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# **BUILDING BRIDGES: A COMPARATIVE STUDY OF WOMEN WORKING IN THE CONSTRUCTION INDUSTRY IN INDIA AND THE US**

**Susan Moir\***

*In January 2017, a delegation of women construction workers and advocates from the United States will visit India to meet with labour and civic leaders and share stories and experiences with women working in India's construction industry. The goal of the delegation is to lay a foundation for an international network by and for women construction workers. This article describes the history and background of the delegation and its purpose.*

**Keywords:** women, construction, labour, implementation, globalism

## **1. INTRODUCTION**

In 1995, at the Beijing Fourth World Conference on Women, two United States-based female construction workers—commonly known as “tradeswomen” in the west-- proposed and facilitated a workshop for women working in the construction sector. The workshop was in a very small room and the organizers expected a handful of women to show up. Over 60 women from India, Pakistan, Thailand, Papua New Guinea, Japan, the United States, Denmark and England came to the workshop and participated in the first-ever international discussion of work and working conditions by women in construction. The event was documented in the 2006 film *Transnational Tradeswomen* (Price, 2006). Many things were talked about that day. Nearly twenty years later those who participated remember one revelation as the most remarkable. Women from developed economies described systematic exclusion from good paying careers in a male-dominated industry. Women from developing economies described being relegated to the most menial, backbreaking and dangerous work within the same industry. One participant summarized the feelings in the workshop as, “In the North they say we are not strong enough; in the South they say we are not smart enough.” Questions arising from this contradiction include:

- If skilled work in the construction field is a route out of poverty for women in more privileged societies, are global industry patterns reinforcing women's poverty in developing societies? (Moir, 2014)

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- How do global gender patterns in the construction industry impact wider social issues? (Samantray and Dhanya, 2012)
- What are the effective strategies and policies for improving the lives of women working in construction under varied economic conditions?

*Building Bridges* is a multi-year participatory research project seeking to better understand the similarities and the contradictions between conditions for women working in the construction industry in India and the United States. The proposed outcomes include building relationships between tradeswomen organisations across borders and advocates in both countries that will set the stage for an international network by and for women working in the global construction industry. As the construction industry becomes more global, women who work in the industry will need their own global platform to have their voices heard. Although working conditions for women vary widely, exploitation of women and ineffective government intervention are constraints in the global construction sector.

## **2. UNFINISHED BUSINESS: TRADESWOMEN IN THE UNITED STATES**

Construction in the United States and in much of the developed world has been a gateway industry for low wage and exploited workers to advance into higher paying work. Immigrants who came to the United States from northern Europe in the mid-nineteenth century could get work as construction labourers. As those male workers gained more skills in the trades, later waves of immigrants from southern and central Europe filled the laborers positions. Construction jobs paid relatively well and wages increased as workers gained more skills and entered higher paid mechanical trades such as electricians, plumbers and sheetmetal workers. As construction workers organised into unions in the twentieth century, wages increased and the trades were among the highest paid working class jobs. Benefits, such as health insurance and pensions, were bargained as part of union contracts. In addition, unions and construction contractors created a joint system of apprenticeship training programmes that provided high quality skills training for up to five years at no cost to workers. The relatively high wages and benefits allowed members of immigrant communities to build the wealth needed to buy homes, send their children to college and have a secure retirement. Those benefits accrued to white working class

families from the early 1950s post-war period building boom through the rise of neoliberalism and the “global economy” of the 1990s.

Women, and to a large extent, Black workers and other workers of color, were excluded from these opportunities. With the exception of the wars years in the 1940s when women were encouraged to take male-identified jobs to replace those who were in the military, the rate of women working in construction was consistently under 2% (Moir *et al*, 2011).

The feminist movement of the 1970s challenged this discriminatory pattern. In 1978, the national government in the United States established a legally required goal for women working in the construction industry of 6.9% of contractors’ total work hours. The federal regulations also addressed discrimination and working conditions for women. The law specifically required contractorsto:

- “ensure and maintain a working environment free of harassment, intimidation, and coercion...”
- “where possible... assign two or more women to each construction project”
- “ensure that all supervisory personnel are aware of, and carry out, its obligation to maintain such a working environment” (CFR, 2003).

Following the 1978 regulatory changes and riding the wave of feminism, a small number of women entered the building trades in the 1980s believing that they were pushing through barriers that would result in a significant presence of women in the construction trades (Eisenberg, 1998). However, women’s employment participation rates and working conditions in the construction industry never approached the goals of the policy efforts or the dreams of the women pioneers who opened the doors. Thirty years after the federal government established the target of 6.9% and mandated an end to hostility to women in the construction work environment, women’s participation in the construction trades workforce remained at 2% plus or minus some fractional variations. Thirty years after access to good paying jobs in construction for women in the US became the law of the land, harassment, discrimination and intimidation continued to be common experiences among women in the trades or seeking to enter them. This period can be characterized as one of absence of government enforcement and absolute failure of policy implementation.

Construction work can be difficult and tedious; it is often dirty and dangerous and the industry is hostile to women's entry. Why do women in the United States and other western economies want to enter this environment?

The obvious reason women want to enter any non-traditional occupation is the relatively high wages in fields dominated by men. The average construction worker annual wage is nearly three times the federally mandated minimum wage and translates into a more livable wage for workers and their families than is available through many other occupations. Construction employment, especially the unionized sector, comes with health care coverage and pension benefits. The wages of women employed in the construction industry are comparable to their male counterparts. On an average, both male and female trades workers in the US earn an annual salary of \$43,350. Where women in the US make only 80 per cent of male wages, tradeswomen who are in unions make 95 per cent of male's wages. Women working in construction are closer to wage parity than women across all occupations in the United States (BLS, 2014).

But it is not all about the money. Studies have examined women's priorities and job qualities that drive career choices. After monetary rewards, women identify career satisfaction, job success, interpersonal success, and job balance as fundamental drivers of careers choice (Eriksen, 2009). Construction work in the unionized sector in the US embodies the first three of these four qualities. In essence, women want to work in construction for the same reasons men do. From digging holes to topping skyscrapers, building our cities, schools, highways and homes can give construction workers great personal satisfaction (Mansfield, 1991). In an economy where many blue collar jobs have been de-skilled and routinized, tradeswomen and men have a high degree of autonomy on the job; they retain a "pride of craft" and can take satisfaction in working with their hands to produce a finished product (Aherne, 2006; Moccio, 2009; Latour, 2008).

Given its ability to provide sustainable, living wages and the potential for job satisfaction, the building trades have the capacity to be an important conduit for women's economic and social parity (Moiret *al.*, 2011). The past decade has seen the resurgence of a national movement to increase women's access to good paying jobs in the construction trades. Tradeswomen's groups have organised to increase training opportunities and have lobbied for greater government resources

and enforcement. As leadership in the construction unions has gotten younger, there has been greater support for both gender and racial diversity. Finally, the industry's shortage of skilled workers has driven demand to open up the jobs to those who want them. In the state of Massachusetts, a broad based collaboration of industry stakeholders, the Policy Group on Tradeswomen's Issues (PGTI), has met informally but consistently for almost a decade. PGTI has developed a set of area wise best practices for gender and racial diversity that are being used on construction projects across the state. The result is that the number of tradeswomen has tripled in the past five years and the percentage of women construction apprenticeship in Massachusetts is approaching 7 per cent. These gains have validated the PGTI Model of multi-stakeholder collaboration and led PGTI to set a strategic goal of 20 percent tradeswomen by the year 2020.

### **3. INDIA'S WOMEN CONSTRUCTION WORKERS: BUILDING A COUNTRY BY HAND**

The largest number of women working in the construction industry in any country is in India. During the same thirty-year period (1980-2010) that saw no increase in access for women in the United States, the number of women working in construction in India increased by almost 500 per cent (Lahoti, 2016). One study estimated that the rate of women's participation in the construction workforce may be as high as 50 per cent (WIEGO, 2013). If the claim is accurate, there may be as many as 20 million women construction workers in India. This compares to 200,000 tradeswomen in the US and approximately 100,000 in the European Union (EUROSTAT, 2015). It is likely that there are more women working in construction in India than in all other economies across the world.

To understand the role of gender in the global construction industry and to explore the contradictions between access and exclusion, between good jobs and bad for women working in construction, one must understand the working and labour conditions of women in the Indian industry.

Academics and activists have extensively studied the subject of women working in the Indian construction industry. These studies range across many subjects and disciplines and include descriptions of the industry, conditions for workers and policy issues.

The construction industry in India has grown rapidly over recent decades and approximately 1 in 10 workers are working in the sector

(Chowdhury, 2011). An estimated 50 million workers were in construction in 2011-12 (Srivastava and Jha, 2016). The construction sector is the second largest employer of women in India, second only to agriculture. Many rural women migrate to urban areas to work in the informal construction sector on a seasonal basis (Akram, 2004; Chawada *et al*, 2012; Devi and Kiran, 2013). While estimates of women's participation in the construction workforce vary (CDPR, 2014; Devi and Kiran, 2013; WIEGO, 2013; Rai, 2012), all sources agree that between 90-99 per cent of women in India who are working in construction are in the informal sector (SEWA, 2000; ILO, 2007; WIEGO, 2013).

While the number of women employed in the industry is very high, the share of work done by women is much lower. For the rural poor, migration into urban construction is a family business. The men are employed full time as labourers. The women are employed but still responsible for all household functions of care of children; securing of food, fuel and water; cooking and cleaning; and more.

Women are primarily employed to do the heaviest and most repetitive low skilled tasks including digging, head loads, moving materials and supplies, and clearing rubble (Devi, 2013; WIEGO, 2013). Job stresses, including sexual harassment, gender-based discrimination, maternal health risks and exposure to worksite health and safety hazards, are well documented (Abrol *et al*, 2008; Bharara *et al*, 2012; Chawada *et al* 2012; Dasgupta, 2012; Devi and Kiran, 2014; Kakad, 2002; Lakhani, 2004; Madhok, 2005; Mehta *et al*, 2011; Sett and Sahu, 2014; Tiwary and Gangopadhyay, 2011., Tiwari *et al* 2012). The ergonomics of construction and the health effects of heavy and repetitive work on women workers have also been described (Basu, 2009; Maiti, Sahu 2010a, Sahu 2010b, Sett, 2014). Studies have addressed problems of work-life balance (Devi, 2014; Anvekar, 2015).

Construction workers in the informal sector have little access to labour rights (Chawada *et al*, 2012; Dalmia, 2012; Mohapatra, 2012). Women workers face even greater discriminatory practices such as lesser wages, non-payment of wages, and lack of legally mandated benefits (Dalmia, 2012; Tiwary 2011 and Gangopadhyay; SEWA, 2000; WIEGO, 2013).

In addition to deplorable working and labour conditions, women and their children often sleep and eat in unsanitary and dangerous locations. Women who migrate to urban areas often bring their children and live

within or around the active construction sites where they are working (Chawada *et al*, 2012; Dalmia, 2012). These are the stories behind the frequent news reports of women and children killed and injured on construction sites. Policies to alleviate the poor conditions of vulnerable workers in the construction sector were enacted in 1996, but many have questioned the effectiveness of implementation (Dalmia, 2012; The Times of India, 2014; Sen, 2014). Researchers and activists have called for expanded government intervention and implementation of protections at the state level (Baruha, 2010a, 2010b; Kulkarni, 2007; SEWA, 2000).

Proposals for advancing the interests of individual women have focused on training (Baruah, 2010a, 2010b; Madhok, 2005; Rai and Sarkar, 2012) and specifically training women in masonry skills (Barnabas *et al*, 2009, 2011; Kumar, 2013; SEWA, 2000). The Archana Women's Centre in Kerala has trained over 2000 women in masonry and seen their wages increase with their skill level. Proposals for more collective worker-centered solutions have included trade union organising and worker cooperatives (Nayak, 2013; SEWA, 2000; Siddiqui, 2011). Kerala's Kudumbashree initiative for women's empowerment has launched an all-female construction company that is building an eco-friendly village for tribal families (Times of India, June 9, 2014).

A unique innovation in India is the existence of mobile crèches. (Venkateswaran, 2013; Bajaj *et al*, 2013) Developed to address the fact that women construction workers have no alternative than to bring their children to work, on-site crèches can provide more than safety for the children and peace of mind of the mothers. In many cases, they provide a variety of "wrap around services" to families that have no government or employer-provided assistance. The crèches provide healthy food, educational opportunities and, in some cases, health services. As much as the creche movement is limited in scale and reaching only a fraction of the families that need the services, it is a successful model that is far advanced over conditions for families of construction workers in western economies.

A great deal of detailed and specific research has been conducted on the role in and the conditions of women in the very large and highly variable Indian construction sector. Srivastava and Jha's 2016 report on labour and the construction industry makes a considerable contribution to framing the research of the particulars within a comprehensive description of current conditions. Regarding women in the industry, they observe that:

- Increasing mechanization is “reducing the scope of female employment in the sector, and the industry is becoming more masculinized.”
- The trend is toward larger scale construction that “involves round-the clock activity and complete control over the worker’s labour time, which involves reducing the time workers can spend on personal needs and family care, including on activities such as cooking, care of children etc.”
- “Female labour is at the bottom of the work hierarchy with virtually no chances of skill acquisition and upward job mobility.”
- “There are strongly gendered and discriminatory features in the functioning of labour markets in the construction industry.” (Srivastava and Jha, 2016)

While women working in India’s construction sector are the most vulnerable of the vulnerable, policies “on the books” to protect them are comprehensive and strong. The 1996 “Building and other Workers (Regulation of Employment and Conditions of Service) Act” was a major accomplishment in extending social security and welfare protections to this workforce through registration procedures for workers and employers and through the establishment of state-based Welfare Boards. The Act entitles women construction workers to injury compensation and health and retirement benefits. The “Building and Other Construction Workers Welfare Cess Act” of the same year proscribed the funding mechanisms needed to ensure that the guaranteed protections of the first Act would be implemented. These government policies would be a model for the global community if they were in fact implemented. However government implementation of these policies is largely non-existent and few construction workers across India receive any of the benefits described in law (Srivastava, 2016; Pattenden, 2016). This failure of policy implementation parallels the failures in the United States where government mandated targets that were established to increase women’s access to construction jobs were not enforced and the industry was able to maintain practices and a workplace culture that discriminated against and excluded women.

The needs of India’s women construction workers are great but the mechanisms to vastly improve their working and living conditions exist. The task ahead is to mass the organizing power and political will to make the changes needed to improve the working and living

conditions of India's women construction workers. An international network by and for women construction workers could build bridges to support and expand that effort.

#### **4. BUILDING BRIDGES: A TRANSNATIONAL NETWORK FOR WOMEN CONSTRUCTION WORKERS**

Academic and activist researchers in both India and the US have extensively documented the working and living conditions of women employed in their national construction industries. The identified factors for the women in each economy are starkly polarized in many aspects, but one fact stands above all others: the few women working in the construction industry in the US can make a good living that supports themselves and their families while, for the millions of women working in India's informal construction sector, it is not just the work that is precarious. Life itself is precarious.

The contrast is sharp, but what of the comparisons? In every economy across the globe, women working in the construction sector are facing discrimination, exclusion and barriers to advancement and the opportunities needed to build stronger families and communities. In spite of their different individual experiences, women working in the industry have much to teach each other and can make common cause to improve the lives of women in all societies. Two prominent areas of common interest include training and unpaid family responsibilities.

Until very recently, women-only training programmes were the most visible and widely accepted approach to opening construction jobs to women in the US. However large investments by the US government in training women for skilled construction trades over the past twenty-five years to increase the supply of ready and able women workers has had no significant impact on the number of women entering and staying in the trades. With small variations regionally or over time, the percent of women in the trades in the US has held steady at 2-3% despite thousands of women receiving "pre-apprenticeship" training to prepare them to enter the industry. More recently, as the limitations of increasing "supply" have become clear, a "demand" approach has focused on connecting trainees to job opportunities through alliances with enforcement agencies responsible for policies mandating women's job opportunities and collaborations with construction developers and contractors who seek to increase the diversity of their workforce (PGTI, 2015).

Training in the construction industry in India has largely been “on the job” and passed down by and through male workers. With the exception of training in masonry and carpentry provided by the Archana Women’s Centre in Kerala and the Self-Employed Women’s Association in Gujarat and its satellite programmes, women working in construction have been restricted to the positions of manual labourers and helpers (Jacob, 2014; SEWA Academy, 2000). Today many industry observers contend that the construction sector in India is undergoing major shifts and changes in technology and is experiencing a shortage of workers trained in skilled construction trades. The need for higher skilled workers is driving the creation of training initiatives and the expansion government resources for training (Kakkar, 2014; Jain, 2016). What are the implications for women in the industry? First, as Srivastava has shown, although the absolute number of women in the industry is still increasing as the total workforce grows, the percentage of women’s participation is declining slightly. The conclusion is that the work that women have traditionally done in the industry is slowly being taken over by machines. The implication of this trend is that women, unless positive steps are taken to protect their place in the industry, will be gradually excluded from construction work. Where will these women go? While more research is needed to understand the trajectory of options for women if they are forced out of the industry on any large scale, current research would indicate that those options, which might include domestic work, sex work, return to rural poverty, urban begging, are limited and will be a downgrade in economic status for most women and families.

An alternative scenario would be the inclusion of a gender perspective on the future of training and upskilling in the construction industry and a strategic approach to keeping women employed in the industry and improving their status as the industry modernizes. Programmes within India and in other countries, particularly in Africa have demonstrated women’s skills and abilities at masonry. India’s own effort to build toilets throughout the country, the Swachh Bharat scheme, provides a foundation for introducing women to masonry skills and developing a network of women masonry trainers.

A second area of common interest between women working in construction within a variety of economic structures is unpaid family responsibilities. While the gendered nature of household responsibilities is not as stark in the US as it remains in India and the

widespread availability of modern conveniences reduces the burden of housework, women remain primary caregivers of children. In addition, a significant number of working women are single parents. The childcare crisis for working families in the US is characterized by a large gaps in the availability of childcare and high cost. For construction workers—women and men—who are primarily responsible for children, childcare centers cannot meet their needs of early hours, late work shifts or flexible times due to mandatory overtime demands. Insofar as construction workers in the West are aware of the mobile crèches of India, they see them as a model that should be available to construction families across the globe.

There is of course no comparison between the household demands of western women workers and the women of India's informal construction sector who work from rising to sleep cleaning, cooking, carrying and caring. Millions of migrant women are building modern India far from home, in shacks of their own making, with no access to clean water, education for themselves or their children or hope for health or security when they are no longer able to work. Their labor builds the cities but is hardly counted in the national statistics; their welfare and protection is legislated by policies that are not implemented; having been displaced from their ancestral homes, they are at risk of being displaced from the industry that has kept them and their children—just barely—from starvation and hopelessness. The state of the women construction workers of India is a benchmark for all women in the industry and their future is intimately connected with the future of women in construction globally.

## 5. CONCLUSION

Important and world-changing knowledge could result if cross-national dialogue on women's varied experiences with economic and political discrimination and exclusion in the construction industry can occur and sustainable relationships can be built. A next step in building these relationships will be the visit to India by *Building Bridges: The First Delegation of United States Tradeswomen to India*. Early in 2017, sixteen tradeswomen and allies will visit India for a two-week tour. The tradeswomen come from around the United States and represent various trades including Carpenters, Boilermakers, Electricians, Operating Engineers, Painters, Sheetmetal Workers and Labourers. In addition to the tradeswomen, other members of the Delegation are the General

Agent of the Boston Building Trades Council, a regional federation of construction unions; an Industrial Hygienist who is a construction occupational health and safety specialist; a women contractor who owns a construction concrete company; and a participatory action researcher (this author) with extensive experience researching issues of women in construction across borders. The goals of the Delegation members are to share their experiences of working in the construction industry in the United States, to describe the strategies which are being employed to improve the position of women in the US industry and to listen and learn first-hand about the situation of women construction workers in India.

Some initial topics for dialogue might include the following:

- What are the tools and strategies that women and their advocates are using to make this issue prominent in each country?
- How can the various communities that are actively involved in these important issues (self-help, NGO, academic, labour) be more connected and better networked?
- What are the leverage points for change in each country as the numbers of women working in the industry are increasing during the global construction boom?
- What is the role of women in the construction unions in each country? Who are the leaders? How can women's leadership grow?
- What is the role of the global construction industry in perpetuating the varied forms of inequality for women in the industry? Who are the global leaders in both opening opportunities for women and perpetuating exclusion and discrimination?
- What responsibilities do global construction firms have in efforts to increase equality for women in national economies?
- In both India and the US, how can national and regional governments be more effective enforcers of existing policies?

During their two-week visit, the Delegation will meet with labour and civic leaders in New Delhi, Mumbai and Chennai. At the conclusion of their visit to India, the Delegation will present recommendations for next steps to achieving an international network by and for women construction workers.

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## NOTES

1. Reports of 9-10% women in construction in the US are incorrect, as they merge office-based administrative and professional positions into the data on trades workers.
2. Equivalent to approximately Rs 289000 crore.
3. *Times of India*, July 6, 2014, "4 women, child among 11 killed in wall collapse near Chennai"
4. *India News*, June 29, 2014, "Rescuers Search for Survivors of Building Collapse in Southern India".
5. *Phuket Wan*, June 10, 2014, "Three Young Women Killed as Retaining Wall Collapses on Workers at Phuket Construction Site".
6. Indo-Asian News Service, June 1, 2014, "Three dead, 12 injured in Delhi building collapse".

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