

Dr. Prity Kumari

Independent Researcher

Nature of precarity and social Protection Status: Contract Labour Realities in Coal Mines Dhanbad Jharkhand.

Abstract:

Coal mining has historically served as a significant source of employment, primarily due to its labour-intensive nature. A defining characteristic of this industry is its reliance on a large workforce, with over 90 per cent of the workers belonging to economically and socially marginalized communities. The socio-economic conditions of coal miners have long been a matter of scholarly inquiry and policy deliberation. Despite its economic importance, the coal mining sector continues to grapple with numerous challenges, including occupational health hazards and inadequate social security provisions. This study seeks to explore the working conditions, challenges, and social security status of coal miners in the Dhanbad district of Jharkhand. It specifically focuses on assessing the level of awareness and understanding among workers regarding government welfare schemes designed for their benefit. The analysis is grounded in both primary and secondary data sources, including scholarly articles, research publications, and official government reports. In view of the ongoing challenges encountered by coal miners, it is essential to undertake a thorough assessment of their living and working conditions. Such an evaluation should inform the development of appropriate legislative measures designed to improve occupational safety, promote health and well-being, and elevate the overall standard of life for individuals work in the coal mining.

Keywords: Precarious work, Unorganised workers, Social Security, Social Protections, Minimum Wage

Introduction

India's economy is broadly divided into two primary sectors: the organized and the unorganized. A significant proportion of the country's labour force is engaged in the unorganized sector, as highlighted by the International Labour Organization (ILO, 2016). Workers in this sector are particularly susceptible to economic fluctuations, health-related challenges, and lack of social security, and they frequently remain overlooked in policy formulation and governmental initiatives. Despite these vulnerabilities, unorganized workers constitute over 80 % of the workforce in Asian countries and represent more than 60 per cent of the global labour force (ILO, 2018). Unorganized workers are present across nearly all industries in India, playing a vital role in the efficient functioning of the economy despite receiving disproportionately low benefits (Mishra, 2017). Their contributions to national development are substantial, yet frequently overlooked. The prevalence of unorganized labour has grown in recent years, largely due to the sector's flexibility. However, workers often face exploitation, inadequate wages, and excessive working hours ranging from 14–16 hours for migrants to 8–10 hours for local labourers. Marginalized communities such as scheduled castes, scheduled tribes, and backward classes experience high levels of illiteracy and indebtedness (Saran and Sandhewar, 1990). Reports of verbal abuse, deception, threats, physical violence, and sexual harassment are disturbingly common among these workers. According to the National Commission on Labour 1966-69 unorganized workers are those who "an account of certain constraints such as illiteracy and ignorance of workers, casual nature of employment, small size and scattered establishment and position of power enjoyed by the employers have not been able to organize themselves, in pursuit of common objectives". Because of their sheer numbers and omnipresence, unorganised labour is dispersed and fractured across the country. Precisely the same contract workers in India face a variety of serious problems, including job uncertainty and hazardous working conditions. Social security concept is now generally understood as a meaning protection provided by the society to its member through a series of public measures against the economic and social distress.

In India, research has completely ignored some of the most important features of worker's employment in the unorganised workers. As a result, little is known regarding the regional or area-level features of the unorganised workers operation, particularly in terms of coal mines workers working conditions. Basically, worker is a vital factor in the sphere of production in

the twenty-first century, when the progress of any nation is decided by its industrial achievements and production capability. Consequences, in India and many countries, gender inequality, discrimination is a ground reality in every sphere of the development process. As unorganized coal miners are not provided with adequate social protection, medical facilities, and other government benefits, they not only get increasingly poorer but also have shorter life expectancies.

Objectives-

The study aims to achieve the following goals:

- To assess the extent and effectiveness of social protection measures specifically in the domains of employment, health, and occupational safety available to these workers.
- To evaluate the level of awareness among coal mine workers regarding existing social security schemes.
- To propose actionable recommendations aimed at enhancing the overall working environment and welfare of workers in coal mines.

Methodology

This study adopted a comprehensive and integrative approach to examine the multifaceted challenges faced by workers employed in coal mines. The primary objective was to assess both the socio-economic status and the working conditions of these contract workers.

Specifically, the research focused on issues related to occupational environment, access to social protection, and awareness of relevant government policies among female coal mine workers. Given the limited availability of existing data, the investigation was primarily based on original fieldwork. Primary data were collected through structured interviews using a pre-designed interview schedule, while secondary data were sourced from scholarly articles, research publications, and official government reports.

A total of ten coal mines were selected through random sampling. Within each mine, fifteen Workers were chosen using purposive sampling techniques, resulting in a total sample size of 150 respondents. The collected data were systematically analysed using frequency distribution and per cent methods to derive meaningful insights.

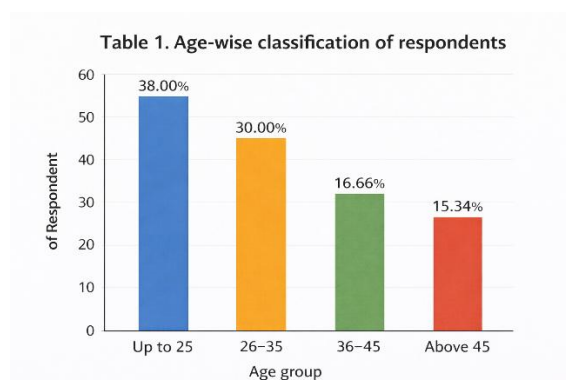
Scope of the study

Although the correlation between the nature of employment and access to social security has been thoroughly examined in existing academic discourse, there remains a critical gap in addressing the circumstances of contract workers within the coal mining industry. This segment, which has experienced significant expansion in recent years and is anticipated to assume a pivotal role in the sector, warrants focused attention.

This study highlights the adverse conditions and systemic challenges faced by unregistered coal miners, whose informal employment status effectively excludes them from the protections afforded by formal labour regulations. The findings derived from this research are expected to provide valuable insights into the unique vulnerabilities of these workers and offer a substantive basis for formulating targeted governmental interventions aimed at enhancing their socio-economic well-being.

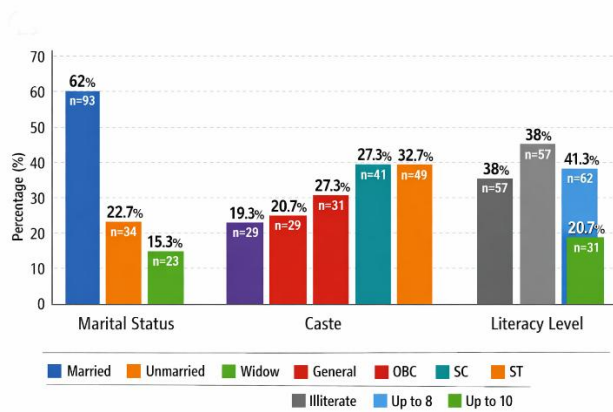
Analysis and Interpretation of Study.

Age	No. of respondent	Percent
Up to 25	57	38.00
26-35	45	30.00
36-45	25	16.66
Above 45	23	15.34
Total	150	100



Source: Primary data

Table 1 indicates that 38% of the respondents are aged up to 25 years, while 30% fall within the 26–35 age group. Additionally, 16.66% of respondents are between 36 and 45 years old, and only 15.34% are above 45 years of age.



Source: Primary Data

Above table indicates that 62% of the respondents were married, 22.7% were unmarried, and 15.3% were widowed in the study area. In summary, the majority of workers in unorganized coal mines are married, which suggests they bear greater family responsibilities and are more involved in household duties. It also describes the fact about the 32.7 per cent of workers belong from ST category and 27.3 per cent of workers belongs to SC category and 19.3 per cent of workers belongs from general Category. Education of Workers plays a significant role in the overall development of any society and family. Around half of the population in any country is female. Worker’s uneducated status translates into poor socio-economic conditions for the country as a whole if half the population is uneducated. Through the education of workers, social and economic development will take place and the development will be faster. Table 04 shows the level of education of the sample respondents is very low. It means that the rate of illiteracy among the female workers almost a matter of a great concern in the context of workers and equality for government and policy makers.

Monthly Income	No of respondent	percentage
Below2000	10	6.7
2000-3000	22	14.7
3000-4000	42	28.0
Above 4000	76	51.7
Total	150	100

Source: Primary Data

Table-6 Problem faced by coal mines workers		
No. of problems	No of Respondents	Percentage
Low Wage	17	13.7
Disease Problem	37	24.7
No job Security	43	28.7
Hazard work	18	12.0
Accident	04	2.7
Sexual exploitation	02	1.4
Lack of medical facilities	21	14.00
Abuse	08	5.3
Total	150	100

Source: Primary data

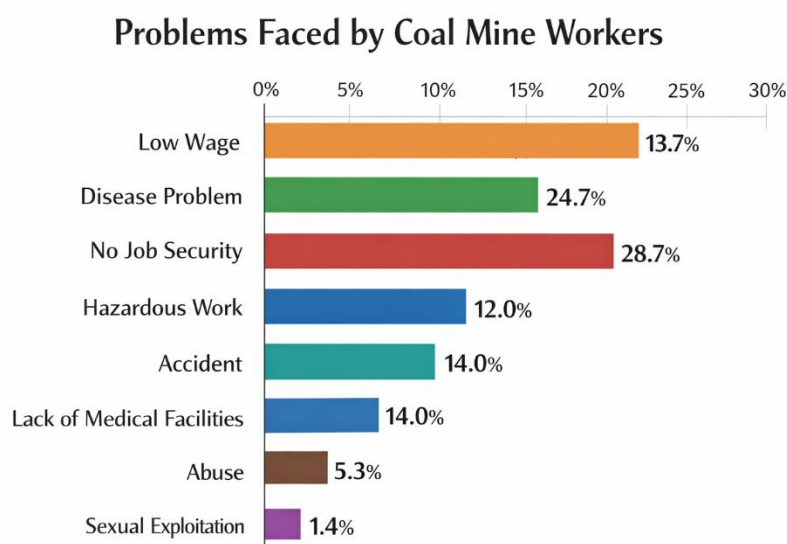


Table 6 highlights the various challenges encountered by Workers working in coal mines. From the diagram, it is evident that job insecurity is the most serious concern among workers, as it accounts for 28.7% of responses. This indicates that a significant number of workers feel uncertain about the stability and continuity of their employment. Such insecurity may arise from temporary contracts, informal employment systems, or the absence of proper labour protection policies.

The second most reported problem is disease-related issues (24.7%). Coal mining is physically demanding and exposes workers to harmful dust, gases, and unsafe conditions, which can lead to respiratory problems and other occupational illnesses. This highlights the poor health environment in mining areas.

Other notable concerns include lack of medical facilities (14.0%), low wages (13.7%), and hazardous working conditions (12.0%). These findings show that workers not only struggle with economic hardship but also face risky and unhealthy working environments. The limited availability of healthcare services further worsens their situation.

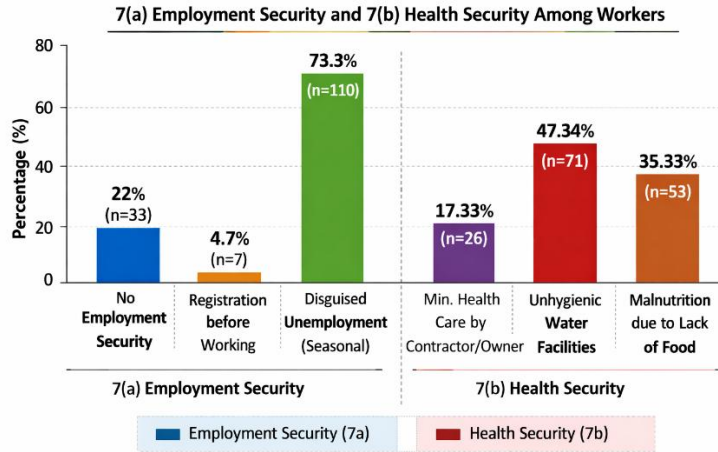
The diagram also shows smaller percentages for abuse (5.3%), accidents (2.7%), and sexual exploitation (1.4%). Although these figures are comparatively lower, they represent serious social and ethical issues that cannot be ignored. Even a small percentage in such matters reflects a need for strict monitoring and protective measures.

Table -7 Social Protection measures (Employment, Health and safety) of coalmines workers

7(a)Employment Security		
	No. of respondent	%age
No employment security provided by owner	33	22
Provision for registration of worker before working	07	4.7
Workers face the problem of disguised unemployment because of seasonality character of coal mining activities.	110	73.3

Table 7(a) shows that 22 % of the workers disclosed that there was no employment security provided by the contractor, hence sometimes if work is missed due to some reason conditions become pathetic. 4.7 % of workers accepted that before work in every mine there are still no provisions for registration. The highest 73.3 % of workers revealed that work depends upon production and seasonal characteristics of coal mining activities.

7(b)Health Security		
	No. of respondent	Percentage
(a)Minimum health care facilities are provided to the worker by the contractor /owner	26	17.33
(b)Unhygienic water facilities	71	47.34
(c)Workers suffers malnutrition disease due to lack of balanced food	53	35.33



The table 7(b) shows that 35.33 workers suffer from malnutrition disease and 47.34 suffers from any other skin diseases due to unhygienic water facilities. And 17.33 % respondents accept that in major accident minimum health care facilities provided by owner. And in table 7(c) 9.3 % workers revealed that in some mines area owner provide gloves and mask. The highest % (88.7) workers get basic facilities in minor accident and 2 per cent in landslide and major injuries.

S. N	No. of respondent	%age
(a). Provided safety equipment for protect injuries at Mines Area	14	9.3
(b)Fist aid facilities provided at accident time	133	88.7
(c) landslide and major injuries	03	2.0
Total	150	100

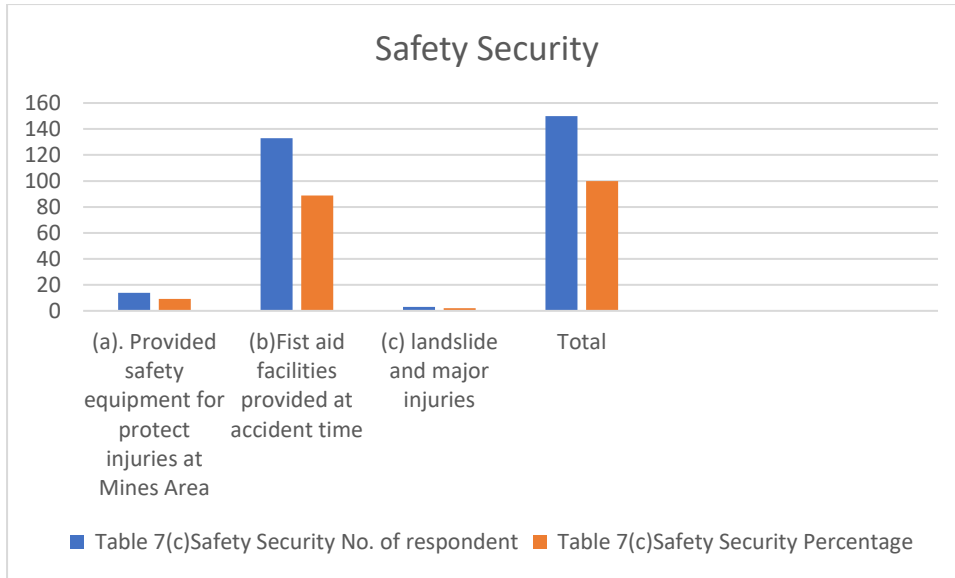


Table -8 Aware of any Government Schemes

Responses	No. of Respondent	%age
Yes	53	35.4
No	97	64.6
Total	150	100

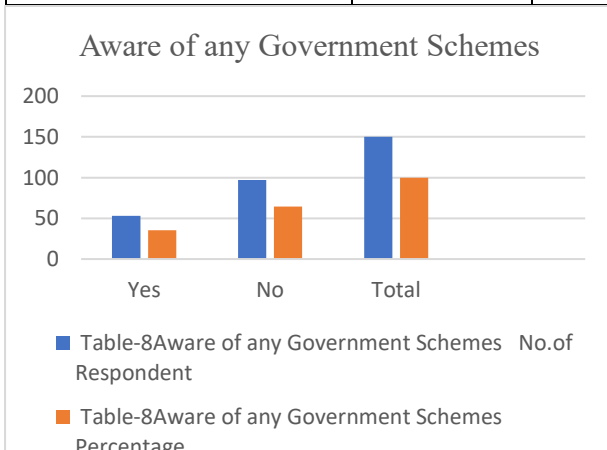
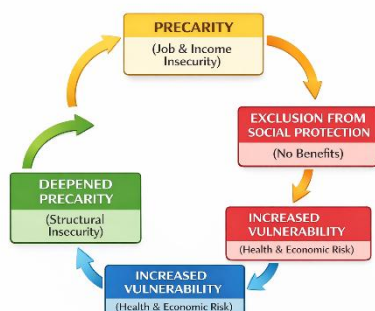


Table 8- indicates that a significant majority 64.6% of female workers were unaware of government schemes aimed at improving their welfare, including those related to wages, healthcare, and leave entitlements. Although 35.3% of Workers had some awareness of these initiatives, the absence of adequate institutional support prevented them from voicing their concerns. Consequently, they were forced to work under conditions marked by low wages and a lack of job security.



Source: Fieldwork

The model suggests that precarious employment should not be viewed as a temporary or isolated labour condition. Instead, it reflects a broader structural pattern shaped by gaps in social protection systems. When workers lack access to reliable welfare support such as health coverage, income security, or legal safeguards, their employment instability intensifies rather than improves. In this way, weak social protection does not simply accompany precarity; it actively contributes to sustaining it. At the same time, precarious forms of work further limit workers' eligibility for formal social security schemes. Because many welfare provisions are tied to permanent or formally registered employment, those in informal or short-term jobs remain outside institutional coverage. This exclusion gradually reinforces inequality within the labour market and makes insecurity a recurring condition rather than a transitional phase.

Findings- In the coal mines of Dhanbad district, low-wage workers are typically compensated at the minimum wage level. However, the study reveals that 13.7% of these workers do not receive the wages legally due to them. The mining sector in this region is characterized by its unorganized and fragmented structure. Due to widespread illiteracy and lack of formal skills among the labour force, individuals are easily absorbed into mining work. This vulnerability enables contractors to exploit them by offering substandard wages at their discretion. Mining activities expose workers to dust at every stage, posing significant health risks. The most commonly reported conditions include hypertension, heat exhaustion, myocardial infarction, and disorders of the nervous system. Long-term consequences such as respiratory disease, mental health disorders, and indications of genetic abnormalities have also been observed. Overall, the health impact on workers is substantial, with the study indicating that 25% of the workforce has experienced adverse health effects due to coal mining. Demographically, the majority of coal mine workers fall within the 18–25 age group. Among them, 62% are married and 15.3% are widowed. Educational attainment is generally low, with most workers being

illiterate or having completed only secondary education. The study highlights several persistent issues within these communities, including inadequate wages, poor health, job insecurity, hazardous working conditions, and frequent accidents. Furthermore, the combination of easy entry into the workforce, the disorganized nature of employment, and low literacy levels has been identified as contributing factors to the prevalence of sexual exploitation and physical abuse by contractors and mines owner.

Suggestions-

To address the persistent challenges faced by workers employed in coal mines in Dhanbad, Jharkhand, the following measures are proposed:

- **Legislative framework for unorganized workers:** It is essential for the government to enact a dedicated legislation that governs the employment conditions of unorganized coal mine workers, ensuring their rights and protections are clearly defined.
- **Improvement of Living and Working Conditions:** Comprehensive legal reforms should be introduced to enhance both the living standards and workplace safety of coal miners. Additionally, awareness initiatives should be organized to empower workers to form unions and collectively advocate for their interests.
- **Provision of Basic Amenities and Fair Compensation:** Worker's workers must be guaranteed access to minimum wages, sanitation facilities, safe drinking water, and maternity benefits. These provisions should be aligned with the cost-of-living index specific to the Dhanbad region to ensure adequacy and fairness.
- **Enhancement of Workplace Environment:** To enable workers to perform their duties efficiently, it is crucial to improve the overall working environment. A safe, supportive, and well-equipped workspace contributes significantly to productivity and well-being.

Conclusion

Mining plays a vital role in the economic development of nations, and India is no exception. The mining sector contributes approximately 2.3 per cent to the national GDP and serves as a cornerstone for industrial and socio-economic progress. By supplying essential raw materials to various industries, mining helps reduce dependency on imports, boosts exports, and generates substantial employment opportunities. Coal mining, in particular, has witnessed continuous growth, contributing significantly to both state and central government revenues.

However, the condition of coal mine workers remains deeply concerning. Despite decades of independence, these workers continue to face severe exploitation, lacking access to defined rights, responsibilities, and social security entitlements. Workers employed in coal mines endure a dual burden. In addition to managing domestic responsibilities and caregiving roles, they work in environments that often lack basic safety measures and essential facilities. As noted by Boserup (1970), Worker's economic marginalization is largely attributed to their reproductive roles and limited access to productive employment.

The working conditions for female coal miners are especially harsh. They are frequently denied legal recognition as workers, deprived of job security, and excluded from social welfare schemes such as pensions, health insurance, and provident funds. Consequently, they endure long working hours without receiving fair wages. Factors such as poverty, illiteracy, and the informal nature of their employment contribute to irregular work patterns and uncertain terms of engagement, forcing many Workers to operate in hazardous conditions. This situation reflects a broader issue within the unorganized labour sector, where social protection for female workers is virtually non-existent. Data indicates that approximately 88.33% of workers in principal employment roles do not receive any form of social security benefits.

Reference

- Boserup, E., Tan, S. F., & Toulmin, C. (2013). *Woman's role in economic development*. Routledge.
- Donoghue April (2004), *Occupational health hazards in mining: an overview*, *Occupational Medicine*, Vol. 54 No. 5, Pp 283-289
- <http://www.ilo.org/public/english/protection/ses/download/docs/india.pdf>.
- <https://economictimes.indiatimes.com/news/economy/policy/70000-contract-workers-to-get-coal-mines-pf-cover/articleshow/65762931.cms>
- Jha, N. (2015). *Coal Mining and Rural Ecology: A Study in Talcher, Odisha* (Doctoral dissertation).
- Lahiri-Dutt, K. (2006): Mainstreaming gender in the mines: Results from an Indonesian Colliery; *Development in Practice*, vol.16, No.2, April 2006, Routledge Publishing, and pp. 215-221analysis. *International Journal of Research*, 44.
- Mishra, S. (2017). Social Security for Unorganized Workers in India. *Journal of Social Sciences*, 53(2), 73-80.

- Mydral, G. (1968), *Asian Drama: An Enquiry into the Poverty of Nations*, Penguin Press.
- Naik, A. K. (2009). 'Informal Sector and Informal Workers in India. Special IARIW-SAIM Conference on '*Measuring the Informal Economy in Developing Countries*. New Delhi: Jawaharlal Nehru University.
- Prabhu, K. S. (1999). Financing Social Security in India: *A Human Development Perspective*. The Journal of Labour Economics, Vol. 39. No.1., 523
- Prabhu, K. S. (2001). *Socio-economic Security in the Context of Pervasive Poverty: Case Study of India*. International Labour Office.
- Quinlan, M. (2012). The 'pre-invention of precarious employment: the changing world of work in context. *The Economic and Labour Relations Review*, 23(4), 3-24.
- S. C. Panda et al "Impact of Mining on Health of Workers at Samaleswari Ocp, Brajaraj Nagar" *Department of Community Medicine*, Vss Medical College, Burla Sambalpur, Odisha
- Saheli, B. *Labour in Mining Industry in Eastern India*.
- Sanga Mithra, A., & Athira, T. (2020). An Analysis of the Extent of among Workers Workers Work Stress. *Shan lax International Journal of Economics*, 9(1), 47-49.
- Sanjay Sharma(2010)"*The impact of mining on Workers: lessons from the coal mining Bowen Basin of Queensland*, Australia
- Saran, A.B. and Sandhewar, A.N (1990), "*Problems of Workers Workers in Unorganised Sector (Brick Kline's, Quarries and Mines of Bihar and West Bengal)*", Northern Book Centre.
- Singh, R. V. K., & Singh, V. K. (2004). Status of mine fire of Jharia coalfield and suggestions for prevention & control. *Coal Mining Technology & Management*, 9(6-8), 38-44.
- Tripathy, S. N. (Ed.). (1996). *Unorganised Workers labour in India*. Discovery Publishing House