from the data that more than half of construction workers (58 percent) has their birth place within Aligarh district, while, 36 percent are migrated from other districts of Uttar Pradesh. While, talking about other migrants only 4 percent are from West Bengal and 2 percent are from Bihar.

Table 5: Percentage Distribution of Construction Workers by Their Places of Birth in Aligarh City

State / District	Percent
Within Aligarh	58.00
U.P. (excluding Aligarh)	36.00
West Bengal	4.00
Bihar	2.00

Source: Field survey, 2014.

Table 6, provides data about the socio-economic causes which compelled poor people to engage themselves in construction activity. Lack of job in villages, extreme poverty, small size of land holdings, Illiteracy and lack of skills are the major economic causes which lead about 70 percent of the construction workers to involve themselves in the construction work, whereas 30 percent of the construction workers are engaged in their profession due to the social factors, like large family size, early marriage, family disintegration and absence of family.

Table 6: Socio-Economic Causes of Involvement in Construction work

Causes	Percent
Lack of job in village	34.00
Extreme poverty	29.00
Lack of skill	16.00
Illiteracy	17.00
Small size of land holdings	16.00
Absence of family	06.00
Early marriage	04.00
Family disintegration	04.00
Large family size	03.00

Source: *Field survey, 2014.*

Table 7 reveals the information about the nature of employments of construction workers in Aligarh city. Construction work is slack in rainy season and most of the construction workers become unemployed in this season.

Table 7: Nature of Employment of Construction Workers in Aligarh City

Nature	Percent
Contractual	36.00
Casual	26.00
Permanent	20.00
Seasonal	18.00
Total	100

Source: *Field survey, 2014.*

The table shows that the nature of employment varies from one construction worker to another; 20 percent construction workers got permanent employment whereas 18 percent were seasonal workers and 36 percent worked at the contract basis and only 26 percent construction workers were casual labourers.

Table 8: Percentage Distribution of Average Daily Working Hours of Construction Workers in Aligarh City

Daily working hours	Percent
Less than 6	17.00
6-8	21.00
8-10	22.00
More than 10	40.00
Total	100

Source: *Field survey, 2014.*

data given in Table 8 reveals that 40 percent construction workers work more than 10 hours in a day whereas 22 percent of them work 8-10 hours in a day, 21 percent workers do their job only 6-8 hours in a day while only 17 percent of the construction worker work less than 6 hours in a day.

Table 9 presents the distribution of average daily income earned by construction workers in Aligarh city. The wages of construction workers are low because they are in informal (non-government) sector where there is no fixed wage.

Table 9: Daily Income of Construction Workers in Aligarh City

Daily Income (in Rupees)	Percent
200 – 250	43.00
300 – 350	35.00
More than 350	22.00
Total	100

Source: *Field survey, 2014.*

Though, the females constitute a fairly large proportion in construction work, but wages of female construction workers are low as compared to male. Average daily income of 43 percent construction workers is between Rs. 200-

250, while 35 percent construction workers earn Rs. 300-350 and only 22 percent construction workers earn more than Rs. 350 per day.

Table 10 shows the percentage distribution of housing conditions and the types of facilities available in the dwelling of construction workers. Out of total sampled construction workers, 47 percent live in temporary houses, provided by the contractor because they move from one construction site to another construction site as per direction of contractors, 31 percent have their own houses and remaining 13 percent stay in rented houses. Moreover, 9 percent construction workers are slum dwellers. From the further analysis of the table it is also found that housing condition of the construction workers were very poor; among them 57 percent construction workers live in semi-kachcha houses, 25 percent live in semi-pucca houses, 14 percent live in kachcha houses and only 4 percent live in pucca houses.

The table also gives the information about the types of facilities available in the dwellings of construction workers. Nearly, 40 percent of the construction workers obtained water from public hand pump, 31 percent from private hand pump, 12 percent from public taps, 9 percent from private taps and remaining 8 percent has other sources of water.

It could also be found from the table that majority of construction workers (59 percent) use cow-dung cake for cooking purpose, 43 percent use wood as fuel, 24

Table 10: Percentage Distribution of Housing Condition and Type of Facilities Available in the Dwellings of Construction Workers in Aligarh City

Status of House	Percent
Temporary house	47.00
Own	31.00
Rented	16.00
Slum	09.00
Total	100
House	
Kuccha	14.00
Pucca	04.00
Semi-Kuchcha	57.00
Semi-Pucca	25.00
Total	100
Means of drinking water	
Public hand pump	40.00
Private hand pump	31.00
Public taps	12.00
Private taps	9.00
Others	8.00
Total	100
Means of fuel	
Cow-dung	59.00
Wood	43.00
Leaves	24.00
LPG	13.00
Kerosene	10.00

Source: Field survey, 2014.

percent make food through burning of leaves of trees and remaining about 13 percent use LPG for cooking.

Table 11: Percentage Distribution of Availability of Durable Goods in the Dwelling of Construction Workers of Aligarh City

Durable Goods	Percent
Watch	62.00
Radio	37.00
Cycle	39.00

Table 11 (Continued)

T.V.	17.00
Mobile	77.00
C.D. Player	5.00
Electric Fan	10.00
Pressure Cooker	2.00

Source: *Field survey, 2014.*

Table 11 depicts the distribution of availability of durable goods in the dwellings of construction workers in Aligarh city. Construction workers are facing the problems of poverty and lack of income and because of these reasons most of them do not have money to purchase the basic things for their better quality of life.

Table 12 exhibits the diseases from which the construction workers of Aligarh city are suffering. Health is an important indicator of level of socio-economic development and it determines the quality of life. The construction work is hazardous in nature where workers are exposed to variety of disease like dental problems, backaches and joint pain from heavy weight lifting, respiration problems from dust fumes and gases, skin problems from the close contact of irritant materials etc. Out of 100 construction workers, 26 percent construction workers have dental problems whereas 58 percent suffer from backache, 32 percent of construction workers have been reported to have joint pain, 17 percent are facing respiratory problems, 28 percent have skin problems and remaining 2 percent suffer from other diseases.

Table 12: Percentage Distribution of Health Problems among the Construction Workers of Aligarh City

Diseases	Percent
Dental problem	26.00
Backaches	58.00
Joint pain	32.00
Respiration	17.00
Asthma	14.00
Skin diseases	28.00
Others	2.00

Source: *Field survey, 2014.*

Table 13 gives the information about the bad habits among the construction workers in Aligarh city. Bad habits like smoking, gutka and tobacco, gambling etc. damage the society, dignity and quality of life. Even these bad habits have percolated

Table 13: Percentage Distribution of Bad Habits among the Construction Workers in Aligarh City

Bad habits	Percent
Smoking	69.00
Chewing Gutka and Tobacco	51.00
Drinking liquor	11.00
Gambling	1.00
No bad habits	13.00

Source: *Field survey, 2014.*

in the lowest stratum of the society. They spend much share of their income on these bad habits. Out of total sampled construction workers, 69 percent are smokers, 51 percent are gutka and tobacco users, 11 percent are drinkers of liquor, 01 percent is gamblers and remaining 13 percent have no bad habits.

The percentage distribution of types of problem faced by construction workers has been given in Table 14. The table depicts that low wages is the most common problem faced by the construction workers. Out of total sampled construction workers, 39 percent reported problems of low wages because construction sector is

Table 14: Percentage Distribution of Types of Problems Faced by Construction Workers in Aligarh City

Problems	Percent
Low wage	39.00
Rude behavior of contractor	22.00

Table 14 (Continued)

Lack of construction work	16.00
Weakness	25.00
Absence of social security	29.00
Lack of basic facilities	25.00

Source: *Field survey, 2014.*

sector where there is no fixed wage and they are exploited by contractors. The next major problem of construction workers is the rude behaviour of contractor towards them because 22 percent of them complained that they have been either misbehaved by contractor or abused by massion. Moreover, 16 percent construction workers faced the problem of lack of job opportunity, 25 percent had the problems of weakness, 29 percent reported about the absence of social security and remaining 25 percent have lack of basic facilities.

CONCLUSION AND SUGGESTIONS

The overall analysis of the study reveals that the construction workers are one of the poorest section of the society, living in abysmal poverty. Most of the construction workers belong to the productive working age group of 21 to 40 years and three fourth of them are male. 77 percent construction workers are married. Literacy rate among them is very low which accounts only 38 percent. More than half of them are the residents of the district itself and about 42 percent workers are migrants from different districts of Uttar Pradesh, Bihar and West Bengal.

The major causes which compelled them to engage themselves in construction activity are extreme poverty, unemployment, large family size, family disintegration, illiteracy and ignorance, small size of land holding, inheritances, indebtedness, desire of work etc. They suffer from the various diseases like respiratory problems, lungs cancer, back pain, dental problems, T.B, asthma which lead to their ultimate death.

For the betterment of construction workers they should be added in government sector. Construction work is hazardous nature of job, so safety items like gloves, helmet, boots etc. should be provided to the construction workers for the purpose of protection. However, public health camps should be established along the construction sites at cheaper rate. There should be provision of basic facilities and easy premium facilities for the families of construction workers. The labour laws have to be implemented to provide better health, safety and welfare facilities to the construction workers and to create awareness about the governmental schemes and workers' rights. It is need of the hour to frame such policies and programmes that the widening gap between the haves and have not can be reduced and extending regional imbalance in the level of development may be minimized.

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