

WOMEN PARTICIPATION IN THE CONSTRUCTION INDUSTRY IN INDIA

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ABSTRACT

The construction industry is the second largest industry in India after agriculture. It accounts for about 11 percent of India as GDP. It makes significant contribution to the national economy and provides employment to large number of people. The construction industry in India is highly fragmented. There are number of unorganised players in the industry who work on the subcontracting basis. To present study aims to analyses. (i).To study the nature and extent of women construction workers in India. (ii). To identify the pattern of employment and income of the women construction workers. (iii). To find out the problem of occupational health hazards of the women construction workers and (vi). To examine the government programmes related to the construction workers in the study area. The construction sector accounts for a significant share of women's participation in the labour force. In this sector, women can create their own jobs. The finding of the study reveals that Employment of women in private sector has been quantitatively less than public sector. A large number of women workers are employed in the construction industry. Among the women construction workers more than 98 percent are casual workers, whereas the proportion of casual workers among women workers among women workers in all industries together is far less, about 75 percent. The study concluded that the public-private partnership will act as a model to decrease morbidity and mortality created at construction site. Measures are needed to improve the work environment of construction workers by ensuring availability of protective gears, sanitation facilities at the sites along with an accessible, accountable occupational health services.

Key Words: *Women workers in construction industry working environment and occupational health hazards.*

Introduction

The construction industry is the second largest industry in India after agriculture. It accounts for about 11 % of India's GDP. It makes significant contribution to the national economy and provides employment to large number of people. There are mainly two segments in the construction industry like real estate construction which includes residential and commercial construction; which includes roads, railways, power etc; and industrial construction that consists of oil and gas refineries, pipelines, textiles etc. According to a study by ASSOCHAM, the burgeoning Indian construction industry, currently worth \$70 billion, went up to US \$120 billion by 2010. Construction is important of any country infrastructure and industrial development. Construction industry, with linkage between its backward and forward linkages with various other industries like cement, steel bricks etc. catalyses employment generation in the country. Industrial construction is a way of expansion projects from various manufacturing sectors. Real estate construction was sub-divided into residential, commercial, malls/multiplexes etc. The construction activity involved at different segments seen from segment to segment. Construction of houses and roads involves about 75 % and 60 % of civil construction respectively. Building of airports and ports has construction activity ranges between 40-50 %. In industrial projects, Construction component ranges between 15-20 %. Within a particular sector also construction component are different from project to project. Construction sector contributed about 11.5 per cent to the country GDP in the year 2008. Over past two years, growth of the construction has followed the trend of economic growth rate of the country. The multiplier factor between growth rates of construction and GDP has been about. Over past 3 years, construction as a percentage of GDP has increased from 8.0 % in FY 06 to 8.5 % in the year 2008. Construction activity being labour intensive has generated various employments for about 33 million people in the country. The construction industry in India is highly the nature of fragmented. There are number of unorganised players in the industry which work on the subcontracting basis. To execute the critical projects, nowadays bids are increasingly placed in consortium. But the construction profitability of the any projects varies across different segments. Complex technology savvy projects can fetch maximum profit margins for construction companies as compared to lower technology projects like road construction. Various projects in Construction industry are working capital intensive. Working capital requirement for the company depends on the order mix of the companies. The construction industry operates at contractual agreements. Over the years different types of contracts have been developed. It mainly from the magnitude and nature of work, special design needs, and annual requirements of funds and complexities of job. Construction projects can be materialized through number of smaller contracts which mainly depends on the size of the project and diversified nature of activities to be carried out in the project. As a result, Subcontracting is a general phenomenon in the construction industry.

Objectives

1. To portray the nature and extent of women construction workers in India.
2. To identify the pattern of employment and income of the women construction workers.
3. To find out the problem of various occupational health hazards of the women construction workers.
4. To examine the government programmes related to the construction workers in the study area.

Methodology

The research is mainly focussed on women workers working in construction industry in India. The study used secondary data. In order to achieve the research aim and objective, the article is mainly based on secondary data drawn from the publication of books, monthly journal, articles, magazines and internet.

Construction Industry and National Economy

Presently, the annual expenditure budget of the country for construction industry is Rs.4,38,795 Crores against the backdrop of the total Gross National Product (GNP) of the country of about Rs.22,00,000 Crores or more (www.indiabudget.nic.in, 2012). Over the past decades more than half of the expenditure budget is spent on civil engineering works. Table 1 reflects the investments made in the industry over the past years. The construction industry sets in motion the process of economical growth in the country; investment in this sector contributes 6.5 per cent of Gross Domestic Product (GDP) growth (Das, 2003). Every one regimes investment in the construction industry measures as Rs.0.80 increment in GDP as against Rs.0.20 and Rs.0.14 in the fields of agriculture and manufacturing industry, respectively. Statistics about the period have shown that compared to other sectors, this sector of economic activity generally creates 4.7 times increase in incomes and 7.76 times increase in employment generation potentiality. Sustained efforts by the Indian construction industry and the Planning Commission have taken effort to assigning the industry status to construction today. This means formal planning and above board financial planning was the obvious destination of the construction sector in the country, with the maximum of 3.1 Crore persons employed in it.

Table-1**Investment in the Construction Industry (Swarup and Mahajan, 2012)**

	1998	1999	2000	2001	2002	2012
Residential Construction						
Public	43	46	65	75	77	98
Private	47	49	85	100	103	167
Total	90	95	150	175	180	255
Non-residential Construction						
Public	56	58	55	60	65	105
Private	104	107	95	110	120	260
Total	160	165	150	170	185	360
Civil Engineering Construction						
Public	1350	1480	1690	1900	2155	4255
Private	500	530	640	755	880	1200
Total	1850	2010	2330	2655	3035	5450

Source: www.indiabudget.nic.in, (2012)

Indian Construction Industry at a Glance in 2012 - 2013

The FY2012/13 had a growth of 6.0 per cent for the Indian construction Industry. Due to monetary issues and other related policies the Indian construction industry showed a lackluster performance in 2012-13. But the outlook for the construction Industry beyond FY2012/13 is brightening up. Not only the monetary conditions to improve for construction companies in FY2013/14, but the government is also making pertinent efforts to remove bottlenecks that are

delaying infrastructure projects in India. India' construction Industry aimed to reach 7.6 per cent growth in FY2013/14.

In 2012 the Asian Development Bank (ADB) and India Infrastructure Finance Company Limited (IIFCL) have launched the first version of the credit enhancement scheme or infrastructure bond guarantee scheme. This risk sharing facility will partially guarantee INR7.2bn (US\$128mn) of rupee-dominated bonds and shares issued by Indian companies to finance infrastructure projects. In 2012, the government announced that it is planning to set up a National Investment Board (NIB) to speed up infrastructure development within the country. The NIB will focus on fast-tracking that the execution of approved projects by getting all regulatory clearances. In 2012, the Indian government finalized the long-delayed bill for land acquisition, paving the way for the bill to be introduced during the current parliamentary session. The final draft of the bill now proposes that land for public private partnership (PPP) and private projects can be acquired for the purpose of two-thirds majority from affected landowners - an improvement from the earlier requirement of 80 per cent.

Women Participation in the Construction Industry

India is one of the few countries where women are involved in the actual construction process. The construction industry is considered a predominantly male, "gender working in an industry like this is fascinating. Women from anywhere between 20-40 percent of the workforce is in the construction industry in India

In spite of their large numbers women are seen as secondary workers and are employed to perform jobs that are considered unskilled. There is no upward mobility for these women workers and it is rare to find women in the position of a supervisor or Forman. It is also rare to find women contractor and engineers in the construction sector in India through there are women architects and designers. The fact that women are found only at two opposite ends of the industry – either or unskilled workers or as designers/architects while the men and positions at all levels within the construction industry make it industry for research.

Types of Women Workers in the Construction Sector

Most of the women workers in construction sector are employed on a casual basis. They are engaged in unskilled job. Unstable employment earning and shifting of workplace are the basis characteristic of work for construction workers. The nature of work is such that there are no holidays. It is established that female workers do not get minimum wages. Female construction work can truly be described as sweat labour, and violation of laws on minimum wages as well as equal wage unskilled workers have no fixed working hours.

They have to do the work what the foreman asks. The following table gives focus on the type of workers.

Table: 2

S.No.	Type of work	Percent of Engaged Female Worker
1.	Water Feeding	3
2.	Material supply	20
3.	Mall Mixing	2
4.	Brick Handling	38
5.	Stone Shaping	1
6.	Slab Pouring	14
7.	Other	2
Total		100

Source: Ministry of labour, Employment review, government of India. (2002)

The above Table-2 indicates that the maximum numbers of female workers (80%) were doing the job of material and brick supplying. Both activities are lightweight as well as unskilled activities. Our observation is that not a single female worker was engaged in skilled job and heavy weight activity.

Public and Private Women's Employment in Construction Industry

In a mixed economy like India, public sector is envisaged to play a leading role in the matter of, inter alia, employment. It is true in the case of in India that public sector has a larger share in employment in the formal sector irrespective of sex. Employment of women in private sector has been quantitatively less than public sector. Another significant difference between public and private sector in the matter of women employment is that former has more women in its tertiary sector while the latter in the primary and secondary sectors. Following is situation of women construction employment in public and private sector of Indian economy.

Table-3

Public and Private Sector Employment of Women in Construction (In Thousands)

Private Sector	Public		Sector
1981	4.8	1981	9.5
1991	55.3	1991	6.0
2001	61.4	1996	4.0
2010	63.2	2000	4.0

Source: Ministry of labour, Employment review, government of India. (2012)

These figures was drawn infield Directorate General of Employment and training suggest that on the one side women's employment in construction has been increasing in the public sector; on the other side it has fallen to less than half in the private sector.

The maximum large numbers of the women workers are employed in the construction industry. According to the 1981 census out of a total of 36 lakh (3.6 million) construction workers which 10 % of female and very swell number of male worker. And 1991 that there were 5534 thousand (5.5million) employed in the construction Industry of which 5122 thousand were males and 412 thousand females.

According to the National Sample Survey organization of India (NSSO), in 1993-94, the construction sector in India provided employment to 6 percent (5.9 million) of all employed women in comparison to 10.3 % (23.1 million) all employed men. Thus women constituted about 20 percent of the total workforce in the construction industry. According to NSSO survey (1993-94) 4.17 % of all female workers were engaged in construction activity. Among women construction workers more than 98 % are casual workers, whereas the proportion of casual workers among women workers among women workers in all industries together is far less, about 75 %.

Status of Women Workers in the Construction Industry

The construction industry place a vital role in the Socio-Economic development of the country. The construction industry is one of India's fastest growing sectors. It is closely associated with nation's economy. Construction Industry is recognized as the Unorganized Sector with high labour intensity and economic activity after Agriculture in India. Construction Industry generates demand for both skilled and semi-skilled labour force. It provides employment to 7% of total world employment. Today Indian construction industry employs about 31 million peoples all over the country.

These construction labourers are one of the most vulnerable portions of the unorganized sector as there is no permanent job opportunity for them. However on the other side other Industries where they are increasingly employed in semi- skilled and skilled occupations, women are engaged almost exclusively as casual manual Labourers in the Indian construction industry. The construction Industry plays a vital role in combating the high level of employment and in absorbing surplus labours both male and female from the rural areas. The construction industry as an economic entity has a profound the refilling in the GDP and overall economy of the Nation. Combining the potential for employment and providing the higher level of Infrastructure facilities for practically every economic activity. Therefore, the construction industry plays a decisive role in the development of the Nation economy.

Occupational Health Hazards the Construction Industry

The women workers at certain level were going through a number of job stresses like sexual harassment, being jobless, gender-based discrimination, proneness to different health hazards, physical problems, insomnia, nausea, and headache, clearly peptonised. It is seen that at the work place they do not have any privacy for sanitation, both male and female workers work together. Due to free mixing of the male co-workers they might get Sexually Transmitted Diseases **(Tiwari and Ganopadhyay 2011)**.

Construction industry is one of the important growing industries of the world and construction labor form 7.5 % of the world labor force. In India, it is the largest economic activity after agriculture and since it is a labor-intensive techniques adapted to this industry consist 44 %

of all urban unorganized workers. This work force comprises 55 % of unskilled labor, 27 % skilled labor and rest the technical and support staff. The two broad types of construction works are i.e. building and civil engineering. Building applies to works involving structures such as houses, offices, shops, factories and schools. Civil engineering work applies to all the other built structures in our environments, including roads, tunnels, canals, dams, railways and docks. Construction workers in both categories are at a greater risk of developing certain health disorders and sickness than workers in many other industries. They are reflects to multiple physical, chemical and biological agents, which make them vulnerable to various health problems that include - injuries, respiratory problems, dermatitis, muscular-skeletal disorders and gastro-intestinal diseases. The nature of work is hard physical labor, often under difficult conditions like adverse weather conditions and the nature of work, hours of work, low pay, and poor living conditions with lack of basic amenities and separations from family members, lack of job security and lack of access to occupational health services make the situation worse. Due to ergonomic factors they are also vulnerable to degenerative disorders. Apart from this, most of the construction projects the workers employers are unorganized in nature and often not guided by the legislations that made for the health and welfare of the workers and hence they are not eligible for free or subsidized care.

In India, mostly migrant's workers from remote villages often are less educated and not cautious about various preventive measures. Most of the labour are inter-state migrants and has poor language skills that prevent them from understanding the safety precautionary masers was taken and to voice their problems. The occupational health and safety are also neglected and accident and occupational disease statistics are not accurately available. In the era of globalization construction is a fast growing industry and very little research was found done on the occupational health hazards and workers affected money psychosocial problems of these workers especially in Asian countries like India. In this context, to understand the occupational health problems of construction workers and to compare the morbidities among the two types of workers (building and civil workers) and advocate public health policy measures, this study were conducted.

Issues Confronting Women Participation in the Construction Industry

At presses the construction industry with its extreme gender stratification still it is conservative in its recruitment of women. The prevalent social conditions of the occupational segregation of the labour market into masculine and feminine jobs is as imperforate at presses as it was at the starting point of the century, with construction as the prime example. The majority of women working in the construction industry carried out administrative, technical and professional work while the intake at the operative level is very minimum and the data are scarce to non-existence. But in most countries these represent less than 1 % of the workforce (**Clarke et al 2005**). Inevitably it can be concluded that construction is not only male-dominated but the Lecce of female participation.

Among the common problems in some estuary are social acceptances of employment, sexually-inappropriate occupation, sexual discrimination, sexual harassment, physical incapability, unqualified for blue-collar jobs and labour conditions such as extreme weather, unsociable work-hours and exposure to hazards. Besides, there have been very limited studies focusing on factors influencing women entry into construction and what their expectations are (**Bennett et al, 1999; Clarke et. al. 1999**). Only few studies study showed that many students

choose the path without full knowledge about the industry and its culture. Evidently, career choices of young people are determinants by many factors from events in early childhood to parents, peers and career advisers. Only few friends that helped them to make the career decisions at better manner while others were influenced by family or friends already workers in the construction industry.

Construction Worker Welfare Funds in India

Construction Worker welfare funds represent one of the models developed in India for providing social protection to workers in the in organised in the filmier economy. India has a federal structure and these funds have been set up both State governments as well as by the Central government of India. These funds are targeted to utilise the for informal workers in specific industries and, in most cases, are raised from a cess or tax on the production/output in specified industries, particularly those in which there is no direct recognized employer-employee relationship and typically without any contribution from government or the workers. For example of a Central Fund is the Bidi Workers Welfare Fund where a welfare cess is collected along with tobacco taxes on bidis and transferred to the Ministry of Labour, which has established an autonomous welfare board, comprised with representatives from employers, government, and workers, and to plan and administer the various benefits under the welfare scheme.

The Construction Workers Welfare Funds was set up by States under a central law. The States collect a cess on construction projects worth more than one million rupees and it was transfer the amount raised to the Welfare Fund for Construction Workers which it outsized to registers workers and brings them under cover of welfare schemes i.e., health insurance and scholarships for children. Some States covered many different categories of workers. Tamil Nadu State, for instance, has 16 or more welfare boards and schemes for construction workers at different lead truck drivers, footwear workers, handloom and silk weaving workers, and other categories of informal sectors.

Summary and Conclusion

In India, most of the construction workers are mostly illiterate; it is desirable to impart health education to them, to evaluate them of the ill effects of work and the remedial measures. Various Awareness programs and local group discussions are essential for improving the health status of these working groups. The findings of this study can be extrapolated to other construction sites employing the workers in urban and rural areas. Benefits of the public-private partnership to the medical college others in the form of research-oriented training for the postgraduate students in community medicine. The benefits to the construction company only to a healthy workforce to achieve its targets and goals of the project as well as opting more fists for the Occupational Health and Safety Assessment Series certification. The public-private partnership will act as a model to decrease morbidity and mortality created at construction industry site level bess. The study revealed that occupational injuries were common among building construction workers. Therefore, Streatham measures such as creating awareness of risk factors, avoiding overtime work, providing training and personal protective devices should be effective to decrease prevalence of occupational injuries. Measures to be needed to improve the work environment of construction workers by ensuring availability of protective gears, sanitation facilities at the sites along with an accessible, accountable occupational health services in the construction industry.

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