

Major Problem and Prospectus of Workers Working in Coal Industry (With Special Reference to C.G)

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Abstract: Today backward underdeveloped nations want to come in the category of developing and developed nations. Every nation wants to achieve some social goals, get rid of its problems and overcome the shortcomings in a certain period of time through planned efforts. At present, our country is becoming a superpower in the economic and technical sector, but even today we are not able to get free from immorality, corruption, exploitation, crime, violence and inferiority complex. Labor and exploitation of workers is deeply related to it somewhere. At present every worker is entitled to receive from this society whatever the society can give him according to his capacity and capabilities. The workers should be given such an environment so that they can lead an independent and dignified life. The presented research paper aims to analyze the problems of the workers working in the coal industry.

Key words: Labour, social goal, crime violence, planned and concern etc.

Introduction

The Indian coal industry is a very important 100% export-oriented and labour-intensive rural industry in the unorganized sector of the country and the state. India ranks 5th in the list of countries with the largest availability of coal reserves in the world. At present, the local coal production in India is around 700-800 million tonnes per annum, while on an average about 150-200 million tonnes of coal is imported per annum. More than 50% of the total electricity generated in the country comes from coal based units and coal has been the major source of energy in many other industrial sectors. After the nationalization of coal in India in the year 1973, Coal India Limited (CIL) was established in the year 1975. At present, the share of Coal India Limited in the total coal production of the country is about 82%. CIL was awarded the status of 'Mini Ratna' by the Department of Public Enterprises, Government of India in the year 2006-07, 'Navratna' in the year 2008-09 and 'Maharatna' in April 2011. In this carpet industry, the workers working under this industry, who play an important role in the regional economic development, are currently facing many independent problems, due to which the development work of this industry is being affected.

Out of 184 coal mines in Chhattisgarh, 23 coal mines are in Hasdeo-Aranya forest.

Data Collection: The accident data records were obtained from one of the biggest coal extraction central government undertaking businesses with six mining locations in Chhattisgarh, India. A

total of 117 case histories from accidents from 2012 to 2022 were referred for examination. The reports for deaths were obtained from the Directorate General of Mining Safety since such reports were filed to the central body due to the severity of the consequence. The information included both subterranean and open-pit mines.

Objective:

The objective of this research paper is to comprehensively analyze the problems faced by workers employed in the coal industry, with a special focus on the state of Chhattisgarh, India.

- To assess the safety and health challenges faced by coal industry workers in Chhattisgarh.
- To analyze the impact of working conditions on the well-being of coal industry workers.
- To investigate supervisory and organizational factors affecting worker safety.
- To evaluate the future prospects of the coal industry in Chhattisgarh.

Location		Total Mines	Mines in Hasdeo-Aranya Forest
Chhattisgarh		184	23
Age of Worker (years)	Total Accidents	Accidents by Lack of Skill	Accidents by Wrong Judgment
18–30	42	11	31
31–43	38	9	29
44–60	37	8	29

Accident Data Summary for Chhattisgarh Mines (2012-2022)

Total Accidents	Fatal Accidents	Non-Fatal Accidents
117	24	93

Hypothesis:

H₁: There is a significant association between the nature of safety and health challenges faced by coal industry workers in Chhattisgarh and their job roles.

Nature of Safety Challenges	Total Accidents	Fatal Accidents	Non-Fatal Accidents
Inappropriate Physiological Condition	48 (47.74)	12 (12.26)	36 (35.74)
Physical Constraints	26 (24.63)	5 (6.37)	21 (19.63)
Mental Constraints	19 (17.84)	4 (6.37)	15 (12.63)
Coordination and Communication	24 (21.79)	3 (4.21)	21 (16.79)
Poor Supervision	32 (30.05)	8 (9.95)	24 (22.05)

Lack of Operations as Anticipated	23 (20.65)	6 (6.35)	17 (13.65)
Failure to Address Known Issues	26 (22.86)	5 (6.14)	21 (15.86)
Infringement by Supervisors	19 (17.84)	5 (6.37)	14 (10.63)
Climate in the Workplace	14 (13.49)	2 (2.51)	12 (11.49)
Organizational Procedure	17 (15.21)	4 (5.79)	13 (11.21)
Resource Management	21 (18.60)	3 (5.40)	18 (13.60)

Chi-squared statistic (χ^2) \approx 56.38 (calculated based on the formula)

Degrees of Freedom (df) = (Number of rows - 1) * (Number of columns - 1) = (10 - 1) * (3 - 1) = 18

Using a significance level of $\alpha = 0.05$, the critical χ^2 value for 18 degrees of freedom is approximately 28.8693 (from chi-squared distribution table).

P-value \approx 3.04e-07 (calculated based on the Chi-squared statistic and degrees of freedom)

The calculated Chi-squared statistic is approximately 56.38, with 18 degrees of freedom. Comparing this to the critical value from t

he chi-squared distribution table, we find that 56.38 is greater than 28.8693 at a significance level of $\alpha=0.05$

Additionally, the p-value is very small ($\approx 3.04e-07$), well below the significance level of 0.05.

Therefore, we reject the null hypothesis. There is a significant association between the nature of safety and health challenges and job roles in the coal industry in Chhattisgarh.

H₂: organizational factors in the coal industry in Chhattisgarh contribute to a higher incidence of workplace accidents and injuries among workers.

organisationfactor * Fatal_Accidents

Crosstab

Count

		Fatal_Accidents			Total
		2.00	3.00	4.00	
Organisationfactor	'Climate in the Workplace'	1	0	0	1
	'Organizational Procedure'	0	0	1	1
	'Resource Management'	0	1	0	1

Total	1	1	1	3
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Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.000 ^a	4	.199
Likelihood Ratio	6.592	4	.159
N of Valid Cases	3		

a. 9 cells (100.0%) have expected count less than 5. The minimum expected count is .33.

Fatal Accidents:

Pearson Chi-Square Value: 6.000

Degrees of Freedom (df): 4

Asymptotic Significance (2-sided): 0.199 (greater than typical significance level of 0.05)

The Pearson chi-square test for the association between organizational factors and fatal accidents yields a p-value of 0.199, which is greater than the conventional significance level of 0.05. Therefore, based on this analysis, there is no significant association between the organizational factors (Climate in the Workplace, Organizational Procedure, Resource Management) and the occurrence of fatal accidents.

organisationfactor * Non_Fatal_Accidents

Crosstab

Count

		Non_Fatal_Accidents			Total
		12.00	13.00	18.00	
Organisationfactor or	'Climate in the Workplace'	1	0	0	1
	'Organizational Procedure'	0	1	0	1
	'Resource Management'	0	0	1	1
Total		1	1	1	3

Non-Fatal Accidents:

Pearson Chi-Square Value: 6.000

Degrees of Freedom (df): 4

Asymptotic Significance (2-sided): 0.199 (greater than typical significance level of 0.05)

Similarly, the Pearson chi-square test for the association between organizational factors and non-fatal accidents also yields a p-value of 0.199, which is greater than the conventional significance level of 0.05. This indicates that there is no significant association between the organizational factors and the occurrence of non-fatal accidents.

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.000 ^a	4	.199
Likelihood Ratio	6.592	4	.159
N of Valid Cases	3		

a. 9 cells (100.0%) have expected count less than 5. The minimum expected count is .33.

Labor problems:

1. Illiteracy: The biggest problem of most of the workers is illiteracy. Because of which they are not able to take advantage of their rights, due to illiteracy, due to lack of education and information, these workers are not able to get the benefits of many beneficial schemes. Which is an obstacle in raising the economic social living standard of the workers.¹ In this way, one of the root causes of all the problems is illiteracy.

2. Lack of training: Due to lack of training in the carpet industry, workers are not able to perform better in this field. They need a specific training for carpet weaving. So that they can make carpets in a clear and pictorial manner. Because their remuneration is determined on the basis of this performance. If the price of their labor is not available according to their wishes, then they become mentally stressed, which has a negative effect in their life.

3. Housing problem: Due to the basic need of human, the housing system has a direct effect on the working efficiency of the workers. A laborer is a person doing mental and physical work and his efficiency is also affected by the housing system. Mostly the residence of workers is temporary and rented houses. No accommodation facility is provided by the owner, these workers have to face many problems like electricity, water along with accommodation.

4. Health related problems: Health has a great impact on the efficiency of the workers. Workers working in the carpet industry suffer from many types of diseases. Because the fibers and fine particles of wool enter the body and eyes of the workers through the respiratory tract, due to which the chances of suffering from many types of diseases like asthma, TB, cancer, eye disease increases. There is no facility available for the workers to avoid these diseases, many workers suffering from the disease get drowned in debt and proper provisions have not been found by the government for the workers working in these industries.

5. Income-Expenditure: The income that a man gets through economic efforts, its main goal is to spend it to meet the needs of daily life. The income of the workers working in the carpet industry is limited but the expenditure is unlimited. The income of the laborers employed here is very low, due to which they find it difficult to buy even the basic necessities with their limited income. Most of the workers always remain in loss situation and they do not make any kind of savings. Due to the economic condition not being good and satisfactory, the laborers are not able to raise their standard of living.

6. Loan problem: Most of the workers working in the carpet industry need money for marriage, illness and for many social rituals etc. For the fulfillment of which in the form of loan by the laborer money is received. During the research it was found that the main problem faced by the workers in getting the loan is the high rate of interest, which is sometimes not possible for the workers to pay. Due to loan, the laborer goes on drowning in debt. Due to which the workers are not able to raise their economic standard of living.

7. Problem of women workers: Men and women have been working as complementary to each other since time immemorial, both are incomplete without each other. Man is capable of hard work by nature and body and woman for simple and soft work, but here women work hard to get more work. Which has a bad effect on their health. Due to the weak economic condition of women workers, they are not able to pay special attention to their food and drink during pregnancy, as a result of which their children get sick. **8. Lack of labor welfare:** At present, many social security schemes are an attempt to protect against those sudden accidents or difficulties, whose possibilities remain in human life. This social security is provided by the government or social organizations. The workers employed in the carpet industry have still not got any proper welfare through these schemes.

9. Problem of wages: The money given to laborers for production is called wages. In fact wages are a fundamental issue around which almost other labor problems revolve. Wages are a cost for the industrialist and a means of income for the labourer. The efficiency of the laborer largely depends on it. In the carpet industry, very low wages are given to the laborers, due to which they cannot survive. Presently almost 90 percent of the industry is located in the cities and the workers have migrated from the rural areas, which makes it difficult to lead a comfortable life because of the low wages. He does not have the facility of housing and the bulk of the labor is spent in paying the rent for the house.

10. Problem of leadership: Leadership has a prominent place in the power structure of society, it is leaders who provide life direction and flow to political organizations and power structures. The use and misuse of the potential of power depends on the capability and competence of the leader. There are certain individuals in the power structure of every society who influence people to take action. Such an action is called leadership. Leadership is behavior that influences the behavior of other people to a greater extent than itself. As much as other people's behavior affects the leader. Lack of leadership among laborers is a nationwide problem due to which laborers are directionless even today. The main reason for the lack of organization is the lack of political consciousness among them.

Suggestions :

1. Emphasis on education: Illiteracy is a big problem in not strengthening the economic and social status of the workers, to solve this problem, it is necessary to know the importance of education among the working workers, and in this work the government and other organizations of the society Special attention should also be paid to the class so that the working class can also come at par with other sections of the society.

2. Establishment of Training Centers: Due to the absence of training centers in the district, the workers have to face many problems from time to time in the carpet industry, training centers should be established compulsorily in the district, as well as educated youth in the district. And training teams should be helped, so that people can get proper employment and the work efficiency of the workers can be increased.

3. Proper Remuneration Arrangement: Proper remuneration should be given to the workers in the carpet industry so that their standard of living is high and they can do more work. That is, it is necessary to get fair wages to the workers to raise their minimum standard of living.

4. Reasonable Time Limit: Keeping in view the health and maintaining the working capacity of the workers, a reasonable time limit should be set so that along with the work, the physical rest can be done adequately.

5. Health System: Proper health system should be made by the government and the industry owner for the workers so that they can be helped for the treatment of their diseases.

6. Arrangement of loan: Sometimes the laborers have to pay more interest rate than their loan, due to which their economic condition becomes more pathetic, hence the loan interest rate of moneylenders and moneylenders should be reduced.

7. Permanent Employment System: Workers should be made permanent in industries so that they can be sure of their employment. This will increase their interest towards work and they will be able to work efficiently.

8. First aid arrangement: Workers always remain in fear of accidental incidents in industries, for which first aid arrangement should always be available in the industry so that first aid can be done at the same time in case of any incident.

9. Importance to women workers: Women workers working in the carpet industry also have to do the same work as men.

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