

From Gin Girls to Scavengers

Women in Raniganj Collieries

In the beginning, the coal mining industry employed women from the adivasi and lower caste communities in various stages of production. Their role continued to be significant as long as technology remained labour-intensive and collieries were small and surface-bound. The expansion of the industry and increasing mechanisation saw a decline in women's participation. This paper based on research in the Raniganj coalbelt in eastern India describes how the work of resource extraction becomes gendered, the growing marginalisation of women, and their increasing alienation from access to environmental resources and their transformation into illegitimate and invisible beings.

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I Introduction

Coal mining in India carried a symbolic significance at one time. It represented the new modern economy that began to flourish in Bengal during the British rule. It fuelled the engines of not only the Raj steamships but also the Nehruvian model of postcolonial industrialisation in India [Chakrabarty 1992] at a high cost to the environmental and social stability of these resource-rich regions. Like the plantations, collieries manifest almost all the symptoms of colonial modernity that descended on feudal economic relations and production systems: private investment and the involvement of indigenous capital, import of labour from other parts of the country to build up a reserve of 'captive labour', a low level of technology, and its nature of a secondary enclave (described so first by Rothermund and Wadhwa in 1978) meant to serve the primary metropolitan enclave.

The special feature of coal mining was the participation of women workers in the labour force, initially as part of a family labour system but also on individual capacity in later stages as certain castes (like the bauris for example) came to be seen as 'traditional coal cutters' by British administrators [Paterson 1910]. Women miners mostly came from adivasi¹ and lower castes traditionally inhabiting [see Riskey 1891 for more on the ethnic regionalisation in Bengal] this sal-forested jungle mahal tract of the Radh. Their roles in the resource extraction process were significant as long as the techniques remained basic and labour intensive, and collieries

were surface-bound. The participation of women in mines has declined remarkably in last three decades of the industry's nationalised existence, and this exclusion has occurred at the lowest level – the numbers of white-collar office employees included in the official statistics on gender divisions of coal workers have probably increased. Obviously, here is a problematic that needs looking into; put simply, who are being excluded? At whose cost? Where are the excluded women going?

The participation of local, poor, adivasi and lower caste women in coal mining is not comparable to the modes in which women in colonial Bengal were exposed to modernity. In Kolkata, women of upper caste or elite families were learning with the patronage of both Indian and English social reformers, how to read and write, and how to interact with men in spaces other than the domestic [Karlekar 1991; 1986]. At around the same time in Raniganj collieries adivasi women were working shoulder to shoulder with men in completely different circumstances. Standing noted (1991) that Bengali women, with the exception of a small professional group from the upper class, have conventionally taken little part in waged work. The separation of 'ghar' and 'bahir', the home and the outside world, was so complete in middle class, colonial Bengal [Chatterjee 1993] that there not many instances of women working together with men as in the collieries. On the other hand, the exclusion that is taking place now somewhat represents in a microcosm the post-colonial development scenario in which the poor and indigenous peoples such

as the adivasis and low ranking castes, and women have remained largely excluded in spite of a multitude of programmes. Exclusion of women workers from the coal mines, therefore, has a caste dimension.

Cultural identities such as caste and ethnicity are inextricably intertwined in India with class divisions, a fact that necessitated the rethinking of the assumption of a singular, monolithic working class [Guha 1982-97; Chakrabarty 1989]. The complexity that gender introduces in this relationship have been brought into focus by several experts [Fernandes 1997 for example]. Decline in the numbers of women workers in non-traditional roles outside of homes such as that as a miner in collieries is an interesting problem to study; collieries are where women had at once interfaced with men, with overlapping spheres of activities. From gin girls to scavengers has been a declining trajectory for the status of women miners. Tracing that path brings out how the state and international agencies, aided by a rigidly patriarchal state have worked together in defining a place for women in a gendered resource economy. This place is at a lower level, secondary to the needs and struggles of men, in Indian collieries.

Mining is widely perceived as a uniquely male world where the separation of men and women's lives is virtually total [McDowell and Massey 1984]. It is believed to be a dangerous, dirty, risky and hazardous job in which men go down the mines everyday to earn bread for their families, endangering their lives, and sharing risks that contribute to a particular form of male solidarity and also endow the

manual labour with attributes of masculinity. The unequal economic and social relationships between men and women imposed by the social organisation of mining increase the subordinate position of women in collieries both directly and indirectly.

In this paper I am trying to understand how the natural resource extraction process becomes gendered in the first place, what happens when women find themselves excluded from the mainstream economy, how difficult their survival becomes in the face of a rapidly deteriorating environment denying them access to the basic resources, and how the prevailing perceptions about men and women's spheres of work held by the International Labour Organisation (ILO), the trade unions and the state create gender polarisation at home and in the workplace. This paper describes the exclusion of women from the coal mining industry in trying to unravel the relationships between the various social, economic and political factors operating in producing this exclusion.

The research presented here was done over a period of seven years between 1993-2000 during which two other research projects funded by the environment and forests ministry, government of India, were carried out on the region. These projects involved repeated and extended visits to the coal mining and other settlements in Raniganj, meetings with the trade union leaders, mine managers, workers and their families, and other local women. Repeated interviews provided important insights into women's subjective experience of local-level environmental changes. Besides this interview material, I have used historical information from printed sources available in libraries as well as with individuals. Statistics from census reports were consulted as well as data from Eastern Coalfields Limited (ECL) and Coal India Limited (CIL) – the government companies in charge of mining in the region – and other actors in the industry such as directorate general of mines safety (DGMS) and the trade unions.

Official data usually club all women in the industry as one group leading to problems of understanding the nature of their jobs; so it was not of much help. In coal mining, as I have shown here, a specific group of women participated traditionally; exclusion means these women are being denied a role in the production process; not the urban, educated, middle class

women clubbed together in official data as 'women workers in the mining sector'. Above all, I have described how the marginalised poor adivasi woman has become invisible to policy-makers as the absence of alternative means of livelihood in a viable environment has forced them into scavenging and hence turned them into illegitimate people. I emphasise that the increasing marginalisation of women miners in the post-colonial or the post-nationalisation period has to be seen beyond the economic changes taking place within the country or the industry. It has to be put in the specific regional historical perspective and examined in terms of the changes occurring in that context. The exclusion of women miners and the transformation of the labour force into a predominantly male, immigrant working class represents a gender politics. National and international discourses produced by the state, ILO and the trade unions tend to conceptualise 'the working class' as a unitary category transcending both cultural and gender differences, and they juxtapose this unitary conception to the 'special interests' of women workers to protect them from what they see as a job for men. Marginalisation from the formal sector also has a long-drawn impact on the livelihoods of women, as in mining regions the environmental performance of the India state has usually been abysmal. A deterioration and decay in the subsistence resources eventually denies basic survival opportunities to the poorer women [Parpart 1995; Venkateswaran 1995].

The research concentrates on a specific region – the Raniganj coalbelt which is the oldest coal mining region located in the Burdwan district of West Bengal about 250 km northwest of metropolitan Calcutta. Mining in this old colliery region is still almost the only livelihood provider among many dying industries, overcrowding, decaying agriculture and severe environmental problems such as land subsidences and surface and subsurface coalfires. It has a high level of urbanisation – above 67 per cent of its population live in some 38 mining towns and other urban centres of various sizes [Lahiri-Dutt 1996]. The region received massive government investments since the Second Five-Year plan period and there were hopes that it would be transformed into 'the Ruhr of India' [Chaudhuri 1971]. However, none of the industries set up by the government has been quite successful and the region

now suffers from a chronic high unemployment.

II Coal Mines of Raniganj

Coal mining in India until independence took place almost entirely in eastern India. The history of coal mining in Raniganj, particularly in the early days of the industry, is synonymous with the way modern development has unfolded its trajectory in India. Local folk tales tell of a river-borne exchange trade of salt and coal between the Bengal plain and coast, and the Radh region of Raniganj. However, the need for fuelling the industrial-urban engine during the British Raj and later a 'planned' economy of India actually gave rise to collieries. Raniganj, with its counterpart Jharia in Bihar, had been the only supplier of coal in India for about 100 years since coal was first struck by Suetonius Grant Heatley and John Summer, two employees of the East India Company in 1774. They worked on six mines, three of which were at Chinakuri, Aituria and Damodar – all located well within the Raniganj coalbelt. Initially the Company showed little interest in further exploiting the potential of coal mining in India [Akhaury 1969]. So much was the reluctance that Heatley was even transferred – a rather common colonial instrument of punishment – to a remote district to discourage his mining enthusiasm.

Coal mining in Raniganj remained sporadic in nature as long as it was not realised that instead of transporting British coal to India by steamships, it is economical to extract this resource in India itself [Murty and Panda 1988]. This simple economics generated much enthusiasm in opening new collieries at random. The British emerged as the main investors when by the second part of 19th century coal mining picked up in the region. Transport to the main market in Calcutta was difficult as it depended on the Damodar and Ajoy, both seasonal rivers with low navigability and tendency to monsoonal flooding. The name 'Koilaghat' (coal point) in Calcutta strand still testifies to coal transport by rivers from the Raniganj region.

Three factors provided the initial stimuli for growth of coal mining industry – the abolition of East India Company's trading monopoly in 1813; opening of the Raniganj mine under European supervision; and the introduction of railways in 1855 [Munsi

1980] to facilitate coal transport to the market in Calcutta.

By the time of Hunter's famous visit to the region it was 'practically treeless' [Hunter 1872, reprinted in 1973], and a change in the region's social fabric had become notable. Indigenous entrepreneurs eventually came to dominate coal production; as many as 13 of the 17 companies were owned by Indian operators in early part of the 20th century [Bhattacharyya 1985]. Prince Dwarkanath Tagore's Carr, Tagore and Company was merged with Gilmore Humfrey and Co to form the Bengal Coal Company that soon became the largest operator. In 1860, the 50 collieries of Bengal Coal Company produced 99 per cent of Indian coal. The low levels of technology and capital investment ensured that local zamindars² could make an easy entry into the industry [Rothermund and Wadhwa 1978]. As mine owners concentrated on underground resources, and left the surface cultivation rights to local people, there were fewer conflicts with agriculture than at present, and instances of displacement from land-based occupations were fewer.

The land laws of India gradually began to change so that the mining companies started to gain control of both surface and sub-surface rights of the land as operations became much larger in size in the early 20th century [Manindra 1946]. As long as coal mining was 'extensive' in nature, technology did not undergo any decisive changes, the units of production did not grow in size, and mines of similar size were added to each other to increase production, women miners continued to take a significant role in the industry.

The coal mining industry was brought under state ownership in several phases during 1971-73 [Kumarmangalam 1973]. The private owners were given compensation and expelled from ownership, but the labour relationship they had instituted continued in the collieries. All minerals were classified into two categories – major and minor, and all major minerals including coal were brought under state control. India is now the third largest coal producer of the world with an annual production of about 299 million tons which is about 68 per cent of total energy resources of the country [Coal 1999]. The entire coal mining industry was put under the umbrella organisation Coal India Limited (CIL). Of its several regional subsidiaries, the collieries of the Eastern Coalfields Limited (ECL, controlling the Raniganj

collieries) had the largest number of women miners.

III Gin Girls

The term 'gin girls' reminds one of a technology of coal production that existed in the early days of the industry. Till the early part of 20th century, shafts were sunk every few hundred feet and quarries were often opened below the high water mark whenever an outcrop was found near a waterway. The mining appliances, tools and methods were simple. For example coal was brought from the face to pit bottom in head baskets, usually by women. There it was put into larger baskets (6-7 maund or about 250 kg) and wound to the surface by a winding engine, called a 'gin' (an abbreviation also used in other industries such as cotton). Women worked the 'gins', sometimes in groups of more than 20. Small 'beam' engines were occasionally employed to do the combined work of pumping and winding and were manned by three women. Steel tipped curved pieces of iron were used as picks with blunt wedges and hammers and one inch round crowbars.

Around 1920s, women miners were employed in a variety of operations in collieries. As steam engines 'phased out' gin girls, and collieries came to be owned by Indian entrepreneurs, women ended up working as kamins on surface as well as in underground mines. However, eventually women workers got large-scale employment as 'loaders' who lifted and transported the coal cut by their male partners – father, brother or husband [Roy Chaudhuri 1996]. This 'family labour' system was suitable in view of the primitive techniques used in the shallow open cast mines, locally called 'pukuriya khads' as well as the inclines.

The technology of coal production in India began to change in response to greater demands by 1920s. This meant the replacement of open cast mines by deeper shafts, which were considered 'unsuitable' for women. This technological shift and resultant exclusion of women workers took place at several scales; at the international level by several ILO measures – the 1919 Convention on Night Work (Women), the 1935 Convention on Underground Work (Women) – restricted women workers from working in both shifts and from working in underground mines [ILO 1999, 1997, 1996, 1988]. At the national level, the

Indian Mines Act, initiated first in 1901, restricted the age of employment of children in mines. In 1929 and finally in 1935 the Mines Act entirely prohibited company owners to employ women in underground work. Such orders were issued again in 1946, and then a complete ban in 1952 that stated that women miners will be employed only in surface work during the day shifts [Coal Handbook 1997]. These acts restricted the period of work from 16 to 12 to 10 and eventually 8 for underground workers and 9 for surface workers. The acts/measures were presented as a means of 'protecting' women from an unsafe job such as mining. The state assumed its traditional benevolent role through its commitment to the protection of women. The legislation tell us that women miners were perceived by the state as one group that needs to be 'protected' from the hazardous mining work. However, they had the impact of reducing women's work participation; in 1901 women formed about 48 per cent to total mineworkers in Raniganj. Of these women, 65 per cent worked in underground collieries. The proportion remained more or less the same till 1921 (38 and 60 per cent on surface and underground, respectively). The proportion of women miners decreased from such high levels to around 20 percent in postcolonial India.

The data in Table I show that the participation of women in collieries was somewhat significant till about 1930s.

The second world war provided exigencies that forced the mining companies to flout these acts/measures and women continued to be employed in large numbers in production to meet wartime demands. However, the net effect was that women became 'unofficial' employees, as there are very few quantitative data available on their participation during this time. The period between 1947-71 is another hazy area with regard to official statistics;

Table 1: Proportion of Women Workers in Eastern Indian Collieries(1901-96)

Year	Female	Male	Percentage of Female to Total
1901	26,520	55,682	47.6
1921	70,831	115,982	61.1
1935	67,899	122,454	55.5
1951	45,668	128,936	35.4
1961	41,457	134,928	30.7
1973	31,181	138,587	22.5
1980	16,094	169,136	9.7
1990	12,875	165,829	7.2
1996	9,879	151,855	6.1

Source: Compiled from Seth (1940), DGMS and ECL Reports.

this was the period of 'company' raj when local and non-local entrepreneurs had replaced local zamindar-owners in many Raniganj collieries. The feudal relationship between labour and colliery-owners was transformed into a more cash-oriented relationship, and the mining companies' primary objective became to increase production at any cost to supplement the industrial dreams of planned development of modern India.

The image of the coal worker invoked by both the state and trade unions is invariably a masculine one. Women have become invisible, persona non grata in the coal mining industry. Their role has declined at an alarming rate during the last two and a half decades under the state-ownership of coal mining industry. During this period the Indian coal mining industry has been characterised by two trends – increasing mechanisation to improve production through technologies such as dragline and shovel for the open cast mines and longwall for underground mines, and increased thrust on open cast mining to compensate for what CIL perceives as loss-making underground mines [Lahiri-Dutt

1999a]. The new technologies have not been developed indigenously. Many of the newly opened mechanised mines are usually worked with foreign assistance – both financial and technical. The conventional board and pillar system of mining still accounts for 95 per cent of the underground production in Raniganj. With such developments as shaft-sinking technology, deployment of longwall and other heavy capital equipment underground, and the introduction of dragline-based open cast mining, women have been assigned mostly unskilled tasks, whereas there has been no attempt to impart training and skills so as to enable them to adjust to the reorganisation of work. Women now occupy a marginal position in the Indian coal industry because they have been made redundant in the labour process [Ghosh 1984].

IV Family Labour and Women

When Heatley opened his first mine in 1774, he had invited experts from England besides employing the local labour.

William Jones, one of the British entrepreneurs to invest in coal mining, was the first to employ local adivasi and lower caste labour around the middle of 19th century. So easily were they absorbed in their new occupations that the British administrator of Burdwan district, Paterson, reported in 1910 in the Imperial Gazetteer that two-thirds of the total workforce in the mining industry was 'locally born'. Of the different local adivasis, the bauris were the first to bring their women into the collieries and their contribution in the early development of Indian coal mining industry was quite significant. The santhals, kols, koras and bhuinyas also joined the mining workforce along with their women. These are the people that are at the bottom of a caste divided society – mostly lower caste groups and adivasis who were being sucked into the mainstream colonial economy and society through the coal mining industry. Upper caste women usually stayed away from the colliery work.

Women of different local castes and communities participated in varying proportions in coal mining as seen from Table 2.

Civic Professionalism and Global Regionalism: Justice, Sustainability and the 'Scaling up' of Community Participation

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To British visitors A A Purcell and J Hollsworth (as mentioned in Sinha, 1975) such family labour systems appeared entirely 'different' from that 'in our collieries' where miners had already organised as an industrial working class. Collectively, Indian coal miners still had rather strong traditional rural roots and occupational loyalties. The local adivasi and semi-adivasi labour often used to leave the collieries during the rains to work in the agricultural fields, and this interfered with mining operations. In addition, there was the adivasi's love for freedom (that is often not mentioned in such studies, for example, see Read, 1931). In spite of working as miners, the adivasis never allied with the British in the empire building project and hence periodically withdrew from collieries.

The family system of labour operated well for several social reasons too – the adivasi sentiments of family attachment, and the unwillingness of women to carry coal for men of another caste. Above all, the dominant economic reason was that it provided uninterrupted maintenance of work schedule. Trade unions believe that the system was an exploitative one; as women as one single unit of production did not receive equal wages to men.

Collieries began to employ 'upcountry labour' (normally originating out of two simultaneous migrations – one from the western districts of Bihar, Gaya, Patna, Sahabad, Saran and Muzaffarpur while the other from the adjoining eastern districts of United Province – later Uttar Pradesh – such as Azamgarh, Balia, Ghazipur, Benaras, Jaunpur and Bilaspur) to create their own captive workforce. Thekadars (contractors) brought hard-working able-bodied males from eastern Uttar Pradesh, Bihar and even Madhya Pradesh. Intra-state voluntary migration was initially comparatively smaller in volume, possibly due to the ravages left by frequent bargi (Maratha raiders) attacks from the western states of India [Guha 1955]. A statutory body called the Coalfield Recruiting Organisation (CRO) was introduced to maintain, often forcibly, the supply of labour to the mines [Mahindra 1946]. Tales of how labourers were kept in chains in the coolie-barracks have now become part of the folklore in Raniganj. Work was at least for 12 hours and cash wages could never compensate for a kind of work that these agricultural people could never identify with. Many of the upcountry labour left the mines after their 11 month contract

period never to come back. Paku Mejhen, whose Santhal adivasi ancestors had lived in the region for generations, remembers how 'Bilaspuris' and 'Gorakhpuris' (labour from Bilaspur in Central Province and Gorakhpur in north India) were brought in to work in collieries and kept in 'labour depots'. The manager used to send the sardar (leader of workers, a foreman) to a depot to get a few additional hands as soon as there was a labour shortage. The CRO received commission from the companies in return of labour supply. Gorakhpuris, of course, began to permanently live in Raniganj as working conditions began to improve in post-colonial times when trade unions began to wield their full weight. Paku calls each coolie dhaora by its cultural name even now; to her it is always a santhal bastee, kora, nunia, Gorakhpuri or a Central Province (CP) dhaora. Most of the adivasis, however, responded to the import of migrant labourer by leaving the collieries to work in plantations in North Bengal or Assam. Gradually a large segment of the workers in the collieries become typically immigrant and male, caste Hindus from north or central India. Some adivasi women like Paku's grandmother still carried on, though their contribution in the resource extraction process was increasingly being devalued in more ways than one.

Another major factor of the exodus of adivasi labour was the introduction of new technology. The changeover from opencast and inclines to shaft or pit mining after 1920s required far greater initial capital investment and consequently, the interests of the colliery owners to secure a stable and skilled labour force grew considerably. In the capitalist production process that collieries adopted, local adivasis with their first commitment to land were not considered by mine-owners as a stable and dependable labour force. However, instead of encouraging the dissociation of land and labour, the 'companies' tried to maintain a semi-feudal zamindari style of functioning, and adopted a recruitment policy with the objective of offering a homestead to captive labour supply. The colliery workers, like other rural-based workers in Indian industries (see for example, De Haan and Sen, 1999 for more discussions on the cultural rootedness of industrial labour force in Bengal) neither economically nor ethnically belonged to the same class. The withdrawal of adivasi labour from Indian collieries during late 19th and early 20th

century proves the fact. It also indicates how changing techniques of production as well as changing production relations altered the social-ethnic composition of labour in collieries. When the state itself became the owner of resource extraction, its labour policy did not undergo significant changes from the 'company' owners. Trade unions – there are at least six recognised unions operating in the Raniganj region now – were delighted at the time of nationalisation but they too soon settled in their new role of bargainer with the state, apparently oblivious of subtle nuances of caste and gender in the workforce.

There are many accounts of coal mining in Raniganj in colonial records. One such was written in 1915 by Colond Frank J Agabeg, the general manager of Apar and Company, the pioneering coal mining concern in the Raniganj region. He described how Asansol, now a major urban centre, had then just started to develop and Raniganj was the most important mining town. Barakar town was the western terminus for the East Indian Railway, whereas Ondal had a large railway siding. Collieries located at a distance from the railway transported their coal by bullock carts across dirt tracks. Only those adjacent to the railway lines had sidings for loading and unloading of coal. The cost of such infrastructure construction was borne by the companies themselves. The Bengal-Nagpur Railway eventually extended the subsidiary lines to the less accessible collieries and thus an intricate network of 'company lines' grew up in Raniganj.

What was the view from below? Paku describes the hierarchical colliery life which placed women workers like her great grandmother at the bottom:

In the colliery, managershaheb was the boss. Borobabu was under him, translated his instructions and in case of any trouble controlled the situation. The manager-shaheb would shout, 'borobabuko bulao'

Table 2: Ethnic Division of Women Miners in Raniganj, between the Wars

Castes	Women/100 Men of Their Casts	Castes	Women/100 Men of Their Caste
Doms	111.0	Kurmis	67.5
Jolahs	59.4	Bauris	55.8
Mallahs	79.5	Rajputs	27.2
Beldars	102.0	Goalas	24.5
Santhals	87.9	Telis	45.5
Bhuiyas	80.1		

Source: Seth (1940), p. 129.

(call the borobabu)! Gomostababu managed the coolleys and kamins, gudambabu looked after the store, hazribabu took attendance, loadingbabu supervised coal loading, and batibabu distributed the lights. We santhals did all the dirty and heavy jobs – our men cut the coal and women loaded it in baskets. We grew up on collieries; in our family my great grandmother was the first to go into the khadan with my great grandfather.

Later, more babus (clerks) came to occupy middle-positions between the malkata (coal cutters) and the manager in collieries. The bijlibabu for instance appeared with the advent of electricity in collieries before the second world war. So came compassbabu (surveyor), miningbabu and inchajbabu (in-charge). This structure has remained more or less unchanged till now excepting the fact that some white collar jobs have come up for women in colliery offices. Men now operate the machines that have replaced women workers from surface and underground jobs, and there have been very few attempts to impart technical skills to the woman who enters the collieries as ‘compensation’ cases after the death of the husband.

V

Into Scavengers: Women and Resources

Each change in production technology within the industry also had a gender impact: the changes effectively excluded and marginalised women, the extent of exclusion depending on how men’s interests, needs and hopes are disproportionately represented.³ Therefore, the impacts of technology changes have been experienced differently by women than men in collieries. Since much of these changes was not autonomous and used indiscriminately without paying attention to its suitability to the region [Lahiri-Dutt 1999b], they have failed to stimulate other sectors of the regional economy. On the other hand, the obsession with the import of technological input has had major impacts on the regional environment and destroyed the natural resource bases and the livelihood sources of poorer, rural communities. The absence of opportunities in other sectors of the economy in mining regions such as Raniganj, especially the loss of commons and the decline in agriculture, have further affected women. In Raniganj, women’s banishment from the male world of ‘work’

has in several ways excluded them entirely from the power to determine their own lives. Three factors have contributed in the differential gender impact of coal production: gender segregation in the workplace, the less secure and more sporadic forms of employment relations which exist for women workers, and the very nature of technology as a social relation which is necessarily conditioned by gender relations. Women still participate in mining, including coal mining, in India and elsewhere in the world, but their roles remain significant as long as the resource process remains low-technology. In the Raniganj region, the introduction of underground mining restricted women to surface work, machines restricted them to unskilled work, the process of mechanisation generally reduced their opportunities in the coal mining sector, and a degraded environment truncated the alternative subsistence bases in agriculture, forestry, fishing and such other primary productions which have traditionally provided employment to local women.

Sitting in her ‘rehabilitation’ home Aduri Ruidas, an evictee, a person displaced by the World Bank-aided large open cast project at Sonepur Bazaari, was talking to me. She explained in a few words how a woman becomes a scavenger.

When the mining company takes the land on lease, it pays compensation to the owner of the land, and gives them jobs too. No one pays attention to what happens to people like us who had worked on that land. Who collected the twigs and branches and fruits from the bagan (orchards)? Who used the ponds for our daily water needs? Not only the owner of the land but we too. What will happen to us? What use do have of a brick house? Shall we eat it?

The trade unions have come a long way in the Raniganj region from the old days of long working hours, lack of security and frightful conditions as described by Dange (in 1945). They have indeed earned for the workers many benefits they presently enjoy, and have in turn made getting a job in collieries a highly attractive proposition – far better than what was described by the government of India in a 1967 survey report on labour conditions. Instead of treating ‘family’ as a unit of production to devalue women’s work, trade unions have earned equal wages for women and men in mining work. Ensuring that a widow gets the job of her deceased husband on compassionate grounds was also the achievement of trade unions.

However, the trade unions have remained insensitive to either the declining numbers of women workers in collieries or the fact that this exclusion means a certain group of women are left out. As institutions they are male-dominated and, while some trade unions have added women-related issues to their ‘list of workers’ demands’, their policies have not placed women at the forefront of these agendas. Women workers are thus excluded at the level of leadership and policy, and even if women are members they are discouraged to participate in union meetings. The belief in a monolithic working class is shared by all trade unions whether leftist or not, subsuming gender issues within class interests. This is neither surprising nor unusual; McDowell and Massey (1994) have showed how in the colliery settlements of Durham, England, gender segregation in the coal mining industry had led men to view themselves as industrial proletariat but enjoying the ownership of their home.⁴

Union activity in India has been described as being shaped by a gendered discourse that looks at women as a ‘special’ category externalised from the general interests of workers [Basu 1992]. In Raniganj too, the Colliery Majdoor Sabha takes pride in their mass movements and how women ‘participate’ in these movements, but it never goes beyond that. The active participation of women in leading or key roles in trade unions has not always been welcomed by male trade unionists in other sectors [Akerkar 1995]. Mining is an overwhelmingly male world in terms of power and domination; men are perceived to be risking their lives to earn the bread for their families. Labour leaders are vociferous that the family wage system was more exploitative; but generally refuse to engage in a debate on the declining numbers of women in the collieries. A senior union leader noted during an interview: ‘in a poor country like ours, let men get the jobs first’, reflecting the conventional wisdom that since ‘important’ economic problems such as mass labour retrenchment, mine closures and losses due to lack of productivity are intense, a debate on the position of women workers can only be of secondary significance. Women’s right to work is also compromised by the voluntary retirement scheme (VRS) which is used to get rid of ‘redundant’ workers.

In India the displacement of women from the industrial workforce and the subse-

quent construction of a male working class has not been limited to the coal-mining sector only. Jhabvala first showed in 1985 how retrenched women workers from cotton mills of Ahmedabad in west India were pushed into lower paying and insecure jobs. Banerjee (1991, 1992) too noted the lack of political protection of women by unions. Baud (1991) has demonstrated that in case of women workers in the Coimbatore textile industry in south India, gender segregation is most marked in the mill sector where regulation and trade union activity is more evident. In coal mining too, trade unions are less responsive to women workers than their male members' interests. The attitude to the women workers is condescending and in their 'noble' efforts to 'protect' the weak women, the trade unions often fail to look after women's issues and interest in a substantive way. Fernandes (1997, 1999) has shown how the politics of gender, class and culture produces notions about the spheres of work of women and men in Calcutta jute mills.

There is not much organised activism among the women coal miners; protests remain small, at individual level and discontinuous. Political silencing remains an important factor because of the organisational strength of the majdoor unions. The militancy of the trade unions, at least three of them being avowed Marxist organisations, is understandable. The way the unions perceive their jobs is significant too; the term 'majdoor' itself denotes a male worker and the occasional cases that are taken up are indeed seen as special ones. Dulali lost her husband in a wall-collapse accident and applied to the company for her own employment. Here is what followed in her words:

I made rounds of colliery offices for two years. Finally I went to the union leaders who insisted that I accept that my elder son may be given the job. Following their advice, I decided in favour of my son and now I hardly get two square meals a day.

Her son has now deserted her and she lives by what she describes as 'collecting coal' from an old abandoned mine. The company, supposedly had stowed the underground mine with sand and sealed it off. Now local people have broken off the seals and, finding that much coal is still left there and no sand has been stowed, are scavenging on it. Dulali is one of them. After deliberating in her mind for a long time when I asked why women like her

do not protest about the union's reluctance to entertain them, she said, "we are always ready for action, but first think before shouting. If the leaders are enraged, we will be in big trouble. So we keep quiet". When I probed further, she said, "Look at Prakashbabu (the local trade union leader) – he is just like other babus in colliery. How can he look after my interest?" What we have here is a double dose of exclusion, and a chain reaction of impacts that multiply and accelerate to immense proportions.

Not surprisingly, the only patronising initiative came from the establishment itself. In 1997, Coal India encouraged the formation of an organisation called 'Women in Public Sector' (WIPS) with the objective of optimising the full potential of its women employees and to play a catalytic role in improving the status of women. However, the organisation is a city-based one with white-collar women workers. It has so far limited itself in holding academic seminars instead of establishing a dialogue with the trade unions and the colliery management. Women miners who work in collieries are not represented at all in this organisation. Moreover, the mining industry has so far not taken any serious initiative to identify the technical job areas where women could be employed or trained.

The state measures reflect a compartmentalisation of the issue of women miners [Gibson-Graham 1994]. The various protective legislation developed for women miners, though probably designed to improve their working conditions, have acted as instruments to exclude them from the formal mining sector. The nationalised company has been unwilling to recruit women because of their special and protected status on the one hand, and on the other hand the legislation has not included any means for the protection of employment opportunities and job security. Thus the special biological attributes of women have been at the centre of concern by the 'protectors' rather than against discrimination due to cultural, social and economic factors [Pathak and Rajan 1992]. As a result, women of those ethnic groups that traditionally did mining jobs – usually the most disadvantaged of the lot – have been most affected than white-collar workers.

The exclusion of women miners brings out how an ideology of 'protection' continues to dominate women's active role in natural resource management. The sepa-

ration of 'home' and the 'workplace' is now complete in the Raniganj collieries. Women are protected within the family, work being a mode of access to a public space, a forum for combative actions to ensure equal rights. But are they, in reality? What happens after they have been protected from the dirty, dangerous mining jobs?

VI Changes in Resource Base and Gender

Mining by its very nature is an unsustainable activity from the ecological point of view. Mining in India is also unsustainable economically; if environmental costs are taken into account, even the most productive of mines would not seem terribly attractive. That in spite of the existence of innumerable laws and measures to monitor, mining in India completely alters and destroys the local ecology has been proven by innumerable studies [see Dhar and Thakur 1995 for a sample]. The overall environmental impacts of mining are uniformly detrimental and its human consequences especially in terms of displacement of social groups either from traditional homes or from traditional occupations leave much to be desired. The changing subsistence base constitutes another driving force behind the transformation of women's lives in Raniganj. Such changes often have negative effects on women from the point of view of alternative work in a degraded environment [Emberson-Bain 1994; Shiva 1989; Jose 1989; Tauli-Corpuz 1988]. An entire range of issues are, therefore, connected to the exclusion of women from resource extraction activity – the state and the rights of indigenous people, state policies regarding land transfer, and the rights of local communities over environmental and common pool resources.

In Raniganj, the state (through the nationalised mining company) is the largest landowner and the largest employer, besides having the ownership of all natural resources within its territory. As the pace of coal mining increased since 1970s, open casts expanded and newer collieries opened, a rapid rate of ecological destruction took place. The specific historical pattern of mining expansion in the Raniganj meant that there are innumerable underground voids at unknown locations. Since it is a densely populated and urbanised area, land subsidence, coal seam

fires, desiccation of vegetation and a falling water table are the main environmental concerns. These are related to livelihood resources of women of poor rural communities.

What is seen here is a classic example of feminisation of poverty, when 'development' itself brings about that poverty [Lebra, Paulson and Everett 1984; Mazumdar 1978]. Rural women in Raniganj have traditionally found employment in agriculture-related jobs. A decaying agricultural base and falling ground water tables, lack of wood, fuel, fruits and other subsistence resources which were usually collected from the village commons, and near-absence of opportunities in this mono-industrial region have combined together to completely alienate poor adivasi and lower caste women from the formal mining sector. This sector absorbs women at the lowermost strata in low-paying jobs such as manual labourers in the construction works, various small factories, brick-kilns, stone-crushing units, as rag-pickers and as domestic help, as sex-workers catering to truck-drivers, and as workers in the flourishing unauthorised coal mining and trade. The family is no longer a valid unit of production; the family and the factory are of no consequence to each other, and may even have contradictory interests. The result is a lowered, powerless status for women who continue to get drawn to the mainstream mining-urban-industrial economy at the lowest level as unskilled, low-paid, high-risk, illegal workers, while taking the full brunt of environmental degradation [Lahiri-Dutt 1999c].

Rothermund and Wadhwa (1978) noted a decline of agriculture albeit of a different type at pre-nationalisation times – zamindars squandering money, intermediaries and moneylenders benefiting from the wealth derived from agriculture, and the peasant at the subsistence level unable to produce enough food for market transactions. In the last three decades of rapid expansion of mining a decay in agriculture has begun to ravage the region's poor peasantry, a decay related to environmental impacts of widespread mining and inadequate policing by the state in enforcing good environmental practices. However, the deterioration of the natural resource base has affected even those rural women who were never directly engaged in coal mining industry. Agriculture, the traditional activity that women could fall back upon, has more or

less decayed over the last two and a half decades under state-ownership of the collieries. Much of the cultivation that one sees is actually on colliery-owned land and is again another form of 'illegal' activity like the scavenging for coal that goes on in old abandoned underground and open cast mines, and on privately owned land.

The past two decades have seen a global rethinking on what constitutes 'development'. In coal mining in India, development is state development. As the boundaries between public and private spheres, of cash/wage work and family/household, are created or redefined in the course of development, what are the implications for women in the resource process? What is the role of the state in defining the changing boundaries between public and private and how susceptible are these boundaries to state control [Charlton, Everett and Staudt 1989]? We saw that for women miners the enhancement of state control over mining has not offered greater opportunities than before. We have also revealed the contradictory positions of the Indian state with regard to gender relations in collieries. Through its laws of protection and welfare, and then exclusion from livelihood bases, the state simultaneously reproduces and endangers the gender-based division of the public and private spheres. In this way contradictions and inconsistencies in respect to gender issues become ingrained within the nature of development. **FW**

Notes

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1 I prefer to use the term adivasi meaning original inhabitants over other names for subaltern groupings of indigenous populations of India that include tribals, untouchables, dalits and harijans. Recently, Mendelsohn and Vicziany (1998) have retained the original term,

'untouchables', in their study arguing that both harijan and dalit are more political names for a creature whose identity continues to be rooted in the concept of ritual pollution that is itself a part of a very elaborate theology of the pure and the impure. I have used adivasi throughout this paper to mean the scheduled tribes of the region as identified by the Constitution of India.

2 The zamindars of Burdwan unlike those of the other districts, survived with an amazing degree of resilience and was able to make the changeover from the old zamindari system to the new order commonly known as permanent settlement and introduced by Lord Cornwallis in 1793 with but a few cuts and scratches. While other zamindars also played the same game, the Burdwan raj initiated the process, almost perfected the structure before others could even collectively conceive of it. Therefore, the Burdwan raj model of subinfeudation under permanent settlement has been described as sui generis, the best specimen, the leading species of what developed to be a large genus [Bhattacharyya 1985]. Major changes kept taking place in Burdwan region during the 19th century: a rise in the production, prices and exports of foodgrains; in the rentals; in production, prices and exports of each crop; tenancy legislation; coal mines; railways expansion and growth of the market in general; expansion and growth of the market centres; and decay of river-borne trade bringing down a set of older settlements along it with the rise of railways and new urban centres.

3 It is strange how mining is commonly seen as a heavy, masculine job whereas in reality women have done the manual jobs more efficiently than men. In post-industrial Britain for example, Reverend Eddy (1854) gave a vivid description where women stood or doubled, often in knee-deep water, in deep and thin shafts of collieries: 'females submit to labour in places which no man, or even lad could be got to labour in; they work in bad roads, up to their knees in water, in a position nearly double; they are below till the last hour of pregnancy; their limbs and ankles swell, and they are prematurely brought to the grave, or what is worse, a lingering existence.' A 16-year old girl working as windlass woman is quoted by Reverend Eddy as saying: 'we wind up eight hundred loads (a day). Men do not like the winding. It is too hard work for them.' However, the self-congratulatory public outcry that followed in Britain resulted in a double hardship for women as they were thrown out of employment. Once again petitions were placed that women may be restored to the privilege of working in the mines that they might not starve. The net result of all this was that working conditions for women were not much improved, but they entered the mines more subdued, more at the mercy of the owners, more voiceless.

4 That women and men are treated differently by trade unions is not quite uncommon. In Australia, for example, women workers formed their own unions as early as 1912. The Harvester judgment there was a landmark judgment, which fixed the wage for women at 54 per cent of the basic male wage. The basis of this was the

concept of 'family wage' – the notion that men had to support wife and children whereas women had only themselves to support. This had established women as a form of cheap labour but at the same time given them an 'unfair advantage' [Metcalfe 1987]. As female labour becomes cheaper, employers respond by trying to define more and more work as women's work. Male trade unions in turn defend their interests by trying to have women expelled from most areas of employment.

References

- Agabeg, EC (1915): 'Labour in Bengal Coalmines', *Transactions of the Mining and Geological Institute of India*, Vol VIII, Calcutta.
- Akerkar, Supriya (1995): 'Theory and Practice of Women's Movement in India: A Discourse Analysis', *Economic and Political Weekly*, Vol. XXX, No. 17, April 29, pp WS2-23.
- Akhauri, R K (1969): *Labour in Coal Industry in India*, Sterling Publishers, New Delhi.
- Banerjee, Nirmala (1991): *Indian Women in a Changing Industrial Scenario*, Sage, New Delhi.
- (1992): *Poverty, Work and Gender in Urban India*, Centre For Studies in Social Sciences, Calcutta.
- Basu, Amrita (1992): *Two Faces of Protest: Contrasting Modes of Women's Activism*, University of California Press, Berkeley.
- Baud, Isa (1991): 'In all its Manifestations – The Impact of Changing Technology on the Division of Labour' in Nirmala Banerjee (ed), pp 33-152.
- Bhattacharyya, Harasankar (1985): *Zamindars and Patnidars: A Study of Subinfeudation under the Burdwan Raj*, Burdwan University Press, Burdwan.
- Chakrabarty, B (1992): 'Jawaharlal Nehru and Planning: 1938-1941', *Modern Asian Studies*, Vol 26, No 2, pp 275-87.
- Chakrabarty, Dipesh (1989) *Rethinking Working Class History: Bengal 1890-1940*, Oxford University Press, Delhi.
- Charlton, Sue Ellen M, Jana Everett and Kathleen Staudt (eds) (1989): *Women, The State and Development*, State University of New York Press, Albany.
- Chatterjee, Partha (1993): *The Nation and Its Fragments: Colonial and Postcolonial Histories*, Princeton University Press, Princeton, New Jersey.
- Chaudhuri, MR (1971): *The Industrial Landscape of West Bengal: An Economic Geographic Appraisal*, Oxford and IBH Publishing, Calcutta.
- Coal (1999): *World Hard Coal Production, 1989-1998* (Mt), BP Statistical Review.
- Dange, S A (1945): *Death Pits in Our Land: How 2,00,000 Indian Miners Live and Work*, Asia Publishing House, Bombay.
- De Haan, Arjan and Samita Sen (1999): *A Case for Labour History: The Jute Industry in Eastern India*, KP Bagchi and Company, Calcutta.
- Deshpande, S R (1946): *Report of an Enquiry into the Conditions of Labour in the Coal Mining Industry in India*, Government of India, New Delhi.
- Dhar, B B and R Thakur (eds) (1995): *Mining Environment*, Oxford and IBH, New Delhi.
- Eddy, Reverend T M (1854): 'Women in the British Mines', *Ladies Repository*, Vol 14, No 7, pp 295-98.
- Emberson-Bain, Atu (1994): 'Mining Development in the Pacific: Are We Sustaining the Unsustainable?' in Wendy Harcourt (ed), *Feminist Perspectives on Sustainable Development*, Zed Books, London.
- Fernandes, Leela (1997): 'Beyond Public Spaces and Private Spheres: The Politics of Gender, Family and Community in the Calcutta Jute Mills', *Feminist Studies*, Vol 23, No 3.
- (1999): 'Displacing Women Workers on the Margins of Working Class Politics in the Jute Mills' in Arjan de Haan and Samita Sen (eds), *A Case for Labour History*, K. P. Bagchi and Company, Calcutta, pp 176-96.
- Ghosh, Anjan (1984): 'Escalating Redundance: Dispensability of Women Labour in the Coal Mines of Eastern India', Paper presented in *EIWIG Conference on 'Women Technology and Forms of Production*, Madras, October 30-31.
- Gibson-Graham, JK (1994): '“Stuffed if I Know!”: Reflections on Post-modern Feminist Social Research', *Gender, Place and Culture*, Vol 1, No 2, pp 205-24.
- Government of India (1967): *Report on the Survey of Labour Conditions in the Coal Mining Industry in India*, New Delhi.
- Government of West Bengal (1997): *Coal Handbook*, DM's Office, Burdwan.
- Guha, R (1955): *Bengal District Records: Burdwan*, Bengal Secretariat Press, Calcutta.
- Guha, Ranajit (ed) (1982-97): *Subaltern Studies: Writings on South Asian History and Society*, Various Volumes, Oxford University Press, Delhi
- Hunter, W W (1872, reprinted in 1973): *A Statistical Account of Bengal*, Vol IV, *District of Bardwan, Bankura and Birbhum*, Trubner and Co, London, reprinted by DK Publishing House, New Delhi.
- International Labour Organisation (1988): *Coal Mines Committee, Twelfth Session: Manpower Planning, Training and Retraining for Coal Mining in the Light of Technological Changes, Report II*, International Labour Office, Geneva.
- (1988a): *Women Workers: Selected ILO Documents*, Second Edition, International Labour Office, Geneva.
- (1996): *International Labour Conventions and Recommendations 1919-1951*, Vol 1, International Labour Office, Geneva.
- (1997): *Sectoral Activities: Mining*, International Labour Office, Geneva.
- (1999): *Social and Labour Issues in Small Scale Mines*, International Labour Office, Geneva.
- Jhabvala, Renana (1985): 'From the Mill to the Streets: A Study of Retrenchment of Women From Ahmedabad Textile Mills', *Manushi*, Vol 26, No 2, pp 2-5.
- Karlekar, Malavika (1986): 'Kadambini and Bhadrakol: Early Debates Over Women's Education in Bengal', *Economic and Political Weekly: Review of Women's Studies* 21, pp WS 25-31.
- (1991): *Voices From Within: Early Personal Narratives of Bengali Women*, Oxford University Press, Delhi.
- Kumarmangalam, S M (1973): *Coal Industry in India – Nationalisation and Tasks Ahead*, Oxford and IBH Publishing, New Delhi.
- Lahiri-Dutt, Kuntala (1996): 'Occupational Structure of Mining Towns of West Bengal', *Urban India*, Vol XVI, No 1, NIUA, New Delhi, pp 107-20.
- (1999a): 'State and the Market: An Analysis of the Crisis in the Raniganj Coalbelt', *Economic and Political Weekly*, Vol XXXIV, No 41, pp 2952-56.
- (1999b): 'The Promised Land: Coal Mining and Displacement of Indigenous Communities in Eastern India', *Asia-Pacific Journal on Environment and Development*, Vol 6, No 1, June 1999, Bangladesh Unnayan Parishad (BUP), Dhaka, pp 31-46.
- (1999c): 'Gender Inequalities in the Mining-Industrial-Urban Economy of the Raniganj Coalbelt of West Bengal, India' in Graham Chapman, Ashok Dutt and Robert Bradnock (eds), *Urban Growth and Development in Asia, Volume II: Living in Cities*, Ashgate Publishing, England, pp 167-76.
- Mahindra, K C (1946): *Indian Coalfields Committee Report*, Manager of Publications, New Delhi.
- McDowell, Linda and Doreen Massey (1984): 'Coal Mining and Place of Women: A Case of Nineteenth Century Britain' in Doreen Massey and John Allen (eds), *Geography Matters! A Reader*, The Open University, Cambridge.
- Mendelsohn, Oliver and Marika Vicziany (1998): *The Untouchables: Subordination, Poverty and the State in Modern India*, Cambridge University Press.
- Metcalfe, A (1987): 'Manning the Mines: Organising Women Out of Class Struggle', *Australian Feminist Studies*, Vol 4, Autumn, pp 73-96.
- Murty, B S and S P Panda (1988): *Indian Coal Industry and the Coal Miners*, Discovery, New Delhi.
- Paterson, JCK (1910): *Bengal District Gazetteers: Burdwan*, Bengal Secretariat Book Depot., Calcutta.
- Pathak, Zakia and Rajeswari Sunder Rajan (1992): 'Shahbano' in Judith Butler and Joan Scott (eds), *Feminists Theorise the Political*, Routledge, London.
- Parpert, Jane L (1995): 'Post-Modernism, Gender and Development' in Jonathan Crush (ed), *Power of Development*, Routledge, London.
- Read, Margaret (1931): *The Indian Peasant Uprooted*, London.
- Roy Chaudhury, Rakhi (1996): *Gender and Labour in India: The Kamins of Eastern Coalmines, 1900-1940*, Minerva, Calcutta.
- Rothermund, Dietmar and D C Wadhwa (eds) (1978): *Zamindars, Mines and Peasants: Studies in the History of an Indian Coalfield and its Rural Hinterland*, Manohar Publications, New Delhi.
- Risley, H H (1891, reprinted in 1998): *The Tribes and Castes of Bengal*, Volumes I and II, Firma KLM, Calcutta.
- Standing, Hilary (1991): *Dependence and Autonomy: Women's Employment and the Family in Calcutta*, Routledge, London.
- Tauli-Corpuz, Victoria (1988): 'The Globalisation of Mining and its Impact and Challenges for Women', *Third World Resurgence*, No 93, May 1998.
- Venkateswaran, Sandhya (1995): *Environment, Development and the Gender Gap*, Sage Publications, New Delhi.