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Annette Barnabas

D. Joseph Anbarasu

Paul S. Clifford

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## **A Study on the Empowerment of Women Construction Workers as Masons in Tamil Nadu, India**

By Annette Barnabas<sup>1</sup>, Joseph Anbarasu D<sup>2</sup> and Clifford Paul S<sup>3</sup>.

### **Abstract**

The construction sector has the largest number of unorganised labourers in India next only to agricultural sector. Women form half the workforce and by choice or by design they are not allowed to acquire specific skills that may enable them to become masons. Women join as unskilled workers and remain unskilled till the end of their working life span. However, men get training and systematically upgrade their construction skills to graduate as masons, supervisors and contractors. A study was conducted on the career progress of 440 men construction workers and 440 women construction workers and 51 building contractors to find out the reasons why women in the construction sector were not able to acquire skills for masonry work and how they could be trained to become masons. The findings of the study show that there is an inherent gender bias against women and also the shared general belief that women construction workers are unfit to be trained informally like men in the construction sector even though they have the necessary skills, capability and desire to become masons. Though the contractors are willing to accept women as masons by giving them training and placement in the construction sector, it has been found, the social forces that have perpetuated the concept of women as inferior workers are inimical to any such move. This study also analyses the methodology of training offered to men in the construction sector in India and proposes a new methodology of training that would qualify women construction workers to become masons and empower them economically.

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<sup>1</sup> Research scholar and Assistant Professor in the Department of Management Studies, MAM College of Engineering, Tiruchirapalli. This article is based on her doctoral study on Empowerment of Women Construction Workers. She has presented papers in both national and international conferences and attended many seminars in India. Official Address: Department of Management Studies, MAM College of Engineering, Siruganur, Tiruchirapalli 621 105. South India. Permanent address: 22, Second Cross Street, Kalyana Sundaram Nagar, Karumandapam, Tiruchirapalli 620 001. South India. Personal cell phone: +91 9345101647

Personal landline: +91 431 2480965 Official telephone: +91 431 2650550 Fax: +91 431 2650377 Email: [anncliff123@rediffmail.com](mailto:anncliff123@rediffmail.com)

<sup>2</sup> M.Com, M.Phil., M.Ed. Ph.D. CFA level 1, B.D is Dean of Arts & Reader in commerce, Bishop Heber College (Autonomous), Trichy – 620 017. He is now guiding about eight research scholars in their doctoral study. He is visiting faculty for Finance, Banking and Insurance in Appalachian State University, Boone. He has published seven books and 10 papers and has attended national and international conferences. Official address: Dean of Arts & Reader in commerce, Bishop Heber College (Autonomous), Tiruchirapalli – 620 017. South India. Personal cell phone: +91 9443144805 Personal landline: +91 431 2771651 Official telephone: +91 431 2770136 Email: [joetrichy@yahoo.com](mailto:joetrichy@yahoo.com)

<sup>3</sup> Research scholar and Assistant Professor/Head in the Department of Management Studies, MAM College of Engineering, Tiruchirapalli. He has a Bachelor's degree in Philosophy and Masters Degree in Management Studies (Specialization in Finance). He has presented papers in both national and international conferences and attended many seminars in India. Official Address: Department of Management Studies, MAM College of Engineering, Siruganur, Tiruchirapalli 621 105. South India. Permanent address: Third floor C, Balaji Apartment, SBIO Colony, Tiruchirapalli 620 001. South India. Personal cell phone: +91 9843134069 Official telephone: +91 431 2650550 Fax: +91 431 2650377 Email: [gcliff.clifford@gmail.com](mailto:gcliff.clifford@gmail.com)

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## **Introduction**

Construction sector is the world's largest industrial employer with seven per cent of total world employment and 28 per cent of industrial employment (*Improving Working and Living Conditions in Construction*, 2004, p.3). Construction activity is an integral part of a country's infrastructure and industrial development. In India, the construction sector is the largest employer of unorganised labour next to agricultural sector (Laskar & Murty, 2004). The contribution of construction sector in India to the GDP (Gross Domestic Product) at factor cost in 2006–07 was Rupees 1,965,550 million, registering an increase of 10.7% from the previous year and the share of construction in GDP has increased from 6.1% in 2002–03 to 6.9% in 2006–07 (Government of India, 2008b, p.239). Around 16 per cent of the India's working population depends on building construction for its livelihood and the Indian construction industry today employs about 31 million people and creates assets worth over Rupees 200,000 million (India infra guru, 2008; Government of India, 2008a, p.189) annually.

However, the construction industry in India is facing a huge shortage of manpower, especially those with skill-sets to sustain the rapid growth in infrastructure and housing sectors. The strength of skilled workforce in construction has dwindled substantially from 15.34% in 1995 to 10.57% in 2005, whereas relative proportions of unskilled workers have gone up from 73.08% in 1995 to 82.45% in 2005 (Government of India, 2008b, p.240) and it is a clear indicator that there is a great demand for skilled workers in the construction sector. To make up this shortage, it becomes imperative to convert semi-skilled or unskilled women workers into skilled workers.

It is a recorded fact that outside the agricultural sector, a significant and gradually increasing proportion of women workers are engaged in the construction sector (Shah, 2002). It is estimated that more than half of the 31 million construction workers in India are women (Government of India, 2008a, p.189). Women are employed in semi-skilled and sometimes in skilled jobs in other industries but in the construction industry women are employed mostly as unskilled laborers (Jhabvala & Kanbur, 2002, p.7; Baruah, 2008, p.1).

## **Gender Bias in Construction Sector in India**

India is a fascinating and diverse country with many languages, cultures, castes and religions. Like many other societies, here too, the sons are considered to be superior to daughters, and women are forced to be submissive to men at home and at the work spot (Kingdon, 2001; Bhagwat & Hemant, 2009). The male power structure holds the mostly semi-literate and illiterate women employed in the construction sector slightly better than bonded laborers and discriminates them in work allocation and wage distribution (Suchitra & Rajasekar, 2006). Majority of men and women in the construction sector have the lopsided view that women lack skills to carry out certain tasks in the construction sector. This mindset has led to the discrimination of women in the sector and is preventing women from being trained and employed as masons in construction sector (Shah, 1996 and Lingam, 1998).

In India, though many poverty alleviation schemes are in force, still about 350-400 million people live in absolute poverty with an income of 275 dollars per annum and

a majority of them are women (Government of India, 2006, p.206; Nandal, 2005, p.182). Women in these poor families are forced to work as there is an “inverse correlation between household economic status on the one hand and women's labor force participation and their proportional contribution to total family income on the other” (Bennet, 1992, p.3). Wage disparity is very glaring and men earn 32 per cent more than women in India (Kingdon, 1997, p.23), and in the economic sphere, given the rate of unemployment, women have even less opportunities to earn like men. Poverty is widespread among the urban and rural women and the worst affected are single and derelict women with children to support. The rural women who live below poverty line find the agricultural sector with excess of labor and thus low wages. Besides, the seasonal demand for labor in the agricultural sector deprives them of regular income. As a result, they are forced to work in construction sector to meet the dire needs in the family. Many women either commute to distant urban centers or migrate temporarily to work in construction sites. It must be noted here that women belonging to the poor and depressed castes like Schedule Caste or Backward Caste<sup>4</sup> are pushed into construction jobs for making their livelihood (Madhok, 2005). These construction workers are one of the most numerous and vulnerable segments of the unorganised sector in India (Government of India, 2008a, p.189).

### **Discrimination in Promotion for Women Construction Workers**

More than half of the 31 million construction workers in India are women and their potential is not used to the maximum (Government of India, 2008a, p.189). They clean the building sites, and they serve the skilled men workers by carrying materials as head load and doing tasks directed by them. The differentiation in work allotted to men and women on building sites occurs on the grounds of what is considered appropriate for men and women, and not on the basis of the skill and the capacity of the women to do the work.

Construction is one of the few industries where people can work their way to the top from the bottom level (Fisher, 2007). But women in India are denied promotional opportunities in the construction sector. In the absence of mechanization of work, many backbreaking and energy sapping jobs are assigned to women workers who are treated no better than draught animals, so to say. It is no exaggeration that the job of a woman worker is more strenuous in the construction sector than in other manufacturing industries. In recent times, heavy machinery is replacing women workers in large construction sites (Vankar, P. 2005, p.19), yet the continued availability of cheap labor forces builders and contractors to seek women laborers. Their work is naturally regarded as unskilled, and they are given no opportunity to acquire skills. Men, on the other hand, learn and up-grade construction skills while working. Men start as unskilled workers and move up to work as masons and then become supervisors and some even become

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<sup>4</sup> The poor and low caste people are called as Scheduled Caste (SC) people in India. They are treated as untouchables in rural areas even though untouchability is a crime in India. Low caste people cannot enter into temples or the area where the high caste people live. They are not treated on par with others and are isolated from other high caste people. There are also other people who belong to Most Backward Caste (MBC) and Backward Caste (BC) in India. Their status in society is higher than the Scheduled Caste people but they are also not well accepted by the high caste people. Most of the people belonging to the Scheduled Caste, Most Backward and Backward Caste live below poverty line and so they take up the construction sector for making up their livelihood.

contractors (employers). The male dominated construction sector does not encourage women to become masons (Baruah, 2008, p.19). The study *Women Constructing Their Lives: Women Construction Workers - Four Evaluative Case Studies* (Habitat, 1997) gives four case studies, one each from India, Mexico, Ghana and Jamaica. In these four cases, the sharpest differentiation of tasks on gender lines occurs in India. Women workers in India are not at all considered to do skilled work like bricklaying and basic masonry. Even when they master such skills, they do not find work because they are simply not considered. All the women construction workers in Tamil Nadu have the same job title *chithal*<sup>5</sup> whereas men have many job titles and promotional opportunities (Kaveri, 1995).

### **Empowerment of Women Construction Workers**

Empowerment aims at creating both equality and equity between individuals or social groups. In women's empowerment, the gender and social relations are transformed in favour of women to create greater equality and equity between men and women within social groups and between different social groups. In the empowerment process, the powerless people begin to have control over their lives. Empowerment results in a change in the balance of power, in the living conditions, and in the relationships. Financial independence is very important for women construction workers as many of them are found to be single or abandoned women (Table 13). Within families too, the husbands are found to have other sexual partners and the income is split. Some are drunkards and find themselves in debts. The earnings of the women are often forcibly taken away by their husbands and total dependence on such irresponsible men too wreaks havoc on their personal lives. Economic empowerment alone can save them from the thrall of poverty and disease. Many direct and indirect benefits can accrue from economic independence; the chief among them are nutritious diet, access to health care, education for children, proper dwelling, and even social security.

### **Research Methodology**

#### *Objectives of study*

The objectives of the study are to find out the reasons why women construction workers should be empowered to become masons, to determine the process by which men are being trained in construction sector, to determine the willingness of women construction workers to become masons and the willingness of men construction workers and contractors to train and employ women as masons.. There are many studies on construction sector which recommend that women could be empowered by training to do the tasks of masons in India (Habitat, 1997; ILO, 2001; Baruah, 2008). But there is hardly any study in India which identifies the barriers which prevent women construction workers from undertaking masonry work and the process by which these women could be empowered in the construction sector. This study is again an attempt to determine the

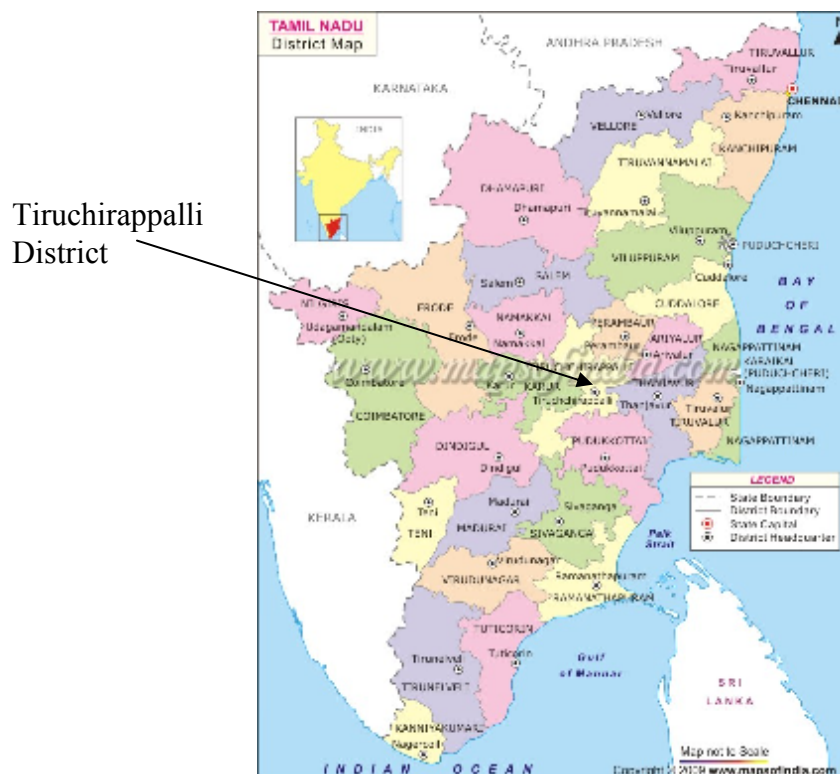
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<sup>5</sup> Women have only one job title *chithal*, which means one who is small in the local language. Women enter as *chithal* and retire as *chithal* and they also receive the wages of *chithal*, which remains the same. Men have many job titles like centering laborers, *periyal* (one who is big), *manvettial* (one who digs), masons, supervisors and contractors. Thus men can be promoted to masons, supervisors and finally contractors, whereas women have no scope for promotion.

barriers which prevent women construction workers from being promoted as masons and find out a methodology for training women construction workers in Tamil Nadu (India).

### *Area of study*

This is a descriptive study conducted in the Indian state of Tamilnadu. Tamil Nadu is located in the southernmost tip of the Indian Peninsula bordered by Kerala to the west, Karnataka to the northwest, Andhra Pradesh to the north and Bay of Bengal to the east (Pan India Networks, 2009a). The total area covered by the state is 130,058 sq. kms. According to the Indian Census (2001), Tamilnadu has a total population of 62,405,679. Tiruchirappalli District is located along banks of the River Kaveri in Tamil Nadu state of India (Pan India Networks, 2009b). Trichy is a municipal corporation and the administrative headquarters of Tiruchirappalli District. Tiruchirappalli, has a population of 2,418,366 (Census of India, 2001). Males constitute 49.97 per cent of the population and females 50.03 per cent. The total number of workers are 1,064,521, they constitute 687,814 male workers (64.6 per cent) and 376,707 female workers (35.4 per cent).



### **Data Collection Method and Tools**

In this study, stratified sampling was used. A sample of 440 women construction workers in Tiruchirappalli district was interviewed to find out their views on women in masonry and their skills to be trained as women masons. A sample of 440 men construction workers in Tiruchirappalli district was interviewed to find out the way in which they are trained for masonry work. A sample of 51 Contractors/ Engineers in Tiruchirappalli district was asked to fill questionnaire to find out their views on women in

masonry work in construction sector. The construction workers were selected from *Santhai* (place where they are recruited for work), workplaces and wage disbursement centers.

The Primary data collected, is through interview schedule. As majority of the construction workers are illiterate, two schedules were prepared, one for women construction workers and another for men construction workers, and the construction workers were interviewed in the local language (Tamil) and the responses were noted in the schedule.

## **Findings and Discussion**

### *Reasons for Empowering Women Construction Workers*

As a first step to find out a methodology to empower women, the factors that favour women construction workers becoming masons were studied. All the women interviewed in this study were working only as *chithal*.

### *Disparity in Wages for Women Construction Workers*

This study reveals that there is a vast disparity in wages between women and men construction workers. The contractors and the men construction workers say that most of the women construction workers are paid less than Rs. 100 and no women gets wage more than Rs. 160. The actual wages of women studied range from Rs. 51 to Rs. 160 whereas the wages that men receive range from Rs 71 to more than Rs. 250. Many women get wages below the minimum wage set by the government, which is Rs. 120 per day (The Gazette of India, 2008).

### *Disparity in Promotions for Women Construction Workers*

The women and men construction workers and the contractors were asked to specify the barriers which prevent women from being promoted to work as masons and their responses are shown in Table 1.

The men construction workers and the contractors are of the opinion that the important barrier for women to become masons in construction sector is that the job involves working for long exhaustive hours and women are not fit physically; there is also no training in other areas like laying foundation, erection of structural frame, and plastering. The common belief is women are scared of heights. There is absolute complicity of both male and female workers in the maintenance of this 'lie'. The prejudices like women are scared of heights and physically not fit have to be challenged and changed. At present, women climb up the scaffolding carrying loads of bricks and sand on the head, work in multi-floor buildings with ease as *chithals*, and they perform all the tasks done by men like digging, breaking stones and some of the tasks of the masons. So women have the same potential and the courage like men to do masonry work.

The study has shown that more women agree that there are no women masons because they consider it a difficult task, men will not accept it, they are not trained, scared of heights and they are not given opportunities. Recognition of the women laborers' ability means parity in wages. So, it is a collective denial of their ability to perform the masonry tasks. Women laborers agree with the view that cultural habits die hard, but those cannot be cited as the reason for denying women their place in the work

spot. The men are also well entrenched in their expectation of passivity, obedience, and respect from women laborers. Conceding women the roles of masons or supervisors will challenge the hierarchy and even the notion of men's work. This is consistent with the findings of Hodgkinson (2006) about the barriers to women entering construction trade in New Zealand. According to Hodgkinson's study, 46% of employers (contractors) say women lack physical strength, majority of women workers say that it is a male dominated industry and men workers say women are not fit physically for the industry.

Nearly half (40%) of men workers in the present study feel women do not become masons because there is no training for them (Table 1). Gatta (2002) reports the same about the construction trades in New Jersey where women are often excluded from informal training venues. Women are not able to break through many of the male dominated informal training and mentoring activities that occur onsite.

The men and women construction workers in this study were asked to give the reasons why women can do mason's work and the results are tabulated in Table 2. The results show that nearly half of women and more than half of men and contractors say that if women take up masonry work they will receive more remuneration. The interesting discovery in this study is that many women and men say that women can do masonry work since women perform well in other professions.

#### *Women spend their Income mostly on Family*

The women and men construction workers were asked to identify the ways in which they spend their income and the findings are given in Table 3. The results show that men are spendthrift while majority of women spend most of their meager income on meeting the basic needs of the family.

The study shows that ninety eight per cent of women do not drink whereas two thirds of men construction workers waste their income on drinking and smoking which will affect their health and family. Women, when compared to men do not drink or smoke or waste resources. Majority of women manage without cell phones. More than four out of five women use their wages only to meet their basic needs and more than half of the men construction workers go for a loan from money lenders to meet their needs during unemployment (heavy interest rates bleed them) whereas less number of women avail loan. When compared to men, more women are willing to go without food at the time of unemployment, which is the natural quality of women.

This is consistent with the findings of Mencher (1988) in 20 villages in Tamil Nadu and Kerala<sup>6</sup>, that women who earn tend to hold back less of their own income for themselves. On average, women contributed 98 percent of their earnings toward family maintenance whereas men contributed only 78 percent and kept the rest for personal use. Women contribute a large share of their earnings than men for their family's nutrition, health and education (Bennet, 1992, p.60). The present study shows that the family and society are benefited when women get more wages for their skills and enable them to attain their full potential for the improvement of the family which is the basic unit in any society.

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<sup>6</sup> Kerala is a neighbouring state of Tamilnadu in India.



### *Sincerity in the Work of Women Construction Workers*

The contractors were asked about the sincerity of women construction workers in construction sector and the findings are shown in Table 4. The study shows that 80.4 per cent of women obey the instruction of contractors and 72.5 per cent of women are always sincere in their work. Sincerity means reporting to work in time and working during the assigned hours without shirking and completing the tasks as told by the superiors. The disobedience rate for women is negligible which shows that women will also excel as masons or supervisors or contractors because of their sincerity and obedience. This is consistent with the findings of Hodgkinson (2006) in New Zealand, who has reported that the employers of women working in construction trade have said that women raise onsite behavioral standards.

### *Daily work description of Women Construction Workers*

The daily work description of women construction workers was studied and is given in Table 5. The study shows that women workers are already performing most of the work of masons in the work sites now.

This study reveals that majority of women accept that women's work is just carrying head load, sifting sand, breaking stones and mixing the mortar. Very few women say that women's work is digging, laying bricks, plastering, concreting or leveling because these skilled tasks are not assigned to women in construction sector in India but are carried out only by men masons. But some women have reported that they are doing the tasks of masons like laying bricks, leveling, concreting and plastering. Some women (12.3%) have reported that they have done masonry work even when they are not paid for the work or given the job title of mason. These women do masonry tasks even though they are not paid on par with men or allowed to become masons. Productivity level of women who do the masonry task is also found to be high. Steps should be taken to educate women that they are competent to do the work of masons because some women are already doing the mason's job.

### *Capability of Women to Carry out Masonry Work*

In this study an attempt was made to find out the various types of masonry work tried by women in construction sector, to find out the capacity of women to do masonry work. The masonry work tried by women is given in Table 6.

The study shows that some women have performed the tasks of a mason like concreting, leveling and plastering. So the study shows that women have the ability and capacity to do the masonry work. Hodgkinson (2006) also reports that in New Zealand, when the employers of women were asked about the quality of work done by skilled women workers, they did not find any fault and said women were very meticulous in their work.

### *Analysis of the Empowerment Process of Men Construction Workers*

To determine the means of empowering women construction workers, the empowerment process of men construction workers in construction sector was studied.

### *Methodology of Empowerment of Men to become Masons*

The methodology of training that men get in construction sector is studied with men construction workers and contractors, and the findings are given in Table 7.

The study shows that 95.2 per cent of men have been trained informally. Most of the men are not trained for masonry work by institutional training. Majority (88.2%) of contractors say that the training given to men workers in construction sector to become masons is informal. This practice is prevalent in most of the places around the world. Informal training is common in the construction sectors of many developing countries, including the Philippines, Indonesia, Egypt, Kenya, India, Mexico and Brazil (ILO, 2001). In China, 90% of the craftsmen are trained informally (Sha & Jiang, 2003). A study on construction workers in Srilanka (Jayawardane & Gunawardena, 1998) reports that 86 per cent of the skilled work force has received informal training only. Most of the men in the construction sector receive practical training only on the job. Studies in the UK have shown that in construction industry, workers who have learnt skills by on the job training qualify informally as semi-skilled or skilled (Byrne, Clark & Van der Meer, 2005). Work experience is important to gaining employment in the construction sector in UK. Gaining work experience is a problem for women, who often face more difficulties due to discriminatory practices in placements (Byrne et al, 2005).

In India, the men construction workers join construction sector as unskilled workers. After a few months, they are asked to do the semi skilled work of *periyal* or *manvettial* and paid more wages. While they work as *periyal* or *manvettial*, they start assisting the masons in certain tasks and receive spot practical training for masonry work. But this type of informal training is not extended to women construction workers in construction sector because of the worldview of people, gender discrimination and the absence of motivation in women to learn informally. So it is proposed in this study that this informal training could be offered to women by changing the mindset of men and motivating women to work as assistants to masons.

### *Time Taken for Training Men Workers to become Masons*

The time taken for men workers to become mason was studied and the results are given in Table 8. The study shows that most of the men get informal training for about a year. For some men it takes more than one year and some others it is six months. The duration varies according to the learning aptitude of the person. This shows that able men are trained in less than one year. Wachira, Root and Bowen (2008) report that in Kenya, two and one year were the most frequent training periods for skilled workers in construction suggesting that the most suitable training period is within this range. So the optimum duration of informal training that could be offered to women would be one to two years.

### *Willingness of Women Workers to be Empowered and Willingness of Men to Empower them*

In this study, the willingness of the women workers to be trained as masons was analyzed to find out whether women construction workers are willing to get the informal training like men to become masons.

### *Willingness of Women Construction Workers to become masons*

The willingness of women construction workers to become masons was studied and the findings are shown in Table 9. More than one third of women say that they are willing to do the mason's work. One out of four women says that they are willing to do the work of masons - laying bricks, leveling and plastering. Majority of women are willing to be trained for masonry work.

Table 10 shows that nearly all of the women who are willing to be trained as masons are willing for on the job training. Only about five per cent of the women workers ask for off days or institutional training. Women workers if trained institutionally must be provided with stipend.

### *Opinion of Contractors and Men Construction workers on Willingness to train women masons and accept them*

The opinion of the contractors and men construction workers on whether women could become masons was studied and the results are summarized in Table 11. Nearly half of the men construction workers are willing to train women and say that women can become masons. Nearly seven out of ten men are willing to employ women as masons. Majority of contractors (60.8%) agree that women can become masons. Some of the contractors express the opinion that women are performing well in other professions and so they can also perform the masonry job well. This is a clear indication that women can be trained informally to become masons and they should be motivated and trained to become masons. The study shows that majority of the contractors (51%) are willing to train women as masons and 62.7 per cent of contractors say that if women offer to do masonry job they will employ them as masons. So steps must be taken to offer informal training to women in construction sector with the help of men construction workers and contractors.

## **Methodology Proposed To Train Women Construction Workers**

### *Role of Trade Unions in Implementing the Informal Training to Women Construction Workers*

Trade unions have played a positive role in the past in many countries to improve diversity in construction, in particular through challenging discrimination in the workplace against women (Craw et al., 2007). So the union awareness and membership among construction workers was studied to find out how unions could support in organising informal training in the construction sector in India. Table 12 shows the involvement of women construction workers in union activities.

This study reveals that only one third of women construction workers are aware of union activities and only one out of ten of these women had become members in the union. The women who have got union benefit are negligible and only a considerable number of women join union to get the welfare support. This is due to the absence of the knowledge of the role of unions for the advancement of the welfare of the working class people.

This study has also revealed that women could be empowered by informal training. The unions in construction sector must be strengthened and motivated to take steps to offer this informal training to women. All women should be encouraged to become members of unions. These women groups must be educated and motivated to

demand informal training through the union. Unions can also conduct basic literacy and masonry skill training programmes for women and motivate men mason members of unions to offer informal training to women and give placement opportunities.

#### *Motivating Men Construction Workers to Train their Wives and Women Relatives*

Analysis was also made to find out whether informal training could be given to wives and women relatives of masons who are in construction and the findings are shown in Table 13 and 14.

The study has shown that the wives of 14.1 percent of men workers are in construction sector. In India, the wives of construction workers work along with their husbands in the same site and workers move from rural areas to work in cities as a team of relatives. Most of them are from the same family. So male construction workers can be motivated to give informal training to their wives and relatives and these women can work along with them in the project.

#### **Suggestions for Empowering Women Construction Workers**

The present study has shown that there is disparity in wages and promotion opportunities between men and women in the construction sector. The study also shows that women were found to use their income profitably - for the welfare of the family and they are capable of doing masonry work. They have the competency, capability, ability, skills and work culture to become masons. Most of the women want to become masons and they have tried and are already doing some of the tasks carried out by men masons, which shows that women have the potential to become masons. So steps can be taken to train and employ women and quasigovernmental agencies and Non Governmental Organizations can come forward to honor such women masons and the contractors who employ them and can give wide media publicity. Women Groups can take up the task of sensitizing male masons and contractors.

This study has revealed that contractors and masons do not conduct any formal training for men in masonry work, but men workers start working as assistants to masons and receive the informal practical training for about one year with wages. This type of informal training is absent for women construction workers in India. In the same manner, it is proposed that women in this sector could also be encouraged to get practical training by working as assistants to the masons. This will ensure women of their wages during the time of training.

The construction sector unions must also be motivated to work with masons, who are members of the unions to train women informally by employing women as job assistants.

In many construction sites, the relatives of masons work as a team because they move to cities as a group. So, men masons in the team can train their wives, sisters and other relatives informally. After they are trained, the trained women can work independently as masons, earn more wages and offer informal training to other women empowering many women in the construction sector.

## Conclusion

Women in the construction sector are involved only in unskilled work. Their potential as masons is still untapped. This study analyzed the reasons why women could be empowered and it has been found that women should be empowered because of their skills, good spending habits, capability, potential, and their aptitude to work sincerely. The study has also shown that women are willing to be trained and are already carrying out some of the tasks of masons. Men are willing to train women and give them opportunity to work along with them. So it is proposed that the methodology of offering informal training now practiced in construction sector to train men workers could be extended to train and empower women for masonry work.

To implement this informal training it is proposed that union membership of women has to be increased and men union workers must be motivated to come forward to train women informally. The male construction workers must also be motivated to give informal training to their wives and relatives. If some women are trained and employed as masons, they will in turn become mentors to other women and encourage and train other women to do the job of masonry. Legislation could be enacted in India to make it mandatory for the contractors to offer informal training to women construction workers in government sites and employ a certain percentage of women masons in all sites. These positive steps will enhance the resource potential among women construction workers and empower them leading to the growth of the families and the advancement of the nation.

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## Appendix

**Table 1**  
**Barriers for Women not being Promoted as Masons**

Barriers			n <sub>1</sub> Total=44 0	% of n <sub>1</sub>	n <sub>2</sub> Total=44 0	% of n <sub>2</sub>	n <sub>3</sub> Total=5 1	% of n <sub>3</sub>
1	Not given opportunity	Yes	109	24.8	112	25.5	8	15.7
		No	331	75.2	328	74.5	43	84.3
2	Man's job	Yes	84	19.1	61	13.9	13	25.5
		No	356	80.9	379	86.1	38	74.5
3	No training	Yes	122	27.7	177	40.2	12	23.5
		No	318	72.3	263	59.8	39	76.5
4	Difficult	Yes	147	33.4	118	26.8	35	68.6
		No	293	66.6	322	73.2	16	31.4
5	No motivation/ not tried	Yes	102	23.2	112	25.5	9	17.6
		No	338	76.8	328	74.5	42	82.4
6	Men will not accept	Yes	82	18.6	77	17.5	4	7.8
		No	358	81.4	363	82.5	47	92.2
7	Physically not fit	Yes	127	28.9	97	22.0	22	43.1
		No	313	71.1	343	78.0	29	56.9
8	Scared of heights	Yes	127	28.9	212	48.2	31	60.8
		No	313	71.1	228	51.8	20	39.2

n<sub>1</sub> – Number of women construction workers, n<sub>2</sub> - Number of men construction workers, n<sub>3</sub> - contractors



**Table 2**  
**Reasons for Encouraging Women to do Masonry job**

Reasons	n <sub>1</sub> Total=440	% of n <sub>1</sub>	n <sub>2</sub> Total=440	% of n <sub>2</sub>	n <sub>3</sub> Total=51	% of n <sub>3</sub>
1 Women perform well in many other professions	48	10.9	135	30.7	7	13.7
2 To earn more	208	47.3	232	52.7	27	52.9
3 To prevent exploitation	3	0.7	11	2.5	5	9.8
4 To stop female discrimination	13	3.0	5	1.1	3	5.9
5 They can't	168	38.2	57	13.0	9	17.6

n<sub>1</sub> – Number of women construction workers, n<sub>2</sub> - Number of men construction workers, n<sub>3</sub> - contractors

**Table 3**  
**Spending of Income**

		n <sub>1</sub> Total=440	% of n <sub>1</sub>	n <sub>2</sub> Total=440	% of n <sub>2</sub>
1 Drinking	Yes	9	2.0	161	36.6
	No	431	98.0	279	63.4
2 Smoking	Yes	7	1.6	149	33.9
	No	433	98.4	291	66.1
3 Cell Phone	Yes	45	10.2	140	31.8
	No	395	89.8	300	68.2
4 Basic Needs Only	Yes	368	83.6	138	31.4
	No	72	16.4	302	68.6
Course Of Action During Unemployment	Take Loan	161	36.6	224	50.9
	Husband/parent is	159	36.1	78	17.7
	Working	77	17.5	86	19.5
	Saving	10	2.3	3	.7
	Go without food – eating once a day	33	7.5	49	11.1

n<sub>1</sub> – Number of women construction workers, n<sub>2</sub> - Number of men construction workers

**Table 4**  
**Opinion of Contractors on Service of Women Construction Workers**

<b>Opinion of Contractor on Service of Women Construction Workers</b>		<b>n<sub>3</sub></b> Total=51	<b>% of n<sub>3</sub></b>
1 Women Obey	Always	41	80.4
	Sometimes	7	13.7
	Rarely	2	3.9
	Never	1	2.0
2 Women Sincere	Always	37	72.5
	Sometimes	11	21.6
	Rarely	3	5.9

n<sub>3</sub> – contractors

**Table 5**  
**Daily work description of Women Construction Workers**

<b>Daily work</b>		<b>n<sub>1</sub></b> Total=440	<b>% of n<sub>1</sub></b>
1 Women Work - Load Carrying	Yes	392	89.1
	No	48	10.9
2 Women Work - Breaking Stones	Yes	310	70.5
	No	130	29.5
3 Women Work - Mixing Mortar	Yes	229	52.0
	No	211	48.0
4 Women Work - Digging	Yes	80	18.2
	No	360	81.8
5 Women Work - Laying Bricks	Yes	32	7.3
	No	408	92.7
6 Women work - Concreting	Yes	29	6.6
	No	411	93.4
7 Women Work - Levelling	Yes	30	6.8
	No	410	93.2
8 Women Work - Plastering	Yes	28	6.4
	No	412	93.6
9 Mason Work Tried	Yes	54	12.3
	No	386	87.7

n<sub>1</sub> – Number of women construction workers

**Table 6**  
**Mason work tried by Women Construction Workers**

<b>Mason work tried</b>	$n_1$ Total=440	% of $n_1$
1 Laying Bricks And Constructing Walls	30	6.8
2 Concreting	5	1.1
3 Leveling	3	.7
4 Plastering	4	.9
5 Operating Mixer Machine	2	.5
6 Laying Tiles	1	.2
7 Concreting, Leveling, Plastering	9	2.0
8 Not Applicable	386	87.7
9 Total	440	100.0

$n_1$  – Number of women construction workers

**Table 7**  
**Training given to Men Construction Workers**

<b>Training given to Men Construction Workers</b>	$n_2$ Total=440	% of $n_2$	$n_3$ Total=51	% of $n_3$
1 On the job (informal)	419	95.2	45	88.2
2 Institutional (month)– diploma/certificate	5	1.1	1	2.0
3 Attended training 2/3 days conducted by institutions (NIT, SIT)	1	.2	0	0.0
4 NA (no training)	15	3.4	5	9.8

$n_2$  - Number of men construction workers,  $n_3$  - contractors

**Table 8**  
**Time Taken By Men Workers To Become Masons**

<b>Time Taken By Men Workers To Become Masons</b>	$n_2$ Total=440	% of $n_2$
1 1 month	9	2.0
2 2 months	1	.2
3 3 months	9	2.0
4 6 months	68	15.5
5 1 year	231	52.5
6 > 1year	89	20.2
7 Depends on person	33	7.5

$n_2$  - Number of men construction workers

**Table 9**  
**Willingness of women construction workers to become skilled masons**

No	Willingness of women construction workers		$n_1$ Total=440	% of $n_1$
1	Laying Bricks Willing	Yes	113	25.7
		Not sure	65	14.8
		No	262	59.5
2	Leveling Willing	Yes	117	26.6
		Not sure	50	11.4
		No	273	62.0
3	Plastering Willing	Yes	115	26.1
		Not sure	46	10.5
		No	279	63.4
4	Women can become Mason Skilled	Yes	164	37.3
		Not sure	105	23.9
		No	171	38.9

$n_1$  – Number of women construction workers

**Table 10**  
**Method of Training Women Construction Workers as Masons**

	$n_1$ Total=234	% of $n_1$
On the Job	223	95.3
On Off Days	9	3.9
Institutional Training	2	0.8

$n_1$  - Number of women construction workers willing to be trained as masons

**Table 11**  
**Opinion of men construction workers and contractors**

			n <sub>2</sub> Total=440	% of n <sub>2</sub>	n <sub>3</sub> Total=51	% of n <sub>3</sub>
1	Women can become Skilled Mason	Yes	222	50.5	31	60.8
		Not sure	162	36.8	9	17.6
		No	56	12.7	11	21.6
2	Willingness to Train Women	Yes	212	48.2	26	51.0
		Not sure	69	15.7	15	29.4
		No	159	36.1	10	19.6
3	Willing to employ Women Mason	Yes	303	68.9	32	62.7
		Not sure	92	20.9	15	29.4
		No	45	10.2	4	7.8

n<sub>2</sub> - Number of men construction workers, n<sub>3</sub> - contractors

**Table 12**  
**Involvement of Women Construction Workers in Union Activities**

Union Details of Women Construction Workers		n <sub>1</sub> Total=440	% of n <sub>1</sub>	
1	Union awareness	Yes	160	36.4
		No	280	63.6
2	Union member	Yes	54	12.3
		No	386	87.7
3	Union benefit claimed	Insurance	2	.5
		Accident compensation	2	.5
		Children's education	10	2.3
		Any other	9	2.0
		Not applicable	417	94.8
4	Reason for joining Union	Welfare activities	23	5.2
		Pension in old age	25	5.7
		For crisis support	6	1.4
		Not applicable	386	87.7

n<sub>1</sub> – Number of women construction workers

**Table 13****Socio-demographic characteristics of men and women construction workers**

Socio-demographic characteristics			$n_1$ Total=40	% of $n_1$	of	$n_2$ Total=40	% of $n_2$
1	Marital Status	Married	261	59.3		282	64.1
		Unmarried	94	21.4		156	35.5
		Divorced	20	4.5		1	0.2
		Widow	65	14.8		1	0.2
2	Entry Why	Widow/ abandoned by husband- no other employment	75	17.0		121	27.5
		Forced by Poverty	249	56.6		115	26.1
		Many family members in this job	44	10.0		49	11.2
		Parents died to look after younger ones	7	1.6		0	0.0
		Own choice	65	14.8		155	35.2

$n_1$  – Number of women construction workers,  $n_2$  - Number of men construction workers

**Table 14****Status of Spouse of Men Construction Workers**

Status of spouse of men construction workers	$n_2$ Total=440	% of $n_2$
Working construction	62	14.1
Wife Working Working other job	40	9.1
Not working	182	41.4
Unmarried	156	35.5

$n_2$  - Number of men construction workers