

Protecting the Rights of Migrant Workers in India's Coal Fields

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ABSTRACT

Many informal workers in India's coal states and districts depend on coal for revenue. These labourers mine, transport, and wash coal. Additionally, many people make a job collecting and selling coal. The informal coal economy is these employees. As India responds to the climate problem and capitalises on a cost-competitive renewable energy market and reliable supplies, a just fossil fuel sector transition is needed. India's coal demand must be halved by 2040 and 85% by 2050 to avoid catastrophic climate change, according to studies. Reduced coal demand will hurt coal workers. This paper seeks to understand informal workers in India's coal districts through ground surveys, stakeholder and expert interviews, and government and labour union documents. The paper classifies informal workers in the coal economy and discusses their types of work, wages, skills, education, gender discrimination, perceptions of coal mine closure in the coming decades, and aspirations for alternatives in the event of a coal transition. The article also discusses why informal labourers aren't well-documented and what needs to be done to plan and implement a just transition in India's states and districts.

Keywords: *Informal labourers, Gender discrimination, Stakeholder, Fossil Fuel*

INTRODUCTION

The Indian economy has always been characterised by its large informal and unorganised labour force. According to official estimates, more than 90% of the labour force is engaged in the unofficial sector of the economy. Despite being largely nationalised, the coal mining industry is highly unregulated. However, it is difficult to quantify the number of undocumented individuals who contribute to the coal industry. However, data on their varied participation in the coal industry across India's several coal-mining states and districts, including differences in employment terms and pay, educational attainment, occupational mobility, etc., is scant. Given the urgency of fossil-fuel transition in the face of a growing climate disaster, it is important to learn about the informal labourers connected to the coal sector and coal regions. The International Energy Agency (IEA) predicted in 2021 that India should cut its coal consumption in half by 2040, and by 85% by 2050.

The rising cost-competitiveness and reliable supply of renewable energy (RE) for power production, as well as breakthroughs in other clean energy sources, such as hydrogen, will also hasten a drop in coal consumption by different industrial sectors. The Government of India has set ambitious non-fossil energy targets for the next decade, including doubling the country's non-fossil energy capacity to 500 GW by 2030 and achieving half of the country's energy requirement through renewables in the same time period. In fact, within the next decade, U.S. coal usage will reach its all-time high.

Over the next three decades, the energy shift will affect at least 120 districts in 16 different states throughout India that are highly dependent on coal mining, oil, and other key fossil fuel dependent industries like steel, cement, and autos. At least sixty of these schools will have to deal with transition issues in the coming decade. In addition to producing 95% of India's coal and lignite, these regions also produce 60% of the country's thermal power capacity and 90% of India's automobiles and vehicle components. Jharkhand, Chhattisgarh, and Odisha, the three most important coal-mining states in India, account for around a third of these regions.⁵ It is also anticipated that over 2.6 million coal miners in India, of which approximately 70% are informal workers, will be affected by the change. In reality, among the heavy industries that rely on fossil fuels, the coal industry has one of the highest rates of informality (together with the steel and cement industries). In the coal industry's supply chain, the undocumented workforce performs a wide range of tasks. Coal gatherers and dealers can be found in various regions of Eastern India, and this is on top of the many formal workers involved in coal mining and related activities. Since this is the case, the energy shift will impact a diverse range of informal labour. Planning an energy transition that is both socially and economically just for India will therefore centre on the country's informal workforce. Therefore, it is

essential to include informal employees and the informal coal sector in any just transition plans.

This paper makes an effort to explain, in a nutshell, the situation of India's undocumented coal workers. In order to achieve this goal, the study examines several conceptualizations of informal workers and the informal economy as a whole and, taking into account the realities of India's coal districts, proposes a categorization of informal coal workers. In addition, the conditions of informal workers in the coal sector are clarified by taking into account observations made on the ground in a number of coal-mining states and districts. With an eye towards just transition discourse, the paper concludes by outlining some of the most pressing concerns that must be resolved before a complete picture of the informal workers in the coal regions can be painted, and the corresponding policies, plans, and implementation measures can continue to be all-inclusive and produce positive socioeconomic outcomes.

2. STUDY OBJECTIVE

There is a severe lack of data on informal labourers, despite the fact that they play a critical role in the coal industry. Given the lack of data on informal workers in India's coal industry and coal-producing regions, it's important for the just transition discourse to begin with a thorough understanding of this group, taking into account their working conditions, the tasks they perform, their education and skill levels, their income, and more. However, developing a method for measuring the number of informal coal workers at the sub-national level is crucial for accurate and effective just transition planning and intervention measures, which opens doors for everybody in the low-carbon economy. This study aims to shed light on the significance of informal workers in some coal-producing regions of India and their hopes for the future. While it is beyond the purview of this paper to provide a precise estimate of the number of informal workers, it does shed light on the current state of data with regards to the informal workers and highlight the gaps that need to be filled through further study and government intervention. These considerations are meant to aid in the study and discussion of just transition in India and to shed light on the phasing out of coal in other countries with large populations of informal workers in this industry.

3. APPROACH

The research focused on a three-pronged strategy to learn more about the informal workers in India's coal districts. Focus groups with informal workers in five coal districts of India were conducted to get the "ground level" perspective.

- i. A systematic literature review was conducted on informal workers in the coal sector.
- ii. Interviews were conducted with experts at the national and sub-national levels, including government officials, coal industry officials, union leaders, and civil society members.

Informal workers in five districts in the three largest coal states of Jharkhand, Chhattisgarh, and Odisha. This allowed us to capture the diversity of informal employees and their viewpoints. Hazaribagh and Bokaro in Jharkhand, Raigarh and Koriya in Chhattisgarh, and Angul in Odisha are only few of the places. (Table 1).

Districts with poor development indicators and those with better indicators, as compared to the India average, were considered for the evaluation, as were districts with a wide range of demographics (from rural to urban areas) and sizes of mining operations (from large mines and highly mechanised mining-related activities to small-scale operations, from opencast to underground mining and from profitable to closed mines).

There were a total of ten focus group discussions (FGDs) with 92 informal workers in these areas. The FGDs were set up in such a way that the wide range of informal employees in the coal industry would be accurately represented. Female participation and representation from underrepresented groups (such as Scheduled Tribes [STs] in focus group discussions [FGDs] held in the tribal-dominated areas of Koriya and Raigarh) were prioritised.

The report also considers data collected from the author's institution's research investigations in the Ramgarh district of Jharkhand and the Korba district of Chhattisgarh.

State	District	Rationale of selection of district	
		Mining scenario	Socio-economic context
Jharkhand	Hazaribagh	Producing about 17 million metric tonnes (MMT) of coal per year. Over 50% of the mines operated by the public sector undertaking Central Coalfields Limited (a subsidiary of Coal India Limited) are loss making.	One of the oldest coal districts in Jharkhand, with unique political economy dynamics that sustains a vast informal economy related to the coal sector. Poor development indicator, about 36% of the district's population is multidimensionally poor (India average 25%).
	Bokaro	i. Producing about 15 MMT of coal per year.	An industrial district renowned for its steel production. Development indicators better than India average. For example, proportion of multidimensionally poor people is 24%. The district's socio-economic status and locational advantage in the industrial corridor of Jharkhand, provide important perspective for informal workers.
Odisha	Angul	i. The biggest coal producer of Odisha, producing about 84 MMT of coal per year.	One of the largest industrial districts of the state. Coal mining and coal-dependent industries together make a fit case for understanding informality. Development indicators comparatively better, 25% of the district's population is multidimensionally poor, which is at par with India average.
Chhattisgarh	Raigarh	i. Producing about 14 MMT of coal per year.	District with significant proportion of tribal population. About 39% of the population belong to the ST category. Poor development indicators, about 37% of the district's population is multidimensionally poor.
	Koriya	Producing about 4.4 MMT of coal per year. Out of the 10 operational coal mines in the district, 9 are low-producing underground operations, and are unprofitable. Therefore, just transition is an urgent issue for the district and the coal workers.	Remote coal district with significant proportion of tribal population. About 47% of the district's population belong to the ST category, one of the highest among coal districts in India. Poor development indicators, about 38% of district's population is multidimensionally poor.

Table 1: Study Area

DEFINING INFORMAL WORKERS AND INFORMAL ECONOMY

Government and labour organisations provide the definitions of "informal workers" and "informal economy." There are two major official reports that might be regarded in this

regard in the Indian setting. Two such reports are the National Commission for Enterprises in the Unorganised Sector's (2007) and the Labour Bureau, Government of India's (2015). Employment in the Informal Sector and Conditions of Informal Employment, a report by the Labour Bureau, explains the situation of informal workers and jobs in India. Workers in the official sector who do not receive employment and social security benefits from their employers are also considered to be informal workers by the Labour Bureau. A similar concept was used in the 2007 study "Report on Conditions of Workers and Promotion of Livelihoods in the Unorganised Sector" by the National Commission for Enterprises in the Unorganised Sector (NCEUS). individuals who work in the informal sector are defined as individuals who "do not have employment security, work security, or social security," as stated in the report. These employees have jobs in both the unorganised and the formal economy (See sidebar on "Informal sector, informal workers, and the informal economy").

The Commission added more weight to the argument that informality is more common among the poor and vulnerable population. The majority of informal employees, the Commission found, are "casual workers" or "so called self-employed." The vast majority of them are paid wages that are so low that they are completely insufficient to lift them out of poverty and safety. Problems with "social identity, rural location, gender, and most significantly low or no education" exacerbate these predicaments. The Commission reached the conclusion at the time that approximately 79% of all informal labourers fall into the category of poor and vulnerable people. Although neither the Labour Bureau nor the NCEUS studies directly address the topic of informal labourers in the coal industry, they do provide valuable insights about the coal industry and the coal-producing regions of India. When it comes to labour unions, the International Labour Organisation (ILO) offers one of the most comprehensive definitions of informal workers and employment. When it comes to things like legal protection, employment security, employer-provided benefits, etc., the 17th International Conference of Labour Statisticians (ICLS) at the ILO in 2003 classified informal employment. The ICLS claims that informal workers do not have access to social protections or benefits, are not represented by a union, and do not have secure employment contracts.

Informal Sector, Informal Worker and Informal Economy

Informal Sector: The unorganized sector consists of all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten total workers.

Informal worker/Employment: Unorganized workers consist of those working in the unorganized sector or households (excluding regular workers with social security benefits provided by the employers) and the workers in the formal sector without any employment and social security benefits provided by the employers.

Informal Economy: The informal sector and its workers plus the informal workers in the formal sector constitutes the informal economy.

Source: National Commission for Enterprises in the Unorganized Sector (2007) and Labour Bureau, Government of India (2015)

DATA AND INFORMATION

Despite the prevalence of informal employees in the coal industry, official data is very lacking in this area. As of the 68th round of the National Sample Survey (2011-2012), the total number of undocumented miners (including coal and non-coal minerals) was estimated to be at a total of 2.1 million. According to the data, there are around 2.4 times as many people working in the mining industry in the informal sector as there are in the formal sector. The number of undocumented workers in the coal industry has also been estimated by independent experts. Field studies (interviews utilising semi-structured questionnaires) conducted in Eastern and North-Eastern India (encompassing the states of Jharkhand, West Bengal, and Meghalaya) provide a quantitative grasp of the topic, despite the paucity of written material on the subject. The study used data from these states to conclude that informal coal workers, coal gatherers and merchants, and subsistence coal mining (such as village mining) make up roughly 1.7 times the formal workforce in India. There is a need for

more research because the percentages vary widely between states and districts. Estimating the number of informal labourers at the district level in India is crucial for a fair transition, but this is where researchers have run into the most trouble. No district-level assessment of workforce statistics exists, and this lack is not limited to the informal workforce. Experts and scholars have noted that the most generally utilised resource on labour data, the Periodic Labour Force Survey (PLFS) data of the National Statistical Organisation (NSO), does not provide district-level estimates. Given the relatively small sample size of the surveys compared to what is actually needed to obtain data with precision at this level, they cannot be utilised directly to offer credible estimates at the district level. Researchers have been hampered by a dearth of district-level data, preventing them from making accurate predictions. Macro-level knowledge and estimations are consequently the most readily available. Given the wide variety of tasks performed by informal workers in the coal industry, the varying nature of their contracts, and the socioeconomic conditions that have given rise to a vast informal coal economy, collecting reliable statistics on this industry is a particularly difficult task.

6. UNDERSTANDING INFORMAL WORKERS THROUGH ON-GROUND STUDIES

The kind and degree of informal reliance on the coal sector in India's various coal areas varies widely. Coal's cultural and political significance in these regions' economies, as well as the specifics of mining operations, contribute to the wide range of outcomes. Based on observations made in several coal areas across the Indian states of Jharkhand, Chhattisgarh, and Odisha, this section describes the various sorts of workers in the informal coal industry and the conditions under which they toil. Household survey evaluation of informality



Figure 1: Proportion of formal and Informal workers in Ramgarh

According to interviews and focus groups with locals and state-level stakeholders, these problems have persisted in this coal region for over a century because of low wages, low levels of education, and a dearth of available alternatives. However, a different study conducted in the Korba area of Chhattisgarh, India's top coal producer in 2021, found different results. About 5% of homes in the district were involved in informal coal mining activities, according to a study of 600 households. This number is quite close to the percentage of households with a member with a professional coal mining job. The number of people who harvest and sell coal is extremely low. However, the coal transport industry, which is directly linked to coal mining, was found to have high instances of informality in Korba. According to the research, at least 15,300 individuals in the district are directly dependent on coal mining jobs in coal transportation (by road). Most of them (about 90%) are spoken in a casual manner. Also, while the number of people employed in transporting coal is 15% lower than the official employment in places where coal is mined. However, this doesn't account for indirect causes of reliance. Overall, the informal to formal reliance ratio in Korba was determined to be almost 1.6 to 1.2



Figure 2: Proportion of formal and informal workers in Korba

EVALUATION IN OTHER DISTRICTS

Ramgarh and Korba's findings on the informal workers in the coal business are insightful. Given the discrepancies between the two studies in terms of informal dependency and its relation to the coal economy, this investigation expanded to include surveys in five additional districts to fill in the gaps in our knowledge of the subject. As was said previously, the study's

time duration means that only a limited number of observations may be used to draw conclusions about problems like the types of informal engagement, terms of engagement, gender concerns, pay, and skill levels of the employees. Various have been gathered mostly through focus group discussions (using a set of semi-structured questions) with informal workers in various areas, as well as interviews with other stakeholders like labour union members and industry professionals. The number of people working in the informal economy in these areas was not estimated.

The evaluations at the district level highlight five main points. Among these are:

There are five main categories to consider when discussing informal employees: **i. Different categories of informal workers; ii. Terms of engagement, wage distribution, and skills; iii. Gender factors; iv. Opinion of informal workers on coal mine closure; and v. Aspirations of alternative livelihoods.**

Forms of Unformal Employment

Based on the evaluation, four main categories of informal worker participation in the coal economy were identified. Both the hiring of informal workers by the formal sector and the hiring of formal workers by the informal sector fall under this category. The informal coal economy consists of the two previously mentioned factors. Coal miners, coal washers, and coal transport workers are all examples of informal employees who are also active in the formal or organised sector. Coal gatherers and sellers are examples of people working in the unorganised or informal economy; they are sometimes referred to as "own account workers." The informal workforce performs a wide range of tasks in these settings (Figure 3).



Fig. 3: Engagement of Informal Workers in the CoalREgions

However, depending on where coal is mined, the percentage of these workers varies. Hazaribagh, Bokaro, and Angul are home to some of India's oldest coal mining regions, including the North Karanpura coalfields, the West and East Bokaro coalfields, and the Talcher coalfields; however, the majority of India's coal gatherers and sellers are concentrated in just these three districts.

Conditions of Employment, Salary Structure, and Expertise

In most cases, informal employees are paid very little for their efforts. Private contractors hired by the coal corporations or working under them were found to employ nearly all of the undocumented workers. Their contracts are typically short-term or are made on an as-needed basis, so their involvement is extremely disjointed. Many intermediaries are also involved.

Type of work	Skill level	Average daily wage (K)
Maintenance work	Semi-skilled	750
Drivers in coal transportation	Semi-skilled	700
Helpers in coal transportation	Unskilled	250-300
Loading/unloading	Unskilled	400
Cleaning	Unskilled	250-300
Miscellaneous casual labour	Unskilled	Varied
Coal sellers only*	Unskilled	400
Coal gatherers and sellers	Unskilled	550

Table 2: Wage distribution and skills

**The amount reflects their net earnings deducting the cost of buying coal from the coal gatherers*

Gender Issues: In the unofficial coal market, gender roles play a significant role. The percentage of men in the coal mining workforce is significantly higher than the percentage of women. It has been calculated that men make up almost 2.5 times as much of the official

labour force as women do. Because of discrimination against women in the official coal mining industry, many women are stuck in low-wage, dangerous, and insecure manual labour. Based on interviews and focus groups conducted in Jharkhand and Odisha, it appears that women are participating in the informal coal sector predominantly in unskilled or low-skilled labour roles. Among these include cleaning, occasional labour, and coal collection.

Commentary on the Closure of Coal Mines: While most informal workers rely on coal mining-related industries for income, these workers are paid very little and have neither job security or social insurance from their employers. That's why approximately 80% of people who participated in the FGD said they thought mining should stay open. Union members interviewed (across the three states) expressed similar concerns about impending mining closures. While the proportion of formal workers is rapidly declining, an increasing number of union representatives (especially in Jharkhand) are considering expanding unionisation efforts to include the informal sector's growing workforce. More than 500 informal employees, according to the union representative (INTUC) in Jharkhand. While this is just a start, the union will eventually be able to represent all of the undocumented workers who perform coal mining tasks. They believe this can be useful in the shift away from coal.

OBSERVATIONS AND INFERENCE

The following are some of the most important conclusions that can be made from the research on informal coal workers and the informal sector.

i. Categorization of Informal Engagement in the Coal Economy

In the coal industry, data on informal employees is mostly descriptive and anecdotal, with no definite categorization. The research sheds light on the many forms of informal participation in the coal sector and facilitates their categorization. Scholarly research and first-hand accounts from coal mining communities have revealed two distinct patterns of informal participation in the coal sector. Informal work can be found in both the formal and informal/unorganized sectors. Together, these two groups constitute what is known as the "informal coal economy"

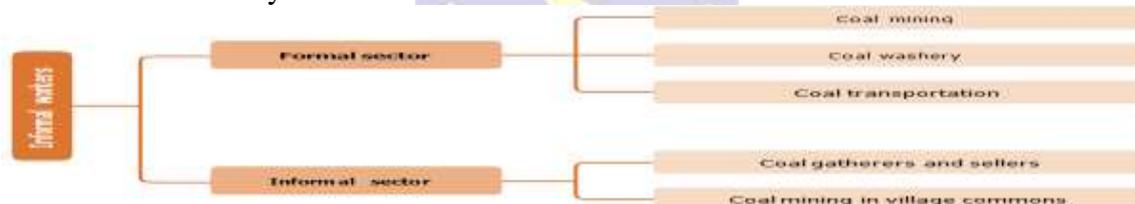


Fig. 4 : Informal Coal Economy

ii. Wage Issues and Engagement Terms: Compared to what is mandated for the 'workers of contractors' by the JBCCI, the wages of the informal employees involved in various sorts of activity are extremely low. Wages for 'unskilled' workers, in particular, continue to be significantly lower than the legally mandated minimum. In addition, informal workers' received' salaries are significantly lower than the national minimum wage rates that apply to them.

iii. Gender Disparity: Among the unofficial workforce, there is a notable gender gap. Although women are underrepresented in the coal industry's formal workforce, there are likely many more working in the informal sector (whose numbers were not available for this analysis). This study's literature research and on-the-ground observations indicate that, in addition to their regular domestic duties, most women are working in low-paying informal occupations like that of cleaners and other forms of temporary employment. Coal gathering is a major occupation for women, despite being one of the most dangerous and low-paying jobs there is.

iv. Inadequacy of data: Last but not least, a severe problem with informal labourers is the general absence of data, especially on a local scale. Although micro-level empirical research (such as district-level household surveys) will be useful, they will not be sufficient on their own for transition planning. Furthermore, such evaluations might occasionally result in subjective bias and data discrepancies.

In conclusion, it is worth noting that the informal economy in India's coal regions is a byproduct of the social and economic realities in many of these districts, as well as local political economy factors that have influenced land and labour relations in these areas. To achieve a just transition for the informal workers and the informal sector in India's coal districts, we need a comprehensive understanding of these factors. In order to do this, we need to generate trustworthy baseline data, conduct a ground assessment to capture worker diversity, skill and education levels, aspirations, etc., and engage several stakeholders to gain insight into the local context.

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