

YELLOW HELMETS: Work and Worth of Women Workers on Construction Sites in Northern India

by Sabina Suri Dip. Arch. T.V.B. School of Habitat Studies New Delhi, India. 1997



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YELLOW HELMETS: WORK AND WORTH OF WOMEN WORKERS ON CONSTRUCTION SITES IN NORTHERN INDIA

by Sabina Suri

Submitted to the Department of Architecture on June 2000 in partial fulfillment of the requirements for the Degree of Master of Science in Architecture Studies.

Abstract

The participation of women in the building sector is an exception rather than a rule. In most countries of the world the building industry is almost exclusively the domain of men. In India a large number of women are actively involved in the construction process itself. According to 1993-94 Statistics, the construction sector in India provided employment to 6% (5.9 million) of all employed women, constituting about 20% of the total workers in the industry. In spite of their large numbers, women construction workers are seen as secondary/temporary workers with seldom any opportunities for training, upward mobility, wage guarantees, fringe benefits or social protections.

My research has been an exploration and an inquiry of this widely observed phenomena of women construction workers and how it operates from the perspectives of the various role players in the industry, namely, the workers, contractors, intermediaries etc. The purpose is to map the existing knowledge base on the role of women workers and to identify from this mapping key issues that need to be critically examined if opportunities for women in the industry are to be enhanced. The idea has been to make vivid the experience that women have on a construction site and draw from their account implications, issues and problems that one needs to address while formulating a public policy and modifying the practice.

The construction industry remains one of the least researched industries in India. There is very little research published or reliable data on numbers, working and socio-economic conditions and the position of women workers within the construction industry. Through my research I attempt to create a knowledge base and fill the lacuna in the existing literature on the subject and contribute towards a "different" understanding of the role of women workers in the construction industry.

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INTRODUCTION

The participation of women in the building sector is an exception rather than a rule. In most countries of the world the building industry is almost exclusively the domain of men. In certain countries of the developing world, like Indonesia and especially India many women find employment in the building sector. A large number of women in India are actively involved in the construction process itself. According to the National Sample Survey Organization of India (NSSO), in 1993-94, the construction sector in India provided employment to 6% (5.9 million) of all employed women in comparison to 10.3% (23.1 million) all employed men. Thus, women constitute about 20% of the total workforce in the construction industry. A NICMAR study from 1995-96 however, claims that women constitute about 28% of the construction workforce while yet another study estimates this figure to be as high as 40 %. In comparison, in the United States, women constitute 1.8 % of the total workforce in the construction industry.

Despite their large numbers, women construction workers are seen as secondary workers - filling up only the residual demand for labor in the industry. These women workers are largely migrant workers, belonging mostly to the scheduled castes and scheduled tribes. Employment is often temporary with an overwhelmingly large number of women workers performing unskilled jobs at wages lower than the men. Opportunities for upward mobility, skill up-gradation, social protection and welfare benefits are almost non-existent. The first to be retrenched when contracted work in completed; they remain largely invisible with their work and worth as workers in the construction industry inadequately valued.

My research has been an exploration into this widely observed phenomena of women construction workers in India and how it operates from the perspectives of the various role players in the industry, namely, the workers, the contractors, intermediaries etc. The purpose of this inquiry has been to better understand and map the existing knowledge base on the role of women construction workers in India and to identify from this mapping key issues that need to be critically examined if opportunities for women in the industry are to be enhanced. There has been no attempt at the beginning of this research to prove any pre-determined issues or hypothesis. The idea has been to make vivid the experience that women have on a construction site and draw from their account implications, issues and problems that one needs to address while formulating a public policy and modifying the practice.

The construction industry is considered as the second largest employer in the country after agriculture, 5 providing employment to a significantly large number of women. However, it remains one of the least researched industries in India. 6 There is very little research published or reliable data on numbers, working and socioeconomic conditions and the position of women workers within the construction industry. Through my research I attempt to create a knowledge base and fill the lacuna in the existing literature on the subject and contribute towards a "different" understanding of the role of women workers in the construction industry.

It has been argued that if one were to enhance opportunities for women and also other workers in the industry one has to know more about the way it operates. Thus, work processes, organizational structure, recruitment and employment practices, social hierarchies, contracting methods, skill acquisition and role of intermediaries in labor control are some of the issues that need to be identified and analyzed. Shivkumar et al. (1991) have argued that there are a set of systems of operations in the industry which, while exploitative in character, cannot be understood unless some of the forces in that situation are adequately analyzed. The basis of the argument has often been that the construction industry exploits its workforce and people work out of "majboori" – for lack of other options.

Introduction

This may be true to an extent but till the issues are brought to the forefront and the arguments put forth by the different role players, understood, our perception of the issues will continue to remain pretty crude.

Fieldwork for my thesis was done over January and February 2000 in India. The study was carried out on one particular site near Delhi – the city I was most familiar with, where I have lived and worked as an architect for many years and where I have always seen numerous women working on construction sites. Though the research was done on one site that I visited everyday, from 8 AM to 7 or 8 PM, I also visited some other construction sites in and around Delhi to make my observations and findings more representative of a typical construction site. I also interacted with academicians, activists, representatives of organizations working with construction workers, officials, architects, contractors, engineers and supervisors to get a range of arguments and opinions about the construction industry in general and in particular the role of women. Had I not spent so much time on site, interacting with different role players within the industry and outside it, nothing would have made sense. Because there are stories within stories and it is easy for one to lose perspective.

In the study presented here the architect becomes a researcher and explores a multiplicity of tools and techniques while engaging with participants of the building community to learn about their space, work processes and organization. The participants are considered "experts" in their workplace. By this I mean that workers have unique knowledge about their lives and experiences in the workplace. Their unique perspective is often missing in official reports about the industry. By incorporating their point of view, I aim to complicate and enhance the "story" about continuities and changes in the construction industry in India. Given this assumption the architect listens to them, watches how they work and interprets daily events in a personal log. The challenge is to bring out the "real" stories of these women workers and how they perceive their work themselves and how their co-workers, employers perceive their work and worth. In the process bring out the contradiction between the perceived notion about women's work and the actual reality.

Is it my desire to change this industry
So that it's not such a hostile place for women
Worth it? Is it worth my life? Is it worth being crippled?
Is it worth all the psychological harm? Sometimes you say,
Yes, it is. If I don't do it, who is going to do it?

Cynthia Long From WE WILL CALL YOU WHEN WE NEED YOU (1998) By Susan Eisenberg

¹Roelofs, A (1989): Carrying twice the burden; the life of female construction laborers in Vellore, Tamil Nadu, India, Urban research working paper, Institute of Cultural Anthropology, Amsterdam.

Most women who work in the building sector in Indonesia are engaged in the production of building materials and are not actively involved in the actual construction process.

- ² Shah, Vinita (1998), Career Promotion of Women Executives in the Construction Industry. In Vaid, K.N. ed. (1999) Women in Construction, NICMAR Publications Bureau, Mumbai.
- ³ Eisenberg, Susan (1998), We will call you if we need you, Cornell University Press, Ithaca.
- ⁴ According to a NICMAR study of building workers in Delhi done in 1992-93, as many as 69.9% of the workers surveyed belonged to the scheduled castes and scheduled tribes of India.
- ⁵ Kapoor, Pradeep, Chairman-Managing Committee, National Institute of Construction Management and Research. Statement made at the opening address in the 4th National Round Table on Human Resources Development in the Construction Industry and Infrastructure Development Sector.
- 6 Vaid, K.N (1995), The Building Worker A study of skills and productivity in Delhi, NICMAR Publication Bureau, Mumbai

Introduction 2

NOTES TO MYSELF

1. What made me to take up this topic for research?

I had seen women working on construction sites in the course of my supervising architectural projects. The fact that I had seen women, at times pregnant women, do very hard work in harsh weather conditions, made me wonder about the work they do on sites, how much they get paid, their poor living and working conditions and the contractors who employed them. I would see them on site for a few days and on other days they were gone – only to appear again! All this made me more curious about this group of workers on my construction site.

I decided to investigate more about their work, numbers, labor and welfare policies within the construction industry for a paper that I wrote for a class that I took in Spring 1999, at MIT, on Gender, Work an Public Policy. In the course of writing the paper I realized that there was very little research done on women construction workers and their role within the construction industry. A lot of the studies, data about their numbers was outdated and dated as far back as 60's and 70's. At this point, I was not aware of any new studies or research. Building industry was the least researched industry. This interested me to take up this subject for my thesis research.

I took this as a challenge and through my research I hope to fill a lacuna in existing literature and research on the subject of women construction workers. I hope to bring visibility and create awareness amongst professionals, concerned government officials, activist groups and the different role players within the industry on the issues concerning this group of women workers.

2. What is so fascinating about this topic?

The participation of women in the construction industry is an exception rather than a rule. In very few countries of the world do women work 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 unfriendly" industry. To find women in large numbers working in an industry like this is fascinating. Women form anywhere between 20-40 % of the workforce in the 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 foreman. It is also rare to find woman contractors and engineers in the construction sector in India though there are women architects and designers. The fact that women are found only at two opposite ends of the industry – either as unskilled workers or as designers/architects while the men find positions at all levels within the construction industry make it interesting for research.

3. As an architect how does it concern me?

Architects are part of the building community and since we share the profits with the contractors and consultants I think in an ethical way this does concern us too. Maybe, as architects we already have our hands full, coordinating between clients, contractors, consultants, engineers and managing our own practices and we look away. After all what all can we get into? We often argue that anything related to the workers is the contractors responsibility and liability and not ours but I think that as professionals and citizens we have a responsibility to fulfill.

Notes to Myself 2a

I believe architecture today needs to be redefined to address larger issues like development, management of resources and their sustainability, equity and social justice and an architect has to extract opportunities from existing conflicts rather than fit into predetermined roles. An architect has to be multi-faceted and move beyond the traditional role as a designer.

The role of an architect in practice is not limited to just the design, the process by which a project is executed and realized is as much an architect's responsibility. I feel an architect's designs can be informed by the process of building and in turn can also influence the practice of building.

4. How does it relate to architecture?

I feel a study like this has important implications for the building practice itself. It has the potential for enriching the building process and influencing change at the work site within the construction industry. It has often been argued that architecture, work process and organization are inherently linked.

Through my analysis of the physical organization of the work site, I have illustrated how organizational structures influence communication and in turn bring up conflict within the existing work processes. I have also tried to articulate the inefficiencies and conflicts that exist within the current systems on a typical construction site. The informal organizational structures that exist today prevent the practice from operating efficiently and do not optimize learning because the women workers are not exposed to a variety of jobs necessary for operating within the industry. Till a group of people at the work site continue to be invisible the practice will not be defining conditions for them to be served. Until the behavioral patterns are modified and new policies are established the practice will suffer.

Notes to Myself 2b

A LETTER TO MY MOM

Dear Amma.

Today I went with my boss to the construction site of the new office complex that we have designed. We walked all over site to see how construction was progressing and to crosscheck that construction was being done as per our construction drawings. There were hundreds of workers working on site. I noticed that a lot of the workers were women. The women workers stood out from afar because they wore special yellow helmets.

The women workers did tasks such as sorting sand, carrying bags of cement, carrying bricks, concrete mix, mortar etc. in container trays up the ramps, (which incidentally were made of shuttering plates). They carried bricks- some of them carried as many as 7 to 14 bricks! I tried to lift some but could not lift more than 4 bricks at one time. The women workers assisted the masons by bringing bricks, mortar, water, mixing small amounts of mortar and cement slurry, providing them with implements and cleaning them once work was over and once in a while helping them with the measurements and centering of the plumb line. Women performed odd cleaning jobs like picking up left over or broken pieces of bricks, cleaning the surface of the shuttering plates before the concrete was poured, picking up waste material/scrap from all over the site and stacking it at one spot on the site. Women also measured and poured the aggregate, sand and cement into the concrete mixer but oddly were never seen operating the mixer or any other machinery.

The women (I was told) were provided with the special load-carrying helmets as they are *coolies*, performing only the unskilled jobs on site; implying, I suppose that they were the ones who carry head loads. I noticed most of the women wore these special helmets with additional padding as a result the helmet was balanced on top of the head rather than fit on the head. They probably found it uncomfortable. This made me wonder if there was any special product design development done in our country for construction workers?

The men who wore helmets of different colors like red, blue, white and yellow were performing jobs such as putting up the scaffolding, bar bending, masonry. The carpenters, painters, electricians, plumbers, mechanics and machine operators were all men. I also noticed all the engineers, supervisors, foremen, sub-contractors and the Project Manager were all male. It felt strange to be the only professional woman on site. The colored helmets helped in identifying the workers and distinguishing between the workers doing different jobs. The red helmet was worn by the bar benders, the blue by the masons and the people putting up the shuttering, the yellow by the *beldars* and the white helmet was worn by the engineers, foremen, supervisors and other staff of the main contractor. I too was given a white helmet! The yellow helmet was the only one worn by both the men and the women, though the women wore special yellow helmets.

The women, I was told by the main contractor, found employment because their husbands, who are beldars or mistris negotiated their employment along with their own. Otherwise a woman worker is given employment only if she is accompanied by a male family member to stand as her guarantor. Imagine, he told me that they didn't prefer to hire the women as they were slower than the men and not as productive. I was surprised to hear this because the women worked just as much and as fast as the men — I was obviously no difference.

I spoke to one of the woman workers, Shanti, who has come to work on the site with her son and two other children. Her husband and four children manage agriculture in the village. They had run into debt due to her husband's illness and therefore decided to come and work in the city. She heard about construction work from people in her village who had worked on construction sites and had returned home for

A Letter to my Mom

the harvest season. She and her children came to Delhi with a group of people from her village. Some of the members of the group had contacts with a *jamadar*. A *jamadar* is basically a middleman who is responsible to the main contractor for the supply of necessary labor force. The *jamadar* gave them "*kharchi*" (advance payment) on their arrival and within three days found jobs for Shanti and her son on the present construction site, close to Delhi.

Shanti gets paid Rs. 55 per day out of which the *jamadar* takes Rs. 5 as his commission for giving her the job. Her "official" work hours are from 8 AM to 5 PM with an hour's lunch break from 1PM to 2 PM. If she works till 10 PM then Shanti gets an additional half-day's wage as overtime. Shanti is illiterate so she puts her thumb impression on the register when getting her salary from the *jamadar*. She is normally paid on the 10th of every month but there have been times in the past when the *jamadar* has not paid her for two months at a stretch. He however, gave her *kharchi* and *udhari* (loan) to meet her daily needs, which he deducted when he eventually paid her. I assume he holds the workers salaries as a surety that they don't leave mid-way through the project. He advances them money instead, which binds them to working for him. The hegemonistic tactics he uses to control the workforce are amazing!

As Shanti is employed on a daily wage basis, she gets paid only for the days she works. She does not get paid for national holidays or festivals or for days when work is stopped due to rain. She does not get paid in case she takes a day off due to illness or injury. Although, she works all seven days in a week, Shanti does not get work for all the 30 days in a month. There are at least 4-5 days in a month when the *jamadar* tells her to take the day off, as he doesn't have work for her. She was however proud that her son managed to get work for all the days in the month. He has been assisting a mason and has now been taken under tutelage by a *mistri*. He is now training to become a mason himself. Shanti doesn't mind training as a mason herself as she already does various jobs on the site. I see the absence of women in skilled trades as totally illogical and archaic — an inequity that needs to be corrected.

Shanti does whatever tasks the supervisor gives her everyday though her favorite job is to pour concrete rather than work with a mason because the mason keeps giving her instructions and tasks to do from time to time. She prefers to pour concrete because she gets to work with her friends, without any interference from the *mistri* and get periods of rest when the *beldar* operates the vibrator. She always gets instructions from the foreman or the supervisor of the block where she works. The sub-contractor never speaks to her directly. She has never spoken to the director of the company, the main contractor. She feels, she is the *jamadar's* labor therefore all communication is through him. There seems to be a very strong hierarchy that exists on the site in terms of who can communicate with whom.

Shanti does not like working on the site since the male workers from other states (of India) often stare, make rude remarks or pass comments at the women. The *beldars* from her community have told her not to get into confrontations with these men so she just looks down and walks away whenever she hears a comment directed at her.

When she is at work, her older daughter who is 7 takes care of her son who is 3 years old. She and her older son, who also works on the site, have been give a *jhuggi* (hut) to stay at the labor *bustee*, adjoining the site.

The *bustee* has *pucca* toilets, running water but no electricity. She stays in a lane with other families from her community and village. According to her, different worker groups from different states stay in separate lanes

of the bustee. They often have confrontations with other groups over issues of cleanliness of the bustee.

A Letter to my Mom

Amma, it is incredible, Shanti has never been to the city in spite of working on this site for almost a year now. She was asking me what it was like. She said she did not have time to go out as she often worked late on the site and the furthest she had gone was the local vegetable market where they go to buy their supplies. I asked her if she knew about any construction workers union, about labor laws and welfare measures that the Government had made for construction workers. She just stared blankly at me and said no one cared about their conditions.

Her answer made me question my comfortable, complacent existence. It made me wonder about basics like poverty, illiteracy and lack of awareness that still exist in our country. It made me reflect on the progress that we have made after 50 years of independence or rather its slow pace. It made me think about larger issues like development, distribution of resources and how much percolates to the real people.

I don't know if people are concernedI too wasn't bothered till I began visiting the construction site and till I heard Shanti's story. It has at least made me question my sheltered existence. I think all of us as professional are far too complacent about the way things exist in the construction industry – we don't like to be involved in the mess! I think we like to maintain a status quo, so that we can carry on exploiting the limited resources and leaving the people who are at the lowest level to fend for themselves. We exploit the poor and their development, we exploit anything we can - situations, conditions, people and establishments purely for our own individual gains. This seems to be the "philosophy" of our times. We have no ethics and don't believe in a common cause. We live for the moment and care for nothing else. This attitude is responsible for the pettiness and chaos that exists everywhere in the country, in politics, in the government and in our personal lives.

I know this letter of mine has been a little incoherent, but I can't express my thoughts any better at this moment. We need to question ourselves to find out what we can do and then have the courage to carry out what we decide to do. I don't have any suggestions for the moment, but my experience at the site has been a self-realization. My task would now be to see what can be done next. How can I be involved in bringing issues that concern women workers in the industry to the forefront?

Through your experience and work as an anthropologist, I am sure you will have suggestions for me. I look forward to hearing from you.

Affectionately, Sabina

Delhi, January27, 2000

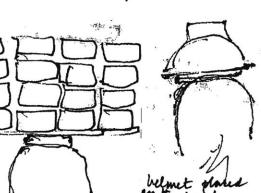
P.S. Enclosed are some pictures and sketches from my log on site.

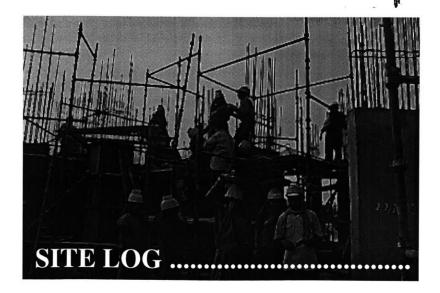
A Letter to my Mom











SPACE, GENDER AND WORK IN A CONSTRUCTION SITE

Occupational/job segregation by sex

The inequalities that come with being a woman are evident in every aspect of the work process and work organization of the construction industry. Women are given a differential treatment in terms of employment, wages and status on the basis of their gender. This is often based on an entire structure of social beliefs, perceptions, norms and preconceived notions of gender roles in a predominantly patriarchal society. There is almost no recognition of a woman's contribution at home and seldom do the men share tasks or chores at home. This same attitude is also extended to the work place and leads to devaluation or non-recognition of women's work. The following are some of the inequalities women face due to their gender:

Prejudice against hiring women:

The construction industry seems to have a strong bias against recruiting women, especially single women, unaccompanied by a male worker. Contractors, Project managers, Supervisors etc. often use the following arguments against hiring women workers² –

- Women generally do lighter work compared to the men
- They are physically less strong than the men and are slower at tasks
- Women workers divide their attention between work, home and children and, therefore, are less productive

The output of work done by a woman worker is, thus, considered to be below the male worker³. Women are also seen as a "cause for distraction and disputes" among workers on sites with predominantly male workers. Often a woman's employment is based on the employment of her husband or male family member who accompanies her and stands as a guarantor for her. Thus, access to and retention of employment remains a major problem for women in the industry. Another reason often mentioned by employers in hiring women and seen as a disincentive in recruiting women is the additional outlay for separate toilets and other facilities and the returns not compensated by an increase in productivity.⁴

Kaveri, M.S. (1995) points out that women's employment is further affected by factors such as pregnancy and old age. In spite of existing laws, women workers are not usually provided with any form of maternity assistance and often are seen returning to work soon after the delivery of the child. Similarly, the pressure of work being so heavy and having started work at a very young age, women in construction tend to get worn out and exhausted by the time they are around 40 years of age. Older women therefore have much lesser chances of being employed.⁵

- ¹ Kaveri, M.S, "Construction workers, Unionization and gender: A study of Tamil Naidu construction workers union". In Joseph, C and Prashad, KVE (1995), Women, Work and Inequality: The reality of gender; National Labor Institute Publication, New Delhi.
- ² Wagh, Suman, (1998), "Contractors views on training of women construction workers". In Vaid, K.N, Wagh, Suman (ed.). (1999) Women in Construction; Nicmar Publications, Mumbai.
- 3" We don't prefer to hire women as they are not as efficient as the men. They are slower at the job and at times there are disputes on the site because of the women". Conversation with the main contractor, January 27, 2000.
- ⁴ Shah, Vinita (1998), "Career promotion of women executives in the construction industry. In Vaid, K.N, Wagh, Suman (ed.). (1999) Women in Construction, Nicmar Publication, Mumbai.
- ⁵ Kaveri, M.S.(1995), Construction workers, unionization and gender: A study of Tamil Nadu construction workers union. In, Prasad, K.V and Joseph, C (1995), Women, Work and Inequality: The reality of gender. National Labor Institute Publications, New Delhi.

Unskilled work:

The division of labor on a construction site is gender based. Women are given repetitive, monotonous, manual tasks that are considered as "low-skill" jobs and are seldom trusted with operating any piece of machinery or equipment. The prevailing gender constructs in the industry encourage the perception that women workers are not capable of performing tasks that a male worker can (in spite of having observed the contrary) and thus, the tasks performed by women are always seen as secondary. Not considered capable of working independently, their role is viewed as helpers or assistants to their male co-workers and tasks performed by women are placed low in the hierarchy of jobs done on a construction site.





Women are constantly given instructions by the male *mistris* under whom they work and are seldom allowed to use their own initiative. Kaveri, M.S. (1995) argues that the construction industry being labor intensive, women have been the natural choice of performing most of the unskilled operations.⁶ There seems to exist a viscious cycle, whereby the under valuation of women's contribution in construction is a major reason in denying them opportunities for skill acquisition (besides denying them other welfare benefits) and in turn because they do not possess "skills" they are continuously given "lower status" jobs.

⁶ Kaveri, M.S.(1995), Construction workers, unionization and gender: A study of Tamil Nadu construction workers union. In, Prasad, K.V and Joseph, C (1995), Women, Work and Inequality: The reality of gender. National Labor Institute Publications, New Delhi.

Lower wages and Less work:

Women in construction are often paid differential wages in comparison to the men. The prevailing average daily wage rates as per the National Sample Survey Organization (NSSO), 1987-88 given in table 1 clearly brings out the fact that the average daily wages for women workers, both in the rural and urban areas, are significantly lower than for the male workers. As per a study conducted by NICMAR as many as 78% of the firms surveyed, paid lower wage rates to women as compared to male workers doing similar work. This prevails in spite of the Equal Remuneration Act of 1976, which puts an obligation on the employer to pay equal remuneration for men and women workers for work of equal value. In my view, a factor that probably perpetuates wage differentials between the genders is also the lack of consciousness among women workers about the importance of their work. The persistent belief that men are better workers than women and that their work is more crucial to production, and that therefore, male workers deserve to be paid more.

Not only are women paid a lesser wage, they are also given less work. Often the number of days that a woman worker gets work on a construction site is less than what her male co-workers get. It is not uncommon for a woman worker to be told to take the day off, as there is no work for her on the site on a particular day. Thus, the number of days a woman finds employment is less than her male counterparts.

woman finds employment is less than her male counterparts.

Table 1: Average Wage/Salary Earnings (rs.) per day received by employees of age 15-59 years

-			Ave	erage Wage/Sa	lary Earni	ngs Per Day	
SI		Rural Urban					
No.	Industry Division	Male	Female	Difference	Male	Female	Difference
		teath (11)		(M-F)			(M-F)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Agriculture,	14.58	10.65	3.93	27.57	19.05	8.52
	Hunting, Forestry						
	and Fishing(0)						
2.	Mining and	38.70	23.81	14.89	46.28	31.73	14.55
	Quarrying (1)				2000 A 2000 B 2000 B		
3.	Manufacturing (2)	22.77	9.42	13.35	29.83	13.06	16.77
4.	Manufacturing (3)	28.69	13.78	14.91	43.59	33.20	10.39
5.	Electricity, Gas and	36.16	45.17	-9.01	50.14	43.92	6.22
	Water (4)						
6.	Construction (5)	31.58	18.27	13:31	39.23	27.65	11.58
7.	Trade (6)	17.99	18.42	-0.43	22.55	18.37	4.18
8.	Transport, Storage	32.08	26.80	5.28	41.51	47.20	-5.69
	and						
	Communications (7)					E2 54	
9.	Finance, Insurance,	42.25	38.75	7.50	62.10	53.92	8.18
	Real Estate and						
	Business Services						
	(8)					26.22	
10.	Community, Social	38.54	28.39	10.15	46.51	36.33	7.11
	and Personal						
	Services (9)						
	All	30.14	21.56	8.58	41.87	34.76	7.11

Source: National Sample Survey Organization (NSSO), India (Conversion Rate: 1 USD = Rs. 40 approx.) ⁷ "The Jamadar asks me to take leave at least 4-5 days in a month. He tells me to take the day off, as he doesn't have work for me. He doesn't give me work for all the 30days in a month." Manglee, Woman construction worker. January31, 2000

Job segregation by state of origin

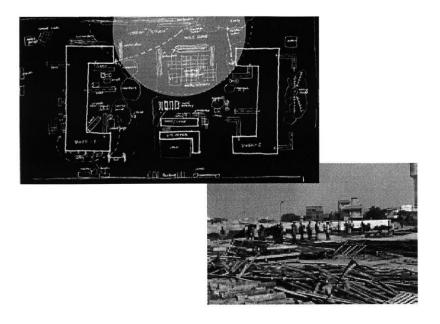
It is often argued by contractors and *jamadars* that they hire laborers from certain regions because labor from these regions possess certain specialized skills. Consequently one can identify the state or region a worker comes from based on the job one does on site. Thus, it seems in some tasks the place of birth of the worker in relevant. This preference appears to be based on the rationale that the background of the people from such areas is helpful in carrying out the specific tasks. 9

On the construction site studied, I was able to identify workers from different states performing different jobs on the site. For example, the bar-benders were from Bihar, the workers putting up the scaffolding were from West Bengal, metal-workers/plumbers were from Orissa, while most of the masons were from Madhya Pradesh. All the women workers on the site were from the tribal areas of Madhya Pradesh. Tribal societies are known to be more open in allowing women to work outside the village than non-tribal societies. Ranade and Sinha (1976) in their study of women construction workers in Delhi and Bihar point out that in non-tribal areas of Bihar, women in general and unmarried girls especially are not easily permitted by their parents to go for work to distant places. According to them, employers generally consider tribal women to be more hardworking in comparison to non-tribal women and therefore, are willing to hire and retain them for longer assignments.

⁸ Shivakumar, MS, et al. (1991) Recruitment and employment practices in construction industry: A case study of Bangalore, Economic and Political Weekly, M-27 Issue-8 Vol XXVI

⁹ Ibid

¹⁰ Ranade, S.N and Sinha, G.P (1976): Women construction workers – Reports of two surveys in Delhi and Bihar, Allied Publishers, New Delhi



"Gendered spaces" - male and female zones

An interesting observation that I made on the construction site studied, was the delineation of certain spaces as completely male zones. The preferred organization of space seems to define areas of private territory from which the women should keep out. Seldom was a woman worker seen working in these zones possibly because women workers see it as an extension into the estate of "ownership" of this space by men. This was the area on site where the metal workers, the bar-benders and the contract labor from Malda did the earthwork. Women workers in their conversations have described this zone as an area of "stress" or "strain". 12

The above mentioned jobs are done solely by the men - by men from states/regions where women working outside their home is neither encouraged nor socially acceptable. As a result there exists some friction between the women workers and mostly bachelor/single men who come from a social structure where "working women" are seen as "inappropriate". To take Cynthia Cockburn's explanation from her book on the newspaper printing industry women are thought of by men as 'pure' or 'sullied' depending on their location. According to her study men kept women who are mentally contained within the home environment, the man's wife and daughters in the first category. But the women in the workplace and outside the home were described in the second; their perceived sexuality constantly discussed and routinely joked about among the men. 15

- "I "I feel somewhat intimidated and uncomfortable walking around the area where the metal workers and the bar benders work."
 Personal observations, Field Notes
 January 29, 2000
- 12 "The Bihari men and the Malda labor work in this area. These men are notorious. They pass comments every time we cross that area. They don't bring their women to work on construction sites. Only Bilaspuri women work on the site." Nandini, Woman construction worker. February 2, 2000
- "Idon't like anything on this site. There are so many men on this site and all they do is stare!" Chamili, woman worker-serves water to the workers on the site. February 2, 2000

The Laborers from Malda and the women work on different ramps while pouring concrete. This is another indication of the tension that exists between the Bilaspuri women and the (single) male workers from other states.

Personal observations on site, Field notes February 2, 2000

- ¹³ According to a study done by Tripathy, S.N. Rajastahan and Madhya Pradesh were the two states in North India where both male and female members of the household migrated. Incase of the state of Bihar, only the male members migrated to the construction sites and the female members generally stayed back in their villages.
- 14 "Men in this area tease the Bilaspuri women. We just look down and don't answer. When we came to the city to work on a construction site the beldar told us not to look in the eye with them. (avoid confrontation). We were told to remember that whenever anyone says anything to you in the city just look down and walk. We follow that as a rule on the site"

Nandini, Woman construction worker. February 2, 2000

¹⁵ Cockburn, Cynthia (1983), *Brothers: Male Dominance and Technological Change;* Pluto Press Limited, London.

Jos Boys, in her essay - Women and Public Space, also argues that men define women's sexuality by their location in physical space. She says that women are much more restricted than men in the places they can go alone and to "appropriate" areas of work so the making of the physical environment is still being affected by notions about 'proper' settings for women which come directly from the nineteenth century. ¹⁶ Thus, women seem to be confined not only through their allotted role but also because the arrangement of space on site precludes alternatives; the physical patterning of space and activities supports, perpetuates and 'naturalizes' the difficulty of getting beyond their defined local zones.

This seems to be yet another mechanism by which the skilled or the semi-skilled male workforce reinforces a gender division of labor and a gender division of experience in the use of space on a site. The physical arrangement of activities and space (which categories of activities go together, which are kept apart, the pattern by which they are connected) combined with individual freedom of movement, allotted tasks and roles and access to resources often limit the usability of the site for women than for men.

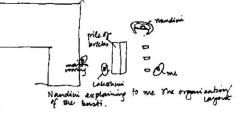
The physical layout or organization of the site thus seems to make "appropriate" settings for different activities that contain "messages" about "proper" gender roles in those spaces. This is a way in which stereotypical ideas about male and female jobs are connected to particular locations that in turn proscribe women's presence in certain areas of the site.

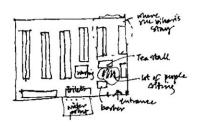
The more we can understand about how stereotypical ideas are made solid in the physical fabric of a construction site, the more we can criticize them by showing the ambiguities and difficulties for women working in these male dominated work environments, and begin to suggest alternatives.

Social organization of the living space

Territorialization of space also extended to the living space. The single male workers occupied one end of the *bustee* while, the women workers and their families occupied the other end. The social organization of the *bustee* was based on regional groups belonging to the same state. The three main lanes of the *bustee* were occupied by the *Bilaspuris* (from the state of Madhya Pradesh), the *Oriyas* (People who put up the scaffolding from the state of Orissa) and the *Biharis* (Bar benders from the state of Bihar). The laborers from *Malda* occupied one corner of the site and were closest to the *Biharis*. Thus, the *Bilaspuris* and the *Biharis* and the *Malda* laborers, the two groups with whom the former had the maximum friction, lived at opposite ends of the *Bustee*.

¹⁶ Boys, Joe (1983), Women and Public Space; In Matrix (1984), Making Space: Women and the man made environment; Pluto Press Limited, London





HIERARCHIES OF WORK

Social organization of the work place - jobs done by men and women

The Ministry of Labor, Government of India, for the purpose of minimum wages categorizes workers in construction and maintenance operations into four grades based skill levels. These are -

- 1. unskilled
- 2. semi-skilled/unskilled supervisory
- 3. skilled/clerical
- 4. highly skilled

Thought the requirements for each of the grades are not explicitly specified the higher the skill category or grade warrants a higher wage. Workers presumably move up the grades as the skills and experience improves.

In contrast, on the site studied, the main contractor, project manager, and supervisors recognized only three skill categories. Construction workers were divided into skilled, semi-skilled and skilled categories based on the levels of skills they possessed and the tasks they did on the site. In my opinion the unskilled and the semi-skilled categories have a very thin dividing line and was not necessarily based on possessing higher or better skills. There exists a perceived notion that certain tasks were more dignified and thus, workers performing them were in a higher skill category even though, the actual work done in two skill categories was not very different in terms of skill required. To illustrate the point the *beldar* operating the vibrator on the site performed the same tasks as the *coolies* till he was chosen to operate the vibrator simply because the others were not willing to stay late. And ever since he was given this new responsibility he had a higher social status even though there was no increase in wages.

There seems to be a clear sexual division of labor in construction work as all the skilled and semi-skilled jobs are done by the men while the women are confined to doing the unskilled jobs. Though, both men and women are found in the unskilled category, the men are able to pick up skills on the job and move up the hierarchy whereas the women are seldom allowed such opportunities. There seems to be a complete absence of women in the skilled categories. The men perform all skilled jobs.² Women are always seen as unskilled, secondary workers and are assigned very specific tasks in the building process. Their roles on a construction site seldom change and are mostly manual in nature. The benefits of the skilled category which according to Bromley and Gerry are both in terms of higher wages and the progressively more interesting and less arduous nature of work are thus, denied to the women.³

- ¹ Government of India/ Ministry of Labor notification. Office of the Chief labor Commissioner. New Delhi. Order no. 1(2)/ 99-LS.II
- ² Kaveri, M.S. Construction workers, unionization and gender: A study of Tamil Nadu construction workers union. In, Prasad, K.V and Joseph, C (1995), Women, Work and Inequality: The reality of gender. National Labor Institute Publications, New Delhi.

 ³ Bromley, R and Gerry, C (Ed.) (1979): Casual work and poverty in third world cities, John Wiley & Sons Ltd., New York.

Hierarchies of Work 13

Even in terms of the designations woman unskilled worker is called a "coolie" or "chittal" in South India which means "small people" while a male unskilled worker is called a "majdoor" or more often a "beldar" which in local parlance connotes some level of skill. Male unskilled workers generally have a higher status than women unskilled workers. As illustrated in the earlier example, even if men and women begin at the same level, the men move up to become a "beldar" or a "mistri" while the women remain "coolies" as long as they remain in construction.

In my opinion the special load carrying helmets that women are given further reinforces the notion that women are unskilled workers whose main tasks are to carry head loads.

- ¹ The Building Worker A study of skills and productivity in Delhi (1995), NICMAR publications, Mumbai
- ² Kaveri, M.S. Construction workers, unionization and gender: A study of Tamil Nadu construction workers union. Prasad, K.V and Joseph, C (1995), Women, Work and Inequality: The reality of gender. National Labor Institute Publications, New Delhi.
- ³ Kisiel, Arlene (1997), Model for a Teaching Practice: Development of a prototype through design. Unpublished Master's thesis, Department of Architecture, MIT

Organizational Structure Analysis

The organizational structure of the staff has been analyzed for the site studied, to see how the existing structure influences communication and work processes. The objective was to identify how decisions were made, where the conflicts lie, what are the lines of communication, responsibilities of the different members and what constitutes a team. I achieved the above through simple decision tree diagrams⁶ and tables. These diagrams were generated by identifying 'tree' positions of the key players and moving the players on the 'tree' as they existed on the site or as I found appropriate. Another aim of the decision trees was to connect the diagrams to supporting data as a way of reinforcing ideas expressed.

What I found most useful with these decision tree diagrams was my ability to clearly understand previously confusing organizational structures and hierarchies that exist on site.

Flierarchies of Work 14

Briefly, I will summarize the issues and conflicts that I found existed on the site and in the organization.

- 1. A very strict hierarchy by skill and status exists on the site. This creates communication problems and reduces the probability of successful team building and organizational learning.
- 2. There are two distinct groups in the organization. One is the Staff of the "company" or the employees of the company while the other group comprises the workers who are *jamadar's* employees but are hired by the company for performing the work. There is no shared vision for the two groups.
- 3. There are informal organizational structures and hierarchies that control information flows and communication.
- 4. The organization is not the ideal scenario for training of women workers. On site learning is not extended to women workers, as they do not get exposed to a variety of jobs necessary to move up the skill hierarchy.

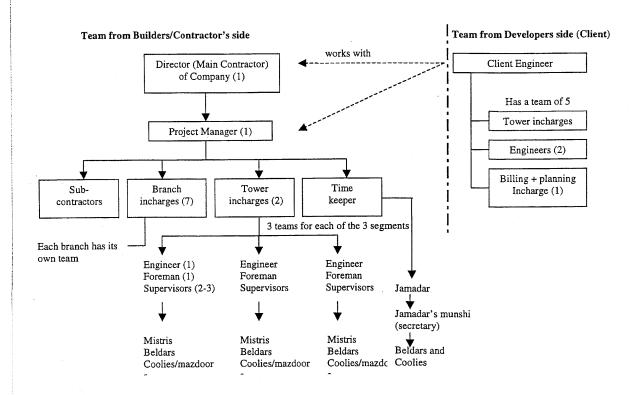
Hierarchies of Work 15

Based on my observations, the following is a list of the work done, based on skill and gender on the construction site studied.

WORK IN CONSTRUCTION BY SKILL AND GENDER

	Men		Women		
Skill category	Nature of Work	Done by	Nature of Work	Done by	
Unskilled	Digging Excavating Demolition Carrying materials (brick, cement, aggregate etc.) Pouring concrete Stacking scaffolding Shuttering plates pipes etc.	'Mazdoor' 50 day contract workers (Malda labor)	Carrying materials (brick, cement, aggregate etc.) Sorting/grading sand gravel etc. Pouring concrete Petty cleaning jobs like picking up broken bricks, wood etc. Cleaning shuttering surface Serving water to all workers Assisting the mason Tasks include: - Mixing mortar, cement slurry - Cleaning tools - Providing tools to the mason - Carrying building materials to the mason - Assisting him	Coolies	
· \			with measurements and plumbing - Assisting in making cement blocks and placing them		
Semi-skilled	Pouring concrete Setting up scaffolding and smutting Operating the vibrator or concrete mixer Preparing concrete blocks for test (actual testing done	Beldar Mistri			

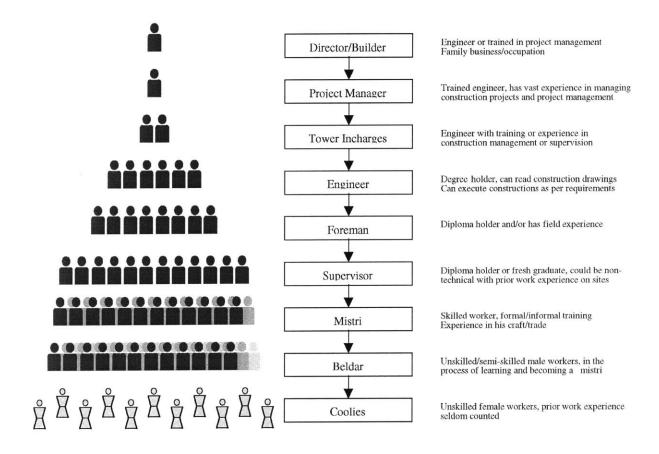
	Bar bending	Bar bender		
	Tying reinforcement	Reinforcement		
	Brick	fitter	-	
	work/plastering/tiling	Mason		
	Wood work and	Carpenter		
	preparing formwork	-	No skilled work	
	Electrical and wiring	Electrician	performed by women	
	Sanitary fixtures	Sanitary fitter		
	Plumbing	Plumber		
Skilled	Painting	Painter		
	Flooring/polishing	Stonework		
		mistri/polisher		
	Repair work	Mechanic		
	Operating	Machine		
	machinery/equipment	operator		
	e.g. cranes, hoist,	1		
,	batching plant			
	S Promise Promise			



Branches	Staff	Main Duties
Construction	Tower incharge (1) Engineers (1) Foreman (1) Supervisors (2-3)	Construction Management Proper execution of construction as per schedule Check reinforcement
Infrastructure	Engineer (1) Foreman (1) Supervisor (1)	Responsible for all equipment on site On and off site infrastructure such as water, electricity, security, workers camp, roads etc. Plan where material is to be dropped and stored on site
Material resources	Storekeeper (1) Purchase incharge (1) Assistants (2-3) Time keeper	Receiving and keeping track or materials received and issued Get orders of materials required by any branch/individual Storekeeper with permission of Project Manager procures it Timekeeper is incharge of schedule and workforce distribution on site, distributes workforce at 8:30AM, gets labor requirements for next day
Mechanical Engineering	Foreman (4) Electrical Mechanical Workshop Water supply Machine operators Batching plant Concrete mixers Compactors Vibrators Cranes Mechanics for repair	Operating, maintenance + repair of machinery, equipment and services
Billing and Planning	Surveyor (1) Billing engineers (3) Planning engineer (1)	Incharge of calculating quantities of reinforcements used, piece rate work and general billing Incharge of schedules, quantities, store requirements
Department of quality control	Quality control engineer (1) Lab assistant (1) Assistants (2)	Responsibility for quality of construction, plastering, concrete work, brick work etc. Frequent testing of concrete and motor mixes
Accounts section	Accountant Assistant	Office administration, salaries, accounts and petty cash

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HIERARCHIES OF POWER



STRUCTURE OF BUILDING INDUSTRY IN INDIA

Background

The building industry represents an important branch of the national economy. In 1992-93 the construction sector accounted for 5.53% of the Gross domestic product of India. It is now being considered as the second largest economic activity next only to agriculture. The construction sector has two main classes of products. One is building which is associated with housing, offices, hospitals, schools and so forth; the other is civil works involving the infrastructure for water supply, transport, irrigation, power generation etc (roads, bridges, dams etc). Typically building tends to account for 70% of the construction market in both the developing and developed countries; civil works making up the rest. My study has focused on the building branch of the construction industry. Thus, if one were to go by the above, in a way the construction industry provides the basis for economic development in a country.

According to the 1991 census the construction industry employed over 5.9 million workers accounting for 1.9% of the country's total work force. Although, as per the National Sample Survey Organization (NSSO) estimates for 1993-94, the construction industry employed 29 million workers, providing employment to 9.2% of the total workforce in the country. The central and state governments are the largest employers in this sector, however, ironically the industry is still categorized in the informal sector.³ Also, the National Commission on self-employed women and women in the informal sector, India, categorizes construction workers in the informal sector. Thus, the construction industry provides employment to a large number of workers in the informal sector, especially women, since 75% of the women in India work in the informal sector. The following are some of the important characteristics of the labor industry in India:

- ¹ PRIA, (1986), Beyond Bricks and Stones: The voice of construction workers; Model Press, New Delhi
- ² Henriod, E et al. (1984), The construction Industry: Issues and strategies in developing countries, World Bank Publication, Washington D.C.
- ³ Ramakrishnan, G, The Tamil Nadu Construction Workers' Union. In Sen, Ilina (1990), A Space within the struggle, Kali for women, New Delhi



Structure of Building Industry in India

Labor intensive and temporary nature of employment -

An important characteristic of the building industry in India is that it is pre-eminently labor intensive probably because labor is still cheap. As pointed out earlier women form a large proportion of the unskilled labor force in the construction industry. Employment is temporary in nature, as the dominant practice is to recruit labor force for only one particular site. Apart for some clear exceptions of a limited number of skilled workers and supervisory staff, the number of skilled workers who obtain continuous long term employment with the same employer is, quite small. Evidently, the recruitment system, in order to serve the limited purpose of the employers must minimize the total wage bill by retrenching from time to time the labor force found redundant, once the contracted work is completed.



Seasonal work -

Building activity is seasonal in character and employment in building trades is subject to seasonal fluctuations influenced largely by climatic conditions. In the northern regions building activity is concentrated in the winter months as in summer the days are too hot for outdoor work. During the rainy season also building activity is more or less at a standstill.⁶

Unregulated employment -

The industry does not have any in-built provision to identify workers and regulate jobs. There are seldom any records maintained at the work site about a worker's experience and thus, the worker is never granted any legal standing.

⁴ Labor Conditions in the Building and Construction Industry in India (1954), Government of India, Ministry of Labor publication, Labor Bureau, Shimla

5 Ibid

6 Ibid

Absence of training -

Another characteristic feature of the building industry is that, by and large workers generally acquire skills through experience rather than through formal training. The masons (mistris), carpenters, painters and water sprayers (bhistis) and others generally get their training on the job or while working as apprentices with their fathers, relatives or friends. The few Industrial Training Institutes (ITI) that exist are of only minor importance.

The case of women construction workers is worse compared to male workers, as they have absolutely no chance of acquiring skills or upward mobility. Women are generally assigned very specific tasks in the building process and their roles seldom change. Their work comprises mostly of unskilled work -they are almost never seen in roles of a mason, carpenter, scaffolder, sanitary fitters, supervisor's etc.

Invisible employer -

The bulk of the labor employed in the building industry is employed through sub-contractors or intermediaries. Consequently, there is no formal working relationship between the employer and the worker. In practice, despite statutory provisions, the employer bears no responsibility towards the workers.

Information flows within the employees in the labor market are meager and unreliable and job seekers are typically uneducated, if not illiterate and unable to take advantage of any organized information that may be available. Intermediaries still occupy a pivotal position in the building industry. The mistry/jamadar group still constitutes the most important group of job informers to the unskilled workers.8 The jamadars, who may or may not be in direct employment of the contractors, are personally known to them and kept posted with their requirements. They hire the required number of workers, retain them during the period of contract, and bring them back to the same contractor when he's awarded a new contract and there's more work. Alternatively, they take their workers to the contractor. They make advance payments (peshgi) to bind the workers to them and often in most cases the workers are known to the jamadar or come from the same village. The contractors find the peshgi system convenient as instead of advancing money to hundreds of individual workers; they advance it to a few contractors who act as personal guarantors for the workers.

It needs to be stressed that the character of the industry and its workforce is such that there is hardly any scope for collective bargaining in the commonly understood sense of the term. The contractor on the basis of work requirement and assessment of experience and ability fixes wages of the workers. Although the government specifies a minimum wage rate through the Minimum Wages regulation, 1948 it is not strictly complied with.⁹

⁷ Devi, R.D and Ravindran, M (1983): Women's work in India; International Social Science Journal, published quarterly by UNESCO Vol:vxxxv, no. 4

8 Ibid

⁹ Gopalan, S (1995): Women and Employment in India; Har- Anand Publishers, New Delhi

Also, no system of guaranteed wage exists on sites in case work is interrupted due to bad weather conditions. Workers often suffer loss of earnings in case of illness or injury. The workers do not get any leave, social security or any other welfare benefits in spite, of provisions of the same, in the existing laws.

¹⁰ Shivakumar, MS, et al. (1991) Recruitment and employment practices in construction industry: A case study of Bangalore, Economic and Political weekly, M-27 Issue 8 Vol XXVI

11 Ibid

Contracting and Sub-contracting

The construction industry in India relies on another characteristic feature- the process of contracting and sub-contracting. Both the public and private sectors in the industry are organized on the basis of contracting, sub-contracting and labor contracts thus, fostering a proliferation of intermediaries. One may loosely define contracting as a relationship under which the contractor does a specified type of work for the client for a specified price. Hence, the contractor is an agent (or agency) which performs a specified task on a contract basis. When a series of contracting occurs, then subsequent contractors are known as Sub-contractors to the main contractor.

Sub-contracting is a contractual relationship under which the taker of the contract (or sub-contractor) does specified types of work according to the technical parameters and design specifications of the order from the giver of the contractor (or parent client). The features of sub-contracting include –

- 1. Hiring of services by a firm for a specific task.
- 2. Supply of specialized services by the sub-contracting firm. The services may include labor supply or the performance of a task.

The nature of the construction mainly determines the form of sub-contracting and the extent to which and item can be sub-contracted. Sub-contracting is most feasible in construction as the production process is divisible and the final product is constituted by a number of parts and sub assemblies with specialized labor.

Also, the activities can be divided into various constituents that can be carried out independently. ¹⁰ Thus, activities like masonry, carpentry, shuttering, bar-bending, concreting, painting, plumbing, electrical installation etc are all tasks that are sub-contracted.

The fundamental basis of the sub-contracting relationship in construction includes the principles of division of labor and specialization. Moreover, small firms have relatively lower overhead costs. Where several sub-contractors participate in the construction of a building, the main contractor firm is mainly involved in the overall co-ordination, decision making, supervision & quality control and day to day scheduling of the project. Since this involves specialization, economies resulting from it could be substantial. Sub-contracting also offers large firms considerable flexibility to face market fluctuations as the main contractor can distribute the burden of market fluctuations among the sub-contractors.¹¹

Thus, sub contracting has created a long tailed participant structure and a hierarchy of actors in the construction process. The division, nature and diversity of this hierarchy depends much on the volume of work and the fundamental interests of the main contractor. 12

Type of contract and duration of employment.

In the construction industry workers are employed on a contractual basis. The contractual agreements between the main contractor (client) and the labor contractor/intermediary (or *jamadar*) generally provide for what the labor contractor is expected to do about his laborers. Between these two private parties, the contract agreement generally specifies only the labor costs and often remains silent about recruitment procedures, labor welfare measures, accident compensation or other welfare benefits. Employing "sub-contracted" labor the main contractor distances himself from the contractual arrangements between the labor contractor and his laborers.

The main contractor however through and unwritten understanding with the labor contractor aims to provide continuous job opportunities for the labor contractor's laborers for the longest possible duration. The labor contractor based on this assurance in turn wants his laborers to commit themselves to working for him for the duration of the present contract or other assignments thereafter.

Shivkumar et al describes an alarming aspect of this type of loose contractual arrangement. They point at the high incidence of inside subcontracting of labor that occurs on construction sites as an outcome of such contract agreements. According to them there is a general tendency to further "lend out" the laborers to other sub-contractors on the project.

Thus, the same worker would be employed by different sub-contractors during different periods of the construction process. This according to them is a systematic disorganization strategy of the management to dissuade workers from organizing themselves and claiming any welfare benefits. The constant shuffling of labor from working for one contractor to another makes the principal employer invisible and poses serious problems in securing benefits from employers.

Another type of contract agreement observed on the site studied, was a fifty-day work contract. Under this agreement the labor contractor or *jamadar* brought a group of male laborers (in this case from a place called Malda) to work on a construction site for a period of fifty days on the payment of Rs. 2400 (USD 60 approx.).

12 The Builders (main contractors) subcontract all jobs. The equipment, co-ordination and management of the project and on time delivery are the responsibility of the Builder. A sub-contractor is employed for a job on the basis of prior experience with him -if we've known him over another project, rate he quotes, terms of payment, quality of work promised, delivery of work within the time frame, number of workers he will employ etc. Previous work experience and recommendations count if we are working with someone for the first time. I release kharchi (advance payment) to the sub-contractor from time to time on a need basis to take care of the working expenses and later I clear the actual bill (for the work done) when there is one. But before the payment is made, our representative checks the number of laborers working on the job, the progress and quality of work. Incase we supply the labor to a particular sub-contractor to complete a particular job then the wages of the labor are subtracted from the payment made to him for the total work.

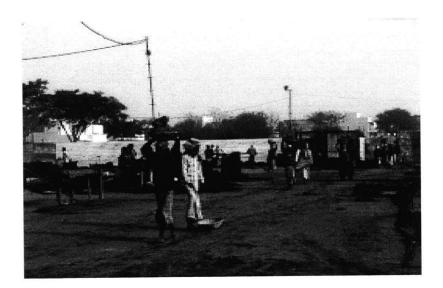
Conversation with the Project Manager on the system of sub-contracting jobs and the system of payments

January 27, 2000

¹³ Shivakumar, MS, et al. (1991) Recruitment and employment practices in construction industry: A case study of Bangalore, Economic and Political Weekly, M-27 Issue 8 Vol XXVI

The laborers were given a place to stay in the labor camp near the site and food for this contract period. Half the payment was made to them or their families before they came to the construction site and the other half was paid to them on the completion of the contract. After fifty days these workers left and a new batch came to the site. These workers were given work (mostly manual) by various sub-contractors. When the payment for the total work done is made to the sub-contractors, the cost of labor is deducted from it.

The sub-contractors on the other hand, generally work on a piece-rate contract basis. It suits them to keep the pace of work swift. Workers are forced to work extended hours without any additional compensation, do night shifts or overtime at normal wage rates to complete work before the deadline saving labor costs and increasing profits for the sub-contractors.



ENTRY, RECRUITMENT AND EMPLOYMENT PRACTICES

Identification of systems and structures relating to entry, selection and recruitment of workers at a construction site is an issue that warrants more attention as construction work is relatively temporary and transient in nature. Thus, is potentially quite distinct from other industries in terms of procedures and criteria adopted for labor recruitment.

Shivkumar, et al. (1991) have argued that there is a set of phenomena which, while obviously exploitative in character, cannot be adequately understood, unless some of the forces in that situation are adequately analyzed. According to them this is a situation in which the factor service is acquired "cheaply" in a specific market because the factor's alternative opportunities have been systematically rendered less accessible or less rewarding for laborers.

Though construction workers constitute around 11.9% of the work force in the urban areas and about 4.4% in the rural areas, little attention has been paid towards identifying and documenting the range of recruitment and selection strategies that are adopted within the industry especially for the women.

Entry into construction

One notices that most construction workers are migrants from rural areas. Inter-area mobility seems particularly strong in the building trades. Though most first time workers in the construction industry do not have special skills, they are all experienced in some form of manual labor, which obviously is a part of the rural economy and lifestyle. Due to the large measure of commonness of skill requirements that construction work shares with the other industries and the absence of any formal apprenticeship or vocational training requirements for joining construction, entry into the profession is relatively easier (though not always smooth). Construction work such as excavation, digging, carrying head loads etc. is essentially agricultural in nature. Consequently, for the laborers coming from various forms of farming backgrounds there is no radical change in the pattern of work.

Often the labor that earlier subsisted on agriculture and allied activities migrate to the city looking for other avenues of work due to various reasons like –

- 1. increasing pressures on cultivable land in rural areas due to a declining cultivable land ratio;
- 2. stagnant agricultural activities (poor soil conditions, lack of irrigation, deforestation) and consequent low wages;
- 3. repeated natural calamities like droughts etc.;
- 4. absence of industrialization or slow pace of development;
- 5. exclusion of local people in the development process;

- 6. progressive reduction of communal rights of pre-capitalist peasant and tribal societies leading to a rapid degeneration of these societies;
- 7. personal debts, etc.;

Often the degree of poverty in rural areas is one of the main reasons for the labor force to take up construction work. Thus, one of the ways to recruit many laborers in a short time (when labor demand increases) and with little effort is to recruit people from rural areas, where many people cannot find sufficient work and at times even fancy some employment in the city. In conditions of uncertainty of employment laborers are often willing to work at lower wages. ¹

Thus, they are accepted as unskilled laborers during peak season when demand for labor is high. Evidence suggests that many construction laborers have entered the industry during peak season and have remained there making a rapidly growing labor force immigrants to the city rather than seasonal migrants. Such transfer of rural labor force with elementary skill has been a dominant feature in the construction industry.

Networks for obtaining employment

There are three most common modes by which laborers gain entry into the industry namely through –

- 1. intermediaries, like the mistri or jamadar
- 2. naka mandies or market squares
- 3. direct employment.

1. The Mistri/Jamadar market

The Mistri/Jamadar market refers to the market segment controlled by intermediaries.

The most accepted means of entry into the building industry is by working under an experienced *mistri*. The *mistri* is a skilled person who specializes in one/two trades and operates independently. A *mistri* procures a job contract from a contractor or individual householders and is paid by measurement of work or fixed sum for the agreed output. *Mistris* may be electricians, plumbers, carpenters, painters, bricklayers etc. The *mistri* often works with a helper thus giving employment to a semi-skilled or unskilled worker.

Another very unique "post of entry" into construction is the *jamadar* (*maistry* or *mukadam* are regional names of the same). A *jamadar* is basically a middleman who is responsible to the main contractor for the supply of necessary labor force according to the skill level and number required. For this service the *jamadar* takes a monthly commission from the contractor. When in need of labor the contractor simply contacts the *jamadar* thus avoiding any direct dealings with the labor and reducing their obligations towards the labor to a minimum.

¹ "The millions of displaced people don't exist any more. When history is written they won't he in it. Not even as statistics.... Once they start rolling there is no resting place. The great majority is eventually absorbed into slums on the periphery of our great cities, where it coalesces into an immense pool of cheap construction labor."

Arundhati Rov

in the essay- The Greater Common Good

The Cost of Living

The contractor generally advances some amount of money to the *jamadar* and also to enable him travel to the labor catchment areas and bring laborers to the work site. The *jamadar* travels to his place of contact (generally his hometown or village) to recruit laborers, and advances a sum of money called "peshgi" (advance payment) to enable the laborers to travel to the city. At times the laborers hear about the job opportunities from their friends and relatives who have worked in construction before and get in touch with a *jamadar*. The *jamadar* is the first contact person for the laborer in the city environs. In the city the *jamadar* functions as the laborer's friend, guide and mentor. Once the laborer becomes a part of the *jamadar*'s gang (*jamadar*'s are also referred to as a gangman) the *jamadar* becomes his guarantor to provide employment. Of course, for providing this service the *jamadar* takes a daily cut from the laborer's wage.

Entry through this system is somewhat restricted and resembles a "closed shop" system as the *jamadar* often employ persons known to them, from their own caste, village or clan. Since he has to stand guarantee for money advanced to the laborers, it would be logical for him to look for laborers who can be relied upon and upon whom social and community pressure can be exerted in case of default. Consequently, it is not uncommon to be able to identify work sites by the caste or village of the laborers working there. This approach also makes the entire family to migrate together. It is then a caravan of sorts which moves to the construction site. For a woman to be hired by a *jamadar* she has to be accompanied by a male member – her husband, son, father or any other male relative.

2. Naka Mandis or market squares

The Naka Mandis refer to the market place that caters to the mass of individual householders who need casual building labor for odd jobs. These markets are found all over the city, frequently located close to shops selling various kinds of building materials. They function from 8 AM to 10 AM on all days of the week. Construction workers, in search of work wait for customers at these mandis. People needing to get small jobs done like masonry, plumbing, painting, plastering, tiling, waterproofing or any other repair work can hire the required workers from these places. The wage rate is negotiated and the workers are taken to the respective workplaces. More often its is the skilled (Mistri) or semi-skilled workers who has his own tools gets hired and he in turn chooses his helper/s to work with him.

Often the Mistri estimates the building material required for a particular job and takes the customer to the shop for purchases. The Mistri in turn gets a commission from the shop he has recommended for purchase of materials. His earnings often also include a cut from the wage of the helper hired by him and his own wages.

² "We found out about construction work from some people in our village who were already doing this work. They told us that there was work available in the city and we decided to come along with them. I have come here with my son and two other children. My son also works with the mistri on site My hushand manages agriculture in the village with four other children Once we came here the jamadar got us the joh."

Conversation with Shanti, a woman construction worker
January 28, 2000

³ "The jamadar gave us kharchi(advanced payments) till be got us a job. He later deducted this from my salary."

Conversation with Shanti, a woman construction worker
January 28, 2000

- ⁴ The women workers all wore the same nose rings. They were all "Bilaspuris" from the state of Madhya Pradesh Site observations/ field notes January 31, 2000
- ⁵ Shivakumar, MS, et al. (1991) Recruitment and employment practices in construction industry: A case study of Bangalore, Economic and Political weekly, M-27 Issue 8 Vol XXVI
- "I have come here with my brother thought my brother is currently working on another site. My son and daughter-in-law stay in the village."

Conversation with Nandini, a woman construction worker February 2, 2000

- ⁷ Shivakumar, MS, et al. (1991) Recruitment and employment practices in construction industry: A case study of Bangalore, Economic & Political Weekly, M-27 Issue 8 Vol XXVI
- " "Many of those who have heen resettled are people who have lived all their lives deep in the forest with virtually no contact with money and the modern world. Suddenly they find themselves left with the option of starving to death or walking several kilometers to the nearest town, sitting in the market place (both men and women) and offering themselves as wage lahorers like goods on sale."

Arundhati Roy in the essay- The Greater Common Good The Cost of Living Naka Mandis provide an oppurtunity for moonlighting to the skilled and semiskilled workers holding regular jobs with contractors and clients.

These *naka mandis* or market squares where all levels of workers present themselves can be found all over the country and are a way of finding jobs for workers who do not have regular employment or contacts like friends or relatives in the construction industry. In the South of India a lot of women also find employment at these market squares.⁹

⁹ Roelofs, A (1989): Carrying twice the burden; the life of female construction laborers in Vellore, Tamil Nadu, India, Urban research working paper, Institute of Cultural Anthropology, Amsterdam



Source: Carrying twice the burden: the life of female construction laborers in Vellore, Tamil Nadu, India,

Shivkumar et al, (1991) however, in their study have pointed out that construction laborers frequenting these traditional meeting places have reduced as both contractors and laborers were relying more on labor contractors. They attributed the discontinuation of traditional meeting venues to the increasing power of the labor contractors in recruitment and to piece-contracting systems.

3. Direct employment

The third form of entry into the construction industry is "direct recruitment". 10 Construction companies often maintain a core group of tradesmen and also hire workers on a project basis. Direct recruitment is often limited to the skilled workforce. 11 The process of direct recruitment is simple. In many instances, an applicant brings references from previous employers or from past work experience. There appears to be a great deal of opposition to permitting workers to enter the construction industry without proper references or sponsorship. 12 Once the worker picks up the job and accepts the terms and conditions of the contractor or jamadar it is possible that the worker might be accepted more or less as a "permanent" worker. This does not mean that the relationship will be formalized through legal means like appointments, benefits etc. This is an unwritten (and mostly oral) understanding between the two parties to the extent that the contractor would provide continuous job opportunities to the worker. This might be achieved by transferring the worker from one work site to another on a regular basis; or referring the worker to another contractor during lean periods. This way the worker is assured of continuous job opportunities

10 "I noticed a mistri's resume lying at the Director's table. The cover form was filled put in English and there were some photocopies of certificates attached too"

Site observation/Field notes February 2, 2000

"We normally prefer to hire workers through the jamadar as it is less of a hassle. We hire some people directly if they are experienced or good at their work. Mistris looking for jobs either speak to me or the Project Manager. Between the two of us we decide whom to hire" Conversation with the Director of the company (Main Contractors) February 2, 2000

¹² Shivakumar, et al. (1991) Recruitment and employment practices in construction industry: A case study of Bangalore, Economic & Political Weekly, M-27 Issue 8 Vol XXVI and the building contractor need not search for labor at all times. Thus, a reservoir of labor is created for the building contractor.

Process of recruitment

In understanding the process of selection and recruitment adopted by main contractors, one must take full account of the broad factors that form the whole approach to recruitment. While the scope of recruitment undertaken by main contractors is often limited (by choice), where it does occur, emphasis is on a relatively informal, less bureaucratic process. Mostly, for recruitment neither the main contractor nor the site engineers are interested in "wasting time".

Even if the contractors have an opportunity to recruit laborers directly, on their own on long term projects, they prefer to recruit through *jamadars*¹³ as direct recruitment in large numbers would also mean Consequently, more emphasis is given to recruitment through intermediaries or at times for skilled workers to direct callers at site in the morning.

Even if the contractors have an oppurtunity to recruit laborers directly, on their own on long term projects, they prefer to recruit through jamadars as direct recruitment in large numbers would also mean having to follow labor welfare regulations. ¹⁴ Because of this tacit understanding between the contractor and the *jamadar*, laborers are also forced to rely heavily on the intermediaries and seldom want to go against their terms and conditions.

The *jamadar* acts on behalf of the contractor, recruiting and dismissing laborers, favoring those loyal to him and serving as a buffer between the contractor and laborers. It is often cited that for "easy recruitment" one has to have

- the "right contacts";
- 2. good relationship with the *jamadar* meaning, loyalty to him;
- 3. continued personal sacrifices to maintain that good relationship. Thus, work ethics and recruitment procedures of a *jamadar* are said to depend much on the conduct of his "gang men".

The process of whatever little direct recruitment that occurs is simple. Contractors or their agent determine the workers' qualifications through a brief, informal discussion with the aspiring worker. In many instances, a currently working member sponsors an applicant even for this "interview" and appointment maybe influenced by "contacts" with this working member.

A woman's job is almost always negotiated for her by her husband or any other male member who accompanies her and stands as a guarantor for her. The desire of the wife to work alongside her husband 13 "We don't deal with the labor directly. The jamadar brings the labor for us. We pay him and he in turn pays his labor." Conversation with the Director of the company (Main Contractors) January 27, 2000

¹⁴ Shivakumar, et al. (1991) Recruitment and employment practices in construction industry: A case study of Bangalore, Economic & Political Weekly, M-27 Issue 8 Vol XXVI

^{15 &}quot;We hire women because the beldar (her husband) puts pressure on us to hire his wife. It's like a blackmail that he uses on us. He says he will take up the job only if his wife is also given employment on site."

Conversation with the Director of the company (Main Contractors)
January 27, 2000

often results in the woman accepting any type of work and often even at lower wages. 15

¹⁶ The Building Worker – A study of skills and productivity in Delhi (1995), NICMAR publications, Mumbai

Channels of Information

Information flows among the employees in the labor market are meager, unreliable. Job seekers are typically uneducated, if not illiterate, ill informed about wage structures and unable to take advantage of any organized information that may be available. Traditional, informal sources of job information still play a major role in the workers' entry in the building market. In a study done by the National Institute of construction management and research (NICMAR) in 1992-93 on construction workers in Delhi, family and friends were the primary source of job information and procurement for 84% of the respondents. In Intermediaries like the *mistri* or *jamadar* continued to occupy a pivotal position in the building industry for procuring jobs. The NICMAR study also shows that 12% of the respondents found jobs on the day of arrival at the city while over 60% found them in less then a month, suggesting that jobs were pre-arranged before the arrival of the worker in the city.

LEARNING NETWORKS

Skill acquisition and advancement

There are generally no operational standards as to what the desirable qualifications of a construction laborer prior to recruitment. It is not necessary to have a formal apprenticeship or vocational education for entry into construction. As mentioned earlier, most laborers who enter the industry are experienced in some form of manual labor, which is a part of the rural economy and lifestyle. Evidence suggests that many workers are accepted as unskilled workers when demand is high and later remain there.

It is possible for a male construction worker to start at an unskilled level and work his way up through the ranks of a skilled worker. A characteristic feature of the building trades is that, by and large, workers acquire skills through "hands-on" experience rather than formal training.¹ Thus, most skilled workers obtain skills from informal training or learning on the job. The NICMAR study points out that 94 % of the (unskilled) respondents in Delhi did not possess skills to perform their jobs when they were first employed in the building industry; skill improvements took place for 70% of them.²

In the normal course of work a worker may learn skills with the help of other skilled workers who are friends or members of the family. Once on site, the workers may be given a demonstration of the job by other workers and subsequently, pickup considerable skill by observation and practice. Gradually one acquires skills to handle complex equipment too. One may get a chance to gain experience when the going is easy. A workers chance to gain experience on complicated equipment and tasks may depend on

- 1. his ability to make friends and gain the "goodwill" of the jamadar
- 2. his relationship with the foreman or first-line supervisor, who is in a position to assign jobs on which he can gain experience, or look the other way while he performs these;
- 3. Fortuitous circumstances such as urgent or rush order, when usual occupational barriers are let down.

Many a time, a worker gets ahead by exaggerating his experience when seeking work with a new contractor. He may claim to be experienced on a piece of equipment which he may have handles only briefly before. Once placed on the more demanding job the worker learns his way through. Of course the contractor may be suspicious of his claims, but in times of labor shortage, when skilled men are not available, the employer often takes whomever he gets. By the time the peak period is over the new man would have learnt his job well enough to keep it.

"Thave been working as a mason for 10 years. I started as a heldar but then I learnt the work and have now become a mason. It took me two years before I was confident that I could work on my own. I work independently; I go work for anyone who pays me more. Women cant learn masonry as they cant jump up and down on the pedh (the platform made of scaffolding on which the mason works)"

Conversations with a mason on site January 31, 2000

² The Building Worker - A study of skills and productivity in Delhi (1995), NICMAR publications, Mumbai

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Skills can also be acquired by some sort of formal training or apprenticeship under a master tradesman or mistri. Often this way of skill acquisition may be hereditary, as trades may be family businesses. In this system the trainee is either a relative of the teacher or instructor or has to be a part of the "juth" or "select group" of the mistri. No cash payment is made for the instructions instead the system depends much on the goodwill of the skilled tradesman to take an apprentice under his wing or tutelage.3 The training varies in intensity and length depending on the mistri and the ability of the apprentice trainee. The time taken for an apprentice trainee to acquire a particular skill depends largely on the mistri's opinion of his ability; the trainee remains a "shagirdh" or apprentice until he is ready to work on his own. 4 Most skilled masons on the site I surveyed agreed that it took about two years of working as an apprentice before one could work independently. The social costs of this informal training are often hidden and find expression in terms of lower quality construction and wastage of materials.

The few Industrial Training Institutes (ITI) that exist are of only minor importance. Contractors are of the opinion that ITI-trained graduates are not given preference as their wage expectations are too high and also because they viewed themselves as above the skilled workers. At the same time trainees are not trained or competent enough to work under tough site conditions nor is their productivity any higher than the other skilled workers who had not been similarly trained. ⁵

³ "I like to do whatever work the supervisor gives me. Only if one is in the mason's juth (select group) can he learn to become a mason. How else can you learn?

Sharad, male helper, January 31, 2000

4" When you are learning the work under a mistri he shows you how to do it. If you make a mistake the mistri will correct it. It took me ahout two years to learn this work. I have been a mason for the past 3 years. I was looking for work when I came to this site. I have been working here for the past 6 days.

To teach someone this work I have to take him in my juth (select group)" Conversations with a male mason February 1, 2000

⁵ Labor Conditions in the Building and Construction Industry in India (1954), Government of India, Ministry of Labor publication, Labor Bureau, Shimla

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Learning circles for women – attitudes of men and women

Women construction workers are almost always classified as unskilled workers. Women too, like the men start by picking up the job through observation and practice. Women workers already working on site may demonstrate the job and help the new workers. Often coming from an agricultural background, women too are well versed with tasks such as digging, lifting and carrying. However, in the course of time the male worker get the opportunity to become a skilled worker, but the same is not granted to the woman.

Although, women workers pick up some skills working as helpers to masons or *beldars* they are seldom trusted to possess any skills and work independently. My site observations show that some of the skills that women helpers picked up on site included –

- A fairly skillful use of the mason's tools or implements,
- preparing the mortar mix or the cement slurry,
- measuring quantities of the aggregate and cement before pouring it into the mixer,
- assisting the mason in measurements or use of the plumb line etc.

Most male co-workers however believe that skill is irrelevant for women's work thus, in a way discouraging them from picking up any skills on the job and forcing them to continue doing unskilled jobs. This notion so set that even the women have come to accept their work only as "coolies" or secondary workers. They fail to see their work as crucial to the production process. Believing that they would not be allowed to become skilled workers, women workers don't have any motivation to acquire skills. In fact the NICMAR study shows that about 24 % of the workforce who were women believed they would remain unskilled and low paid despite whatever training they may undergo. 9

- ⁶ "When I first came here I did not know the work but then the other coolies showed it to me. Now I can do whatever work the supervisor gives me". Devi, woman construction worker February 3, 2000
- ⁷ "We do majdoori (manual lahor) in the village too so we already know this work. We do not find it difficult"

Manglee, woman construction worker January 31, 2000

8 The Building Worker – A study of skills and productivity in Delhi (1995), NICMAR publications, Mumbai

9 Ibid

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The above mentioned notions are perpetuated by beliefs male workers hold that women can not acquire skills, as they are restricted in doing certain jobs because of their dress or because of their inability to climb on scaffolding platforms or because they are illiterate and physically weaker than the men. This attitude is so engrained that it is hard for a male worker to accept a skilled woman worker at the same site. ¹⁰ Geetha, a well-known activist, in her experience with women construction workers, also mentions discrimination faced by women even after skill acquisition. Although some women have been trained in masonry, no promotional avenues exist for them. In the male dominated system of operating through intermediaries, women with skills do not find employment. ¹¹



¹⁰ In 1977, after completing a federally funded, four month hands-on training program in construction skills- Non traditional occupations for women – I called up the electricians union ready to become an apprentice. I expected to procedure to be simple. The man on the phone – having determined that I was white and not covered by any federal requirements at the time – laid it out straight, "the unions don't want you, the contractors don't want you. We will call you if we need you".

- Susan
From We will call you if we need you
By Susan Eisenberg

¹¹ Geetha, "A struggle within a struggle: The Unionization of women in the informal sector in Tamil Nadu". In Marilyn Carr (Ed.), et al (1996): Speaking Out: Women's economic empowerment in South Asia, Women Ink, New Delhi.

The site studied, fell under Area B in the Table, where the prevailing wage rates were Rs. 56.26 per day for an unskilled worker. However, in conversations with workers on the site it was revealed that the workers were being paid only Rs. 55 per day in wages. The main contractor, on questioning, claimed to be paying the official wage rate to the *jamadar* and was not concerned with the wage agreement the *jamadar* had with his labor. This implied that the *jamadar* was in fact paying his workers less than the official wage rate and pocketing Rs.1.26 from the wage of each worker he provided work to.

The method of wage payment seems to be closely related to the recruitment system in the industry whereby, workers directly recruited receive their wages from the contractors while a majority of unskilled workers receive their wages through the *jamadar*. With a number of employers on a site there is no specific disbursement of wages; however, there exists an accepted norm by which payments are made.

On the construction site studied, the person in charge of the workforce distribution (according to the schedule of requirements) known as the timekeeper maintains a roster of laborers. The roster specifies the different jobs (or tasks) in each block, the number of laborers employed, their names, the name of the *jamadar* in charge and other details entered in easy language with simple references. He maintains a separate muster roll register for labor directly employed by the main contractor. The timekeeper takes attendance 2-3 times a day and also conducts spot checks on the labor to make sure no one is missing or absent. Similarly, the *jamadar* or his *munshi* also maintains a similar attendance register. He too takes an attendance check on his laborers 2-3 times in a day and also maintains a record of the number of hours and overtime hours each laborer has put into work every day. For the main contractor the supervisor keeps a record of the number of hours and overtime hours done by the labor.

Thus, muster roles are generally maintained by these two groups and these are tallied at the end of the day. At the end of each week the Site Engineers compute the wages payable to each worker and consolidate them on the basis of the work done or labor supplied. At the end of the month for subcontracted labor, the amount is passed on to the jamadar or labor sub-contractor who then distributes the wages to the laborers. Thus, the laborers do not receive the wages directly from the contractor. In some cases the sub-contractors also hand over the total amount of payment to the jamadar who in turn is to distribute to the workers. This way both the main contractor and the sub-contractors avoid direct involvement with the laborers and the jamadar becomes the key person in such money transactions at the work site.

The wages are distributed on the 10th of every month and each worker signs or puts a thumb impression on the record register on receiving the wages. However, at times the *jamadar* are known for withholding the payments for months to avoid losing labor. The *jamadar* instead advances a sum of money to meet the immediate needs of the workers household. This advance payment is known as "*kharchi*". The *jamadar* also encourages the workers to take small, generally interest-free, loans called "*udhari*" from him to meet unforeseen expenses. The amount advanced and a small interest on the *udhari* (*if charged*) maybe deducted when the payment is finally made to the laborers.

The jamadar also takes a daily "cut" or commission from the workers. This is his service charge for providing employment to the workers. Under the system of sub-contracting the workers have no direct links with the contractors and the jamadar emerges as the defacto employer. On the site studied, the jamadar took a daily "cut" of Rs. 5 (around 10 cents) from a worker who earned on an average, a wage of Rs. 55 (USD 1.35 approx). This "cut" amounts to 9% of what the worker earns everyday. Thus, the worker receives a wage lower than the prescribed minimum wage, a sum less interest payable (if any) to the jamadar and less advances received.

The prevailing average daily wage rates as per the National Sample Survey Organization (NSSO), 1987-88 clearly brings out the fact that the average daily wages for women workers, whether it be in rural or urban areas, are significantly lower than for men workers. Though not observed on the site surveyed, discrimination of wage on the basis of gender is widely prevalent in the industry. The daily wages being paid to women laborers are less than the statutory wages on many work sites. Moreover, as the minimum wage varies from zone to zone, district to district and state to state and as the worker moves from one place to another, the wage structure never remains fixed.

Work hours and overtime wages

The number of working hours and overtime provisions for construction workers are covered under various legislation that were initially formulated for other industries but have now have been extended to cover the construction industry. As per the Factories Act, 1948; The Model Rules of the Central Public Works Department (CPWD) and a new legislation called The Building and other Construction workers (Regulation of employment and conditions of service) Act, 1996; the daily working hours for an adult worker should not exceed 9 hours in a day or 48 hours in a week. A minimum rest interval of half-hour for every five hours of continuous work is also specified. A maximum working day on a site is not to spread beyond 12 hours on any day, inclusive of rest interval.

A worker working for more than 9 hours a day or 48 hours in a week is entitled to wages at twice the rate or ordinary wages. The maximum a worker can work is 60 hours per week, inclusive of overtime. The total overtime is not to exceed 75 hours in one quarter in a year. The law also stipulates that a worker who is employed in construction work on a shift that extends beyond midnight, is entitled to a day of rest (24 hours) beginning from the time the shift ends.

However, the actual working conditions observed on site were far from what the regulation stipulates. There were no fixed working hours. Although, the "official" work hours were between 8:30 AM and 5:30 PM with break of an hour for lunch, workers were seen working beyond 5:30 PM especially when concrete was being poured. The evening or late night shift referred to as overtime work was merely an extension of the working hours rather than an increase in wage differentials and the workers reported to work at 8:30 AM in spite of working late the previous night. Workers worked all seven days a week. A day off resulted in loss of wages since the workers work on a daily wage basis. The skilled workers however, worked only till 5 PM. The proportion of workers putting in more than 9 hours of work a day declines with their skill levels.⁷

Holidays and Maternity leave

There is no concept of paid leave that exists in the construction industry. Workers, both men and women are not entitled for any leave or holiday with wages and are paid only for the days they actually work. It was observed that workers were denied a day's wage even on the occasion of national holidays or festivals when work did not take place on a site. Workers are also not ordinarily paid wages in case of leave of absence due to illness or injury.

In view of the large number of women working in the industry, provisions have been made for providing maternity leave to women workers. The minimum qualifying period of employment to claim maternity leave is six months preceding the date of maternity leave. Although, legislation makes it obligatory on the part of contractors to give paid maternity leave up to a maximum of eight weeks in case of delivery and three weeks in case of a miscarriage this leave benefit is seldom given to women workers. On the construction site where my research was done, only one woman claimed to have received any maternity leave. She was the woman who supplied water to all the workers and was the only woman worker who was a direct employee of the main contractor. Studies have shown that contractors conveniently evade this rule by causing a short break in the service of the expecting mother before the completion of the qualifying period. Besides, very few women work continuously for the same contractor for an appreciable length of time.

Also, the duration of a particular work under a contractor may be less than six months. The casual nature of women's employment in the industry, combined with ignorance and lack of awareness, makes it very hard for them to claim any leave benefits. Thus, the maternity leave clause in the legislation, as it exists today, has not been an effective tool to provide protection for women workers.

Insurance and compensation

One of the conditions of contract in all public works is that the contractor shall be responsible for and shall pay any compensation to his workforce payable under the Workmen's Compensation Act for injuries caused to the workers during work. Incase of accidents the contractors usually meet the expenses of medical aid but incase of illness the contractors do not ordinarily provide medical care and the workers are compelled to bear expenses towards this. ⁹ As mentioned earlier, since contract agreements between the contractor and the jamadar are silent on labor welfare measures and accident compensation, in many of the accident cases, the employer directly settles the claim with the affected party without intimating the concerned authorities. Things are considered to be a private affair between the affected party and the contractor and workers are often forced to take whatever little compensation- if at all, is paid to them.

Safety and Medical facilities

The CPWD Safety Code, The Factories Act and the contractors labor regulations all lay down the standards of health and safety conditions to be provided by contractors at work sites. The Building and other Construction workers (regulation of employment and conditions of service) Act, 1996, the new regulation has by far, the most extensive and detailed section on safety of workers and medical provisions to be provided by the employer. This legislation limits the maximum weight that may be lifted by a man to 50 kg and that lifted by a woman to 30 kg. It also calls for the employer to provide protective gear to workers like close fitting clothing, gloves, helmets, safety goggles, proper footwear, respirator masks and water proof clothing to protect against rain. Workers, working on heights are required to be provided with safety belts and lifelines as per relevant National Standards and are also to be trained about the correct use and regular maintenance of the above equipment.

This new regulation also requires a contractor to have fire-extinguishing equipment to extinguish portable fires on the site and an adequate water supply at ample pressure for the same.

A readily accessible first aid box and an arrangement with a nearby hospital for providing an ambulance van for transportation of serious cases of accident and sickness are some of the other features of this regulation.

The workers, especially women workers employed on the construction site studied, were found carrying heavy loads of cement bags, mortar, bricks etc., which is a lot of cases weighed more than 30 kg. This happened in spite of existing legislation that puts a ceiling on the maximum weight a worker should carry. The crane operator and workers working on the hoist were given a harness and a lifeline. The concern for safety was definitely there on site. Contractors did not want to risk any chances of major injuries to workers.

No fire extinguishers were observed, though a first aid box was maintained. The only protective gear that was provided to most workers were helmets. The helmets were not provided for example to the contract labor from *Malda* and as mentioned earlier, a special load-carrying helmet was provided for the women workers. There were many instances when workers did not wear the helmet provided. My conversations with workers revealed that the helmets did not fit well and were uncomfortable to wear, especially during the summer months. A few workers were provided with gloves though most carried material with their bare hands; their hands and feet were found to be in a pitiable condition due to scratches, dryness and cracking. Workers found gloves uncomfortable to wear like the helmets; a few even felt it slowed down the work. Along with the safety issue there also seems to be an issue of proper design of protective gear for construction workers.

Other Amenities

Other amenities to be provided by contractors at work sites, under the above mentioned laws, include a provision for safe drinking water for the workers, separate restroom and urinal facilities for female and male workers on site, a rest-shelter, a canteen serving tea, snacks and meals

(on a no-profit-no-loss basis) and a crèche for the children of the workers.

Few of the above mention amenities were provided on the surveyed, work site. There was no distinction made between the taps meant for drinking water and for laundry and washing. The workers also used the untreated water used for construction for, washing and bathing purposes. The two women workers, who provided drinking water to all the workers in open buckets, filled them up from taps meant for laundry and washing. The buckets they served the water in, were uncovered and it was possible for the water to get contaminated with all the dust that flies on the site.

There were no rest room facilities provided on the site and workers were often seen relieving themselves in the open fields, near the boundary wall of the site. Most workers found it cumbersome to go to use the toilet facilities provided in the labor camp nearby, while working on site. On many occasions, groups of women were seen going behind the boundary wall to relieve themselves while work was going on.

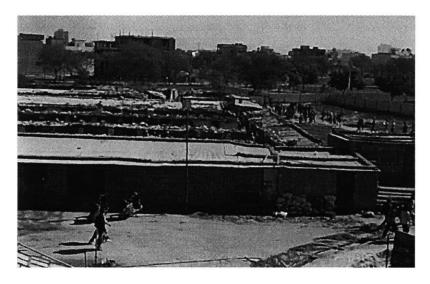
There was no rest shelter provided for the workers either. Most workers who stayed in the labor camp went home for lunch; while the others sat near the canteen or in a shaded area and had their lunch. There was no crèche facility for the workers children though, the contractors claimed to have hired *munshi's* wife to look after the children. Most women however, claimed that their older children looked after the younger children while they were away on site. Children thus, miss out on any form of basic education. Also, it was observed that there are no provision for schooling or any other educational facility in the legislations, for children for construction workers.

LIVING CONDITIONS

Housing, amenities and services

The Model Rules of the CPWD and The Building and other Construction Workers (Regulation of Employment and conditions of service) Act, 1996 both require that the employer provide temporary living accommodation to all building workers employed by him for the period the construction work is in progress. This has to be provided free of cost and within the work site or close to it. Accommodation has to be of given specifications that include waterproofed roofs, necessary doors, adequate ventilation and suitable, separate cooking place with a minimum area of 6'x5' adjacent to the hut. Other amenities and services that are required to be provided are sufficient and separate toilet facilities for men and women, bathing and washing facilities, adequate water supply both for drinking and washing purposes, arrangements for drainage, waste disposal, adequate lighting and childcare facilities in terms of a crèche.

Sanitation in the labor camps, as per the rules of the local public health and medical authorities is also the responsibility of the contractor.



The labor *bustee* adjoining the site studied, comprised of rows of makeshift *jhuggis* (huts) arranged back to back. The living accommodation comprised of a 3x3-m room with a door in front and included the cooking space. There were no windows or ventilators so the space was very poorly lit and ventilated. The huts were made of bricks and corrugated metal sheets for roofing and unpaved floors. People had made attempts to personalize the space by painting motifs and patterns of the walls, floor etc. Some had even made an outdoor cooking place. The direct employees of the company were given a slightly larger *jhuggis*.

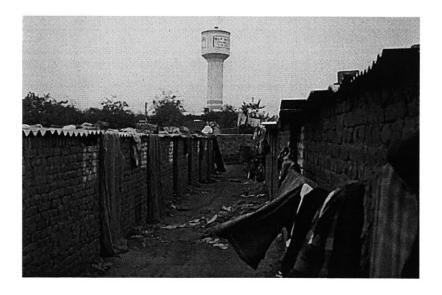
Living Conditions 44

There were toilet and washing facilities within the bustee but there were not kept clean at all times and were also found to be inadequate. As a result people were often seen going towards the open fields, adjoining the plot to relieve themselves. The contractor on his side had appointed a person who was incharge of the general upkeep of the site and the bustee. There was a person who was responsible for cleaning the toilets and garbage disposal.

There was no electricity in the *bustee* thought a few people had pulled illegal connections from a nearby electricity pole. A few people had set up small commercial establishments like a tea stall, a barber's shop etc.

As mentioned before, the social organization of the *bustee* was based on regional groups belonging to the same state. A different regional group occupied each lane of the *bustee*. Sanitation was always an issue of dispute between the *Bilaspuri* women and the other groups with the former complaining about the latter not keeping the *bustee* clean. There were reports of fights at times between the various groups but these were under control due to the proximity of a police station near the *bustee*.

As mentioned earlier, there was no crèche, educational or recreational facilities for the children of construction workers. The contractor did not see it as his responsibility to provide any welfare facility for the children of the workers.



THE POLITICS OF WOMEN'S WORK IN THE CONSTRUCTION INDUSTRY IN INDIA

Lessons for the construction industry and implication for public policy

From my observations and findings I have summarized principal issues or themes that in my view, effect women construction workers and also have resulting implications for the construction industry in India. The themes are looked at as, "dilemmas" or "tensions" faced by the different interest groups both inside and outside the industry. The idea of the research was to understand these "dilemmas" or "tensions", debate the arguments put forth by the various role players and interest groups in the industry and to develop from this debate, research questions or a work program for further research.

The following is a matrix of issues or themes that have emerged from my research and as a first step in the development of the dialogue, some possible actions or remedies are suggested. For some of the issues, I have not found answers, and these are pieces that I lay out for further research.

AWARENESS

1. The lack of consciousness among women workers about the importance of their work. The women in the industry, with whom I had a chance to interact often hold a persistent belief that men are better workers than women and that their work is more crucial and therefore they need to be paid more. The clear division of labor in the industry where the women are given the unskilled jobs while the men have the option of moving up the skill hierarchy further reinforces this stereotype amongst women workers.

The most important thing is to bring an attitudinal change beginning with the women workers themselves. Activist organizations like the Mobile Crèche and others who work with construction workers and have an established rapport with the workers should work towards creating awareness amongst women workers in developing a sense of pride for their work. Women need to understand and recognize the importance of their work and not see it as secondary. Of course, we cannot only blame it on the women worker's self-esteem. The value of work in a market economy also depends on the wages that a job commands.

Mentoring or women role models could also help in this. Trained women masons or women engineers in a senior position can provide inspiration and act as suitable role models for other women. If there are very few women in such positions then women architects can also take up this role – starting by just talking to women workers and encouraging them to take pride in the projects they have helped build, just like architects take pride in the buildings they have designed.

Unions can also play a role in developing a sense of pride amongst its women members by encouraging their potential, highlighting their capabilities and bringing out studies which attempt to measure the intensity of work done by women in construction sites.

Unions need to work with activist groups and the different role players in the industry to pursue empowerment of workers, especially women workers through interventions aimed at improving organization, capacity building while simultaneously providing information and training

2. Lack of awareness amongst male co-workers and employers about the contribution of women workers in the construction process. Employers and male co-workers are unaware about the fact that there is considerable skill required to do seemingly unskilled tasks.

Co-workers and employers, who are almost always male need to be sensitized about the work women do on site. There should be a realization amongst them that women's work is crucial to the production process aside from being auxiliary. The script that much of the industry has internalized is that a woman is not capable of doing the same quality of work or the same kind of work as a male worker. Activist groups or unions could take up this task.

Non-recognition of women's work at the work site is often an extension of the husband's role of being the "superior" or the "dominant" figure at home, where he does not acknowledge the woman's work. On the work site too the man is the skilled worker and the woman is the subordinate worker. One needs to break from the existing social construct of devaluing women's work both at home and at work. Both activist groups and unions can play a role in educating workers about the multiple roles of women and men both at home and at the work site.

Print and media ads by the government can also educate the employers and people about breaking from existing taboos and social

beliefs of "appropriate" gender roles of men and women that society has internalized for so many years due to culture and tradition.

Often, employers are not even aware that skilled women's groups exist in the industry. The general assumption is that professional or skilled women do not like to work in the industry. NGO's or women's groups should get more involved in information campaigns and disseminate success stories of skilled women workers in key positions.

3. Lack of awareness amongst women workers, employers and male co-workers that women can be trained and their skills upgraded. Skilled male workers often have firm opinions that women cannot acquire skills. An attitudinal change needs to be brought in amongst the various groups, that women workers have the capacity of acquiring skills and should get recognition as skilled workers.

There is also the perception that women workers are illiterate and therefore cannot be trained unless they have some basic education. Most training institutes insist that workers be literate in order be trained not recognizing the hands-on work experience that women have from working on construction sites. In the course of my research, I found women workers to be extremely aware of the different tasks performed on site even though they had little or no formal schooling.

According to a NICMAR study, women workers believe that they would continue to get unskilled jobs and lower pay despite whatever training they may undergo. Often with training too, women are not given better jobs. Unions should negotiate with employers to ensure to ensure better opportunities, jobs and wages for women who have been trained. The government too could develop a scheme whereby contractors and firms are given incentives as well as administrative directives, if necessary, to give opportunities to trained and skilled women.

4. Lack of awareness about grass-root level training centers.

India does not have very many grass-roots level training centers for construction workers which take into account the training needs of the illiterate or the semi-literate aspiring construction workers, except for the initiatives of the Building center Movement launched in 1988 through the National Network of Building Centers (Nimrithi Kendras/ Nirman Kendras). Besides this there have been some good initiatives for imparting training to

¹ Vaid, K.N. (1999), Women in Construction, NICMAR Publication Bureau, Mumbai. construction workers done by the construction workers union in the state of Tamil Nadu but few employers or workers know of the same.

Building centers and similar grass-root level training agencies should network with employers to promote training of women workers. Agencies could also appoint women organizers who could network with local communities in the catchment areas and educate families to encourage women to undergo training.

Building centers should also offer training in technology (like operating machinery and equipment, electrical, plumbing etc.) for women rather than limiting it to skill training in the traditional building trades (like masonry, carpentry etc.).

5. Lack of awareness amongst women workers about their rights and welfare policies. There is a lack of awareness both on the part of the intended beneficiaries and at times even employers about existing legislation that is applicable to construction workers.

Advocacy groups like the National Campaign Committee for Central Legislation on Construction Labor (NCC-CL), FORCES etc that are campaigning for legislation and welfare benefits for construction workers should spread more awareness about their campaign as well as educate workers and employers about their existing legislation and the new benefits they are campaigning for. Groups like this should liaison with firms, contractors and builders associations not only to inform them about the campaign but also get their critical feedback on the problems they face in implementing existing laws, the shortcomings in the existing laws and what can be done to improve. Activists groups that work with construction workers can also take up this task of informing and educating workers about their rights.

Activist groups may also work with the *jamadars*, the middleman, who is an important link in providing employment for the workers, to negotiate with employers for better welfare benefits for his work force. Employers also, in turn need to be made aware about the importance of providing the welfare benefits and the benefits they would have in terms of increased productivity.

6. Lack of an understanding on the part of the government that there are systems and structures within the construction industry that are peculiar to the industry. So one cannot have

laws developed for other industries to extend to the construction without a proper understanding of the working and service conditions in the industry.

Advocacy organizations should take up a task of creating an awareness amongst the government that the existing labor laws like the Minimum Wages Act, 1948, Equal Remuneration Act, 1976, Workers Compensation Act, 1923 etc have had little benefit for the construction workers. Little or no benefits have accrued to construction workers because of ineffective enforcement of these laws.

The government has to realize that there are practical difficulties in enforcing these regulations. It has been pointed out through various studies that existing labor legislation has very little potential of getting implemented in the construction industry due to the peculiar features of the industry like –

- Invisibility of the principal employer due to the contracting system.
- Temporary and transient nature of most employment in the industry
- Informal process of recruitment
- Absence of strong trade unions

There has to be an acceptance amongst the government that the existing regulations are not applicable in case of the construction worker as they have been framed keeping in mind the situation and needs of the organized sector. The changing employer-employee relation, inadequacy of labor law administration and lack of provisions to involve workers in the implementation of the laws make the existing laws ineffective.

Systems and structures of recruitment, role of the middleman, work organization etc. are issues that warrant a more detailed understanding and study as they are potentially quite distinct from other industries.

7. Lack of awareness about the Union movement and women's participation in the union. Construction workers are often not unionized, much less women workers. There is practically no tradition of craft-based associations among the workers, and the awareness of what can be achieved through concerted collective action is either non-existent or not keenly felt enough to be reflected in a strong union movement especially in the Northern States in India.

² PRIA, (1986), Beyond Bricks and Stones: The voice of construction workers; Model Press, New Delhi

There has to be an awareness generated amongst the women workers that they can potentially exhibit a reasonable degree of collective bargaining because of their large numbers and because of the continuous demand for labor in the industry. Examples of women forming a substantial proportion of the union membership in a state like Tamil Nadu where the union is strong should be used to create awareness in other parts of the country as well.

Equal attention to gender specific issues that effect the position of women in the construction industry and a pro-active action to increase the participation of women in the union should figure in the dialogues within the union. This will also serve as an incentive for more women to join the movement.

There is a need for greater gender sensitivity within the union. It is imperative to integrate and incorporate women's issues within the political themes that the union is addressing. There by, creating conditions that increase and encourage women participation but greater partnering of women and men in the union movement.

RESISTANCE

1. Resistance by employers in hiring women, paying equal salaries and allowing opportunities for training or skill upgradaing for women workers. The inequalities that come with being a woman are evident in every aspect of the work process and work organization of the construction industry. Women are given differential treatment in terms of employment, wages and status on the basis of their gender. Much of this stems from preconceived notions that women are inferior workers. The script that much of the industry has internalized is that women are not capable of doing the same kind or quality of work as the men. Employers often argue that women are paid less because their labor is worth less.

The above mentioned biases can be broken by publicizing the findings of reputable empirical studies (like the one done by Girija et. Al, 1989) which measure the work done by women in a construction site.

Awareness programs may be organized to sensitize employers, project managers and male co-workers about the work done by women workers and dispelling their biases about women not being as productive as male workers.

Employers should be discouraged from following the current norm

of not hiring a woman unless accompanied by a male family member as guarantor. Giving employers tax benefits, subsidies etc. on hiring more women and at all levels would also be a step in the direction of encouraging greater participation of women workers.

Employers or male co-workers often do not see the need for training women workers because of the type of jobs that women currently hold on a construction site. Skill upgrading for women is not encouraged as skilled women are seen as competitors for traditionally male jobs in the industry. One needs to work with male co-workers so that they see women workers as colleagues rather than as a threat.

Employers that organize on-site training programs for women workers should be awarded and encouraged. Mistris or skilled craftsmen should be encouraged to take women under their tutelage as well.

2. Resistance by employers in providing welfare measures.

Existing laws are seen to act as two-edged swords. While most protectionist interventions have been formed to minimize exploitation of women they in turn act as disincentives for employers to hire women. Employers often view women's employment as an additional outlay in terms of costs for facilities like crèche for children, separate toilets, etc; without a direct output in terms of increased productivity. An attempt needs to be made to study the economic implications of implementing welfare benefits over the total costs of constructions. The general impression is that costs would go up if welfare measures and benefits were provided and regulations strictly enforced. What needs to be studied is how much would the increase be and this needs to be balanced with what is gained in the process.

Often sanctions or penalties against employers not providing welfare benefits are not severe and inherently lack in deterrent effect. Employers often get away with non-compliance. The concerned authorities need to reassess the existing enforcement machinery and modify it suitably to ensure greater compliance.

Also, contractors may not always be equipped to provide welfare facilities. Employers are often not aware of the possibility of "tie-ups" with other organizations or agencies that might provide welfare facilities in their behalf. The proposal of the NCC-CL to subcontract out provision of welfare facilities to competent agencies is a good step.

Legislation should not single out women as the sole beneficiaries of welfare measures like maternity leave, childcare facilities etc. As mentioned earlier this makes employers weary of hiring women. These benefits are as much for the male workers and their families as they are for women workers.

There also needs to be a reassessment and re-framing of the basis of some existing welfare laws. The number of women employed on a site should not be the basis of providing a welfare facility. To illustrate my point – At present the law requires the provision of a crèche facility at a site employing over 30 women. Instead of basing this on the number of women employed this could be based on the number of children. The law could thus, be reframed to say that a day care facility needs to be provided if there are more than say 6 children on site.

Architects or consultants who draw up contracts should make provisions for welfare measures in the contract measurable by allocating a sum specifically set for it. In the press notice inviting tenders, one can pre-qualify builders or contractors to have specialized welfare staff or funds allocated for hiring one. The Bill of Preliminaries that quantifies various services by a contractor should definitely include welfare provisions.

The new federal legislation called The Building and other construction Workers Welfare Cess Act of 1996 where by all employers would need to be registered and would be required to pay 2 % of the estimated cost of the project to the Tripartite construction Boards for welfare provisions of the workers is a landmark legislation in this direction. The funds would be used to provide social security, medical and other benefits to the workers.

3. Resistance by States as well as contractors/employers in accepting and enforcing the new legislation.

In the recent years there have been two new legislations for construction workers. These are –

- i. the Building and other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996
- The Building and other Construction Workers Welfare Cess Act, 1996.

The Federal government in 1998 notified both these Bills but the various states and Union Territories have still to implement these

Acts. These Acts till now have been implemented only in two states, Kerala and Tamil Nadu, because of the existence of earlier State Welfare Acts.

The NCC-CL and the Union representatives need to pressure the State governments for the implementation of the two acts in all states and union territories.

The NCC-CL should distribute copies of the new Acts amongst the different employer groups, contractors and builder's associations to inform them about the new legislation and get their feedback on the shortcomings or limitations from their side in implementing the new laws.

Employers on the other hand are not ready to accept the second of the two Acts, as they have certain expenses which they cannot show as the project costs and, thus, the 2% welfare cess that they are required to pay cannot be correctly assessed. These expenses could be in the form of commissions or bribes paid to different groups to secure a contract. This, thus, is a practical difficulty in enforcing this Act.

COMPETING INTERESTS

This theme basically deals with competing interests that arise between the different interest groups.

1. As mentioned earlier, the Union Movement is weak and fragmented among construction workers. Unions are not very strong and are still trying to build themselves. In such a scenario, where the bargaining power of the union is still not fully developed, bargaining welfare for women and children competes with the other issues that the union is demanding. It is almost like the Unions' are questioning themselves if they are asking for too much.

Developing gender sensitivity within the union could potentially go a long way in integrating and incorporating women's issues with the political themes that the union is confronting.

2. Different competing interests between the male and the female members of the union. The differing perspectives have an effect not only on the functioning of the union but its strategies, its social concerns and its obligations towards its members. Often, gender specific issues that women want addressed do not figure

much in the dialogue of the union. To give an example – When TMKTS, a workers union in Tamil Nadu, was bargaining with the government for better wages, the union was able to secure greater hike in the wages for men than for the women and this caused resentment amongst the women members.

Greater partnering of women and men in the affairs and management of the union would be a step in developing the necessary conditions for the emergence of a gender sensitive ideology within the union.

Empowerment of the women workers at the grass-roots level, through increased participation in the women's wings of the union and support for women to get elected to leadership positions within the union can have an influence on decision making process, thereby addressing competing interests between the two groups.

3. Competing interests for a husband negotiating employment for the woman. As mentioned in the earlier narrative, the husband negotiates employment for the wife along with his own. While doing this, his own employment interests are primary while those of his wife are secondary. He thus, negotiates any available, often unskilled job for his wife. Never does he negotiate benefits like childcare or education facilities, health care etc. for the family as a whole, as it could affect his own employment. While negotiating a job, asking for benefits for the family is difficult, as there is likely to be resistance from the employer and may even result in denial of the job itself.

These issues are not new. They have been repeatedly identified in the literature on women and work, both domestically and internationally. What is new, however, is the increased presence and visibility of women workers in this still very much labor intensive industry in India. Women workers in construction now make anywhere between 20%-40% of the building industry workforce so recruitment, hiring, wages, training, social protections and opportunities for mobility (or even predictable work) in the industry are a matter of concern. The good news is that over 6% of all employed women are now in construction, including married women with children. The good news tends to obscure a

number of equally important facts: the vast majority of women in the industry are tracked into low status, low-pay, dead end jobs and cannot even negotiate their own contracts without the mediation of a male next-of-kin. There is a sign-off gap in pay according to gender that is only partially explained by women's concentration in the least skilled jobs. While concentration at the lower end may be greater, the cultural devaluation of the work performed by women also contributes to their low pay and poor working conditions.

What we learn from direct observations in the field is that:

- there is a lack of awareness, both amongst the workers and employers
- -there is resistance to change due to preconceived notions about women's roles and that
- there are competing interests between the different role players Each of these themes needs to be tackled at three different levels namely, bringing about a change in the value system, the learning system and change at the policy level.

In this thesis I have argued that governmental action is needed (in the form of laws and social protections) but that education, training, advocacy and politicization of the conditions under which women work are also key. "Letting" women into the industry is not enough.

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