



# Pushed to the Margins: Women Workers in Indian Coal Mining Industry

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# Women and Mining

- Mining is a highly male dominated industry
- Only 6% of total employees CIL is women, percentage of workers in coal mining is only about 3%
- Ratio of women in the workforce in mining sector in selected 15 countries is below 15% on an average, varying from about 1% to 25% and has changed a little during last 15 years or so (ILO, 2002: 15)
- The masculine image, however, not true picture of an industry where women worked in good ratio for a longer time

# Gender, Technology and Institutions: A Theoretical Framework

# Gender and Institutions

- Institutions are “humanly devised constraints that structure political, economic and social interactions” (North, 1991: 97)
- Institutions are both formal (constitution, laws, policies) and informal (customs, norms, taboos etc.)
- Gender is “full ensemble of norms, values, customs, and practices, by which the biological differences, between male and female of human species, is transformed and exaggerated into a very much wider social difference” (Kabeer, 1999: 4-5)

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- The gender differences or gender biases are not limited to informal customs and cultural values but are reflected in formal institutions (policies and laws) also
- Law is one of the most important formal institutions defining (or redefining) gender relations
- “Law reflects male understanding and not women experiences” (Gupta 2001:46)

# Shared Mental Models

- The mental models are the internal representations that individual cognitive system creates to interpret the environment” (Denzau and North, 1994:2).
- “Mental models gradually evolve during our cognitive development to organize our perceptions and keep track of our memories” (Mantzavinos et al, 2004: 76).
- In a society individuals communicate with other individuals in order to solve the problems. This communication results in formation of shared mental model (SMM), a framework for the common interpretations of the environment and a collective solution to the problems.
- Gender values are shared mental models

# Gender and Technological Changes

- Technological changes are outcome of social and environment and factors: Social Shaping of Technology
- Gender is one of the important social factors shaping technology
- “Relations of production are constructed as much out of gender divisions as out of class divisions.” (Wajcman, 2000: 449)
- “Industrial, commercial, military technologies are masculine in very historical and material sense” Cockburn ([1985] 2002a:127)

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- Boserup (1970) documented how technology and capitalist industrialization was displacing women
- Recent study of textiles industry also shows same results (Chakravarty, 2004)
- Positive or mixed impacts also highlighted
- Typewriters helped in secretarial work becoming women's domain but a loss of status
- Same is true about increased number of women working as flight attendants in the aircrafts

# Importance of informal institutions and SMM

- These examples highlight the important roles played by patriarchy (SMM and informal institutions)
- Women are forced out of production with technological advancement or are pushed to secondary status

# Women workers and technological changes in the Indian coal mining industry

- Around 1920s, women miners, known as *kamin*, were employed in variety of operations in collieries.
- Later, women workers got large scale employment as 'loaders' who lifted and transported the coal cut by their male partners - father, brother or husband (Seth, 1940: 131)

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- However, after 1920s, to meet the increasing demand of coal began the process of “replacement of opencast mines with the deeper shafts, **which were considered ‘unsuitable for women’**” (Lahiri-Dutt, 2001)
- The **ILO conventions** restricted women from night work (1919) and from working in underground mines (1935). In India Women workers were **banned legally** from working in the UG mines from October 1, 1937 (Ghosh, 1977: 140).

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- Effects of **technological changes**:
  - The loading and screening plants deprived women of much of their surface loading work for which they were chiefly employed.
  - The introduction of haulages reduced the trimming work. The using of pumping engines for bailing water removed another important work for the women.” Seth 1940

# Post Independence, Post Nationalization scenario

- After independence, not much progress as regard the mechanization could be made during the first two decades of planned development.
- Coal mines were nationalized in early 1970s
- The coal mining technology has changed very fast after the nationalization. The government's emphasis after the nationalization has been on highly mechanized opencast mining.
- Decline in women workforce have always been faster than that of men. In the late 1950s the men workers saw even an increase in their employment.

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- It is ironical that women workers have lost their jobs on such faster rates post Nationalization, when the emphasis has been on the opencast mines, where women can work except for the night shifts.
- But since the opencast mines are highly mechanized and using very sophisticated technologies, women workers are getting displaced from the coal mines at faster pace.

# Institutionalized Discrimination

- Special Female Voluntary Retirement Scheme (FVRS)
- 2960 women workers took retirement under special FVRS during 1993-1998 in CCL alone (CCL headquarters, Ranchi)
- In case of death of a male miner his wife would be given a job only when she is younger than 40. But in case of death of a female miner, there would be no age restriction for her spouse in getting the job on compassion ground. (Wage Board rules)
- Option to women dependents to accept monetary compensation
- Putting a male dependent on live roster, if more than 12 years, so that he is given a job when he is 18 years old.

# Patriarchy meets Technology: Gender bias operates in the collieries

- Division of labour: women are mostly in non-production oriented work (office attendants, security guards; and in manual and non-technical works in the mines
- They are not only less in number but have been pushed to the secondary status
- Shared mental models of people in the mining is largely not in favour of women working in mines

# Shared Mental Models of People in Mines

- There seems to be a consensus that women should not work in the mines and if at all they work they should be kept away from the main production work
- Most of the people are in favour of continuation of legal restrictions on women,
- A majority of the workers is not in favour of women of their family working in the mines.
- Most of the trade unions are supportive of the special female VRS

# Workers views on women workers

(Men: 60, Women: 16, Women in offices and as guards: 20)

Issue	Yes			No			Can't say		
	Male Workers	Female workers	Women in non-mining activities	Male workers	Female workers	Women in non-mining activities	Male workers	Female workers	Women in non-mining activities
Comfortable in working with opposite sex	45	11	16	10	5		2		4
Should men and women work together in mine	37	11	15	14	4	4	3	1	1
Should the law continue to ban women in UG mines	50	14	16	3	2	4	3		
Women be allowed to work in night shifts	9	3	3	36	8	16	3	1	
Should women be given priority in recruitment	31	10	14	20	3	3	5	2	3
Would you like women of your family to work in mines	25	8	12	21	7	4			

# Managers' views on women workers (Total 32)

<b>Issue</b>	<b>Yes</b>	<b>No</b>
Are there less women in mines	28	1
Should it improve	20	9
Should men and women work together in mine	18	6
Should the law continue to ban women from working underground	24	7
Women be allowed to work in night shifts	18	14

# How SMM works

- Management would threaten women to transfer far away places if they don't take VRS (told by women workers at Bhurkunda project)
- Most of the trade unions are supportive of the special female VRS.
- Men workers are not supportive when women workers try to learn handle machines, neither are their family members (larger society)

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- General feeling among the TU leaders is that mining is not a job women should do and if at all they work here they should work in the offices, in dispensaries, other such easy/soft jobs.
- The unions have promoted this mentality among the women workers to get their support

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- Men workers get training (mostly on job) to operate all the heavy machines (3 weeks to three months).
- No efforts to engage women in such trades (maximum one week training for women)
- “Both trade unions and management did not try to train women workers with the increasing mechanization in the mines” A senior trade union leader

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- Good results wherever little efforts are made
- Piparwar is a good example, as narrated by a Personnel Officer at Bhurkunda who was earlier posted in Piparwar
- After training 22 of the 40 women could pass the final exam and did work on machines in the Piparwar area
- But it is an exception

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- Women workers are mostly now waiting for the next special female VRS to be announced
- Among the women work in the office is the most preferable work.
- However, still there are some women workers who are ready to take 'work as work' and said they would not mind working anywhere.
- A few women also said that if working in group, even the UG mine is not a problem.

# Conclusion!

- The reasons of such apathy towards women workers are result of the gender values and norms, i.e. informal institutions and the SMMs of the workers, management and trade union leaders, which we discussed above, as well as of the society at large.
- Displacement and marginalization of women from the Indian coal mines is yet another example of women's marginalization from the productive economy and sending them back to the homes, which is considered, by the society, to be their actual place.
- The evidences from the field work and analysis of the policies and laws suggest that interaction of technology and gendered institutions and shared mental models in a highly patriarchal industry (in a patriarchal society) has led to further marginalization of women, ironically, justifying it in the name of welfare of women themselves.

Thanks