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OCCUPATIONAL SAFETY AND HEALTH IN INDIA: A NEED FOR A PREVENTIVE AND ACCOUNTABLE WORKPLACE CULTURE

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ABSTRACT

Occupational Safety and Health (OSH) has become an increasingly important concern in India as industrialisation, urbanisation, technological development, and the expansion of employment continue to reshape the world of work. Workplace safety is no longer limited to preventing machinery-related accidents or physical injuries. Workers may face chemical exposure, biological risks, unsafe equipment, poor ergonomics, occupational diseases, excessive working hours, workplace violence, stress, and other psychosocial risks. These concerns exist across sectors, including construction, manufacturing, mining, chemical industries, agriculture, informal employment, and healthcare. India has developed a substantial legal framework for protecting workers, culminating in the Occupational Safety, Health and Working Conditions Code, 2020, which came into force on November 21, 2025. However, the existence of legislation alone cannot guarantee safe working conditions. The continuing occurrence of workplace accidents, under-reporting of occupational diseases, inadequate safety infrastructure, and institutional failures demonstrate the need for stronger implementation and accountability. Recent attention to workplace safety following the R.G. Kar Medical College incident has further shown that occupational safety also includes dignity, security, gender-sensitive protection, and psychological well-being. The central concern, therefore, should be to move from a culture that reacts to accidents towards one that identifies and prevents risks before workers are harmed.

Keywords: *Occupational Safety and Health; Occupational Hazards; Workplace Safety; Occupational Diseases; Worker Protection.*

I. INTRODUCTION

Occupational Safety and Health (OSH) in India is an area of growing importance due to rapid industrialisation, an expanding workforce, and increasing awareness of health and safety at the workplace. Occupational safety and health is a joint responsibility of the government and employers, especially for industries exposed to high occupational hazards. Some of the industries in which employees may be exposed to severe physical, chemical, biological, mechanical, ergonomic, and psychosocial risks are construction, manufacturing, mining, the chemical industry, and healthcare. The main purpose of OSH programs is to provide safe and healthy workplaces, preventing accidents and diseases. Occupational health is an interdisciplinary field focused on the workers' physical, mental, and social well-being, which is more than only absence of disease. In the same manner, the World Health Organization defines occupational health as the promotion and maintenance of full physical, mental, and social well-being of employees and as improvement of their working conditions and environment. A safe workplace is a workplace where risks are either removed or controlled at an acceptable level. Therefore, occupational safety implies not just a reaction to accidents. It implies risk identification, risk assessment, implementation of preventive measures, and appropriate training and establishment of the safety culture at the workplace. Occupational hazards affect the health of not only the individual workers exposed to such hazards but also of their co-workers, relatives, employers, clients, and all those who are influenced by the environment in which the work is being carried out. Physical and organizational surroundings, social and economic situation, inequality at the workplace, health support, and occupational health provision are all factors that can affect the state of health of a worker.¹

II. OCCUPATIONAL HAZARDS ACROSS DIFFERENT SECTORS

Occupational hazards rely heavily on the area of work. A physical hazard could be things like harmful noise, extreme heat, hazardous machines, or a place of work that is difficult to work in. Chemical hazards could occur from dust, poisonous products, inhaling chemicals, harmful gases, pesticides, or similar products that can harm people who come in contact with them. Biological hazards are also obvious when a person is exposed to infections, blood, bodily fluids, or contaminated pellets. Ergonomic hazards may arise from operating in uncomfortable positions, stressful work, working too mechanically, or due to the bad interior design of the

¹ Brindha K, *Safeguarding Worker's Rights: The Implementation of Occupational Safety Health in India Legislation*, 6 IJRPR 4797, 4797 (2025).

workplace. Mechanical hazards may derive from unsafe machines, while psychosocial hazards might apply to heavy and hard work due to shifts, pressure, violence, and insufficient organizational support.² Such risks also impact smaller-sized enterprises. Nonetheless, the supplied material points to the necessity of implementing health programs in every area of work while paying special attention to the fact that there are many areas where workers are vulnerable because of the lack of occupational health facilities and expertise.³

III. LEGAL AND HISTORICAL DEVELOPMENT OF WORKPLACE SAFETY IN INDIA

The development of the workplace safety framework of India has taken place with industrial growth and the change in notions regarding the rights of workers. After independence, it was the Factories Act of 1948 that proved to be an important legislative measure in the area of workplace safety, health, welfare, ventilation, state of equipment, and condition of work. However, as India experienced economic growth from traditional industries to service industries like education, healthcare, etc., safety at work started to involve several issues such as mental health of workers, gender issues, harassment, and the dignity of workers.⁴ “Workplace safety is more than just a set of rules; it is a core moral and legal responsibility. Important rules to protect employees are outlined in laws like the Occupational Safety, Health and Working Conditions Code, 2020, and the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013. However, constant enforcement and a genuine dedication to moral behaviour by organizations are necessary for true safety”.⁵

The broader basis of occupational safety and health in India is provided by the Constitution and international framework. It forbids the employment of children below the age of fourteen in factories, mines and dangerous jobs and safeguards the health and strength of the employees from improper work. The Directive Principles of State Policy require the State to protect the livelihoods of employees and safeguard their health under Article 39, provide for the social safety of the employees under Article 41, ensure decent working conditions under Article 42

² Minikumary C. K., and Jawahar S. K. Pillai, *et.al.*, *A study on occupational safety and health among workers at a tertiary care hospital at south India*, 10 INT J COMMUNITY MED PUBLIC HEALTH 254, 254-255 (2023).

³ Occupational Health And Safety In India, SCRIBD, <https://www.scribd.com/document/255991726/A-STUDY-onOccupational-and-Safety-Health-in-India> (Last visited Sep. 30, 2026).

⁴ Jaya Singh, *Workplace Safety Failures in India: A Case Study of the R.G. Kar Medical College Tragedy*, VIII IJLLR 6981, 6986 (2026).

⁵ Jaya Singh, *Workplace Safety Failures in India: A Case Study of the R.G. Kar Medical College Tragedy*, VIII IJLLR 6981, 6991-6992 (2026).

and secure minimum wages, fair working conditions, and leisure rights under Article 43⁶. The OSH system is realized through the State's factory inspectors and industrial hygiene laboratories. Different acts covering the major areas of OSH legislation include the- Factories Act, 1948, the Mines Act, 1952, the Dock Workers (Health, Safety and Welfare) Act, 1986, the Plantations Labour Act, 1951, the Explosives Act, 1884, the Petroleum Act, 1934, the Insecticides Act, 1968, the Indian Boilers Act, 1923, the Indian Electricity Act, 1910, the Dangerous Machines (Regulation) Act, 1983, the Atomic Energy Act, 1962, and the Radiological Protection Rules, 2004.⁷

The ILO has adopted numerous OSH standards. India has ratified, among others, Conventions Nos. 32, 115, 127, 136 and 174, but has not ratified Convention No. 155 on Occupational Safety and Health, 1981. The OSH Code, 2019 consolidated thirteen central labour laws following the Second National Commission on Labour. Introduced on July 23, 2019, it was referred to the Parliamentary Standing Committee, which submitted its report on February 10, 2020. Although the Code seeks broad coverage, its threshold-based approach excludes many small establishments and parts of the unorganised sector. Economic Census 2016 showed that establishments employing ten or more workers constituted only 1.66% of non-agricultural establishments, about 2% of manufacturing and 1.25% of construction, raising concerns regarding the adequacy of OSH protection in light of the Directive Principles and the National Policy on Safety, Health and Environment at Workplace, 2009.

Scholarly criticism of the Code has focused on drafting ambiguities, extensive delegation to rules, the outdated list of hazardous processes, omission of the Factories Act's Second Schedule on exposure limits, and reduced statutory emphasis on safety committees. Under Section 41G of the Factories Act, safety committees were mandatory in hazardous-process factories, whereas the Code leaves their constitution to government prescription. Section 14 also provides for worker communication of OSH concerns directly or through a safety committee where constituted. Section 84 requires disclosure of hazards in hazardous-process factories. Critics have further suggested incorporating the protection contemplated by Article 13 of ILO

⁶ OCCUPATIONAL SAFETY CONTINUES TO BE IGNORED AS A RIGHT, <https://www.scribd.com/document/255991726/A-STUDY-onOccupational-and-Safety-Health-in-India> (Last visited Oct. 1, 2026).

⁷ Occupational Health and Safety in India, SCRIBD, <https://www.scribd.com/document/255991726/A-STUDY-onOccupational-and-Safety-Health-in-India> (Last visited Oct. 1, 2026).

Convention No. 155, relevant sectoral standards under Conventions Nos. 167 and 176, and protection against emerging biological hazards such as COVID-19.

The Code's accident-reporting and enforcement provisions have also attracted criticism. Section 10 prescribes reporting of specified accidents, while Article 14 of ILO Convention No. 155 provides a broader international standard concerning occupational accidents, diseases and other health injuries. Historical inspection data cited in the literature showed that only about 31% of working factories were inspected, with substantial State-wise variation, inadequate staffing and incomplete databases. These figures should not be treated as current inspection rates. Critics have also called for closer conformity with ILO Convention No. 81, including adequate staffing, unannounced entry and sufficiently frequent inspections.

Historical State-level reforms have also raised OSH concerns, including higher factory thresholds and extensions of working hours to twelve hours daily and seventy-two hours weekly in some States. Contract workers have been identified as particularly vulnerable where higher thresholds reduce regulatory coverage. Historical ASI data showed that contract workers' share in the organised factory sector increased from 13.24% in 1993–94 to 36% in 2016–17. This is a historical trend rather than a current figure. Overall, while the OSH Code consolidates labour legislation and seeks to facilitate business, scholarly concerns regarding coverage, worker participation, inspection, accident reporting, contract labour and working-time flexibility highlight the need for stronger safeguards consistent with constitutional principles and ILO standards.⁸

IV. WORKER WELFARE & EMPLOYMENT CONDITIONS

- i. The Occupational Safety, Health and Working Conditions Code, 2020 promotes formal employment by requiring appointment letters containing details of designation, wages, category, and social security benefits. This improves transparency, reduces employment disputes, and strengthens job security.
- ii. Workers become eligible for annual paid leave after working for 180 days in a calendar year, compared with 240 days under the earlier provision. This reduction supports adequate rest and recovery and may improve worker productivity and job satisfaction.
- iii. The Code provides for a maximum of eight working hours per day and forty-eight hours per week, while allowing flexibility in the distribution of working hours subject to

⁸ OCCUPATIONAL SAFETY CONTINUES TO BE IGNORED AS A RIGHT, <https://www.epw.in/engage/article/occupational-safety-continues-be-ignored-right> (Last visited Oct. 1, 2026).

prescribed conditions. Overtime is payable at twice the normal wage rate, giving workers an opportunity to earn additional income.

- iv. The definition of inter-state migrant workers has been widened to include workers employed directly, through contractors, or those migrating independently for employment. Migrant workers are entitled to benefits such as journey allowance to their native place once every twelve months, portability of specified welfare and ration benefits, and access to a toll-free grievance helpline.
- v. The Ministry of Labour and Employment has also taken steps to develop a national database for unorganised workers, including migrants. This can assist in skill mapping, employment opportunities, delivery of social-security benefits, and better policy formulation.
- vi. The Code provides for victim compensation in serious cases by empowering courts to direct that at least fifty per cent of the fine imposed be paid to a victim suffering serious bodily injury or to the legal heirs in case of death.
- vii. The Code expands protection to audio-visual workers, including digital workers, dubbing artists, and stunt persons. It also expands the definition of working journalists to include electronic and digital media workers, thereby extending applicable workplace safety, health, and welfare protections.

HEALTH, SAFETY AND WELL-BEING

- i. Safety committees are required in specified establishments, including factories employing 500 or more workers, establishments employing 250 or more building and construction workers, and mines employing 100 or more workers. These committees provide workers with representation in safety matters and strengthen workplace safety monitoring.
- ii. The Code seeks to extend occupational health, safety, and welfare protections across sectors rather than limiting them to specific categories previously covered under separate laws. It also provides for annual health check-ups for employees, supporting preventive healthcare, early detection of diseases, improved workforce health, and reduced absenteeism.
- iii. A single National Occupational Safety and Health Advisory Board replaces multiple boards under different laws. Its tripartite composition, including representatives of workers, employers, and State Governments, is intended to assist the Central

Government in developing national standards for occupational safety, health, and working conditions.

- iv. The Code also provides for a Social Security Fund for unorganised workers, into which specified amounts received through penalties and composition of offences may be credited.

INDUSTRY FACILITATION AND EASE OF DOING BUSINESS

The government may extend the Code to establishments employing even one worker where hazardous or life-threatening work is carried out. The Code also introduces single electronic registration, single returns, and all-India licences valid for five years, thereby reducing administrative burdens and promoting ease of doing business. The factory threshold for obtaining a licence has been increased from 10 to 20 workers where power is used and from 20 to 40 workers where power is not used. Time-bound approvals and deemed permissions are intended to reduce delays, encourage industrial expansion, and promote employment. The Inspector-cum-Facilitator system and web-based random inspections seek to make inspections more transparent and compliance-oriented. Third-party audits and certification are also permitted for specified establishments, helping them assess and improve workplace health and safety while reducing unnecessary administrative intervention.

CONTRACT LABOUR

The Code defines circumstances in which contract labour may be employed in core activities, including where such work is ordinarily performed through contractors, does not require full-time workers, or arises from a temporary increase in workload. The threshold for contract-labour provisions is increased from 20 to 50 workers, reducing regulatory burdens for smaller contractors. At the same time, the principal employer remains responsible for providing health, safety, and welfare facilities to contract workers. Where a contractor fails to pay wages, the principal employer must pay the unpaid wages, thereby strengthening protection for contract labour.

COMPOUNDING AND DECRIMINALISATION

The Code permits compounding of certain offences and decriminalises specified violations by replacing imprisonment with monetary penalties. Employers may also receive an improvement notice providing time to comply before further legal action. These measures seek to promote voluntary compliance, reduce litigation, and make enforcement more corrective than punitive.

WOMEN-CENTRIC PROVISIONS

Women are permitted to work in all establishments and in all types of work, subject to safeguards. They may also work at night with their consent, provided the employer ensures appropriate safety, facilities, and transportation. These provisions aim to promote gender equality and increase women's participation in employment. Establishments employing more than 50 workers are required to provide crèche facilities, either separately or through common arrangements. The provision is gender-neutral and supports workers in balancing employment with childcare responsibilities. The Occupational Safety, Health and Working Conditions Code, 2020 seeks to combine worker welfare with industrial growth by strengthening employment formalisation, health and safety protections, social security, migrant-worker welfare, and women's participation while simplifying business compliance. However, its effectiveness ultimately depends on proper implementation, inspection, enforcement, and adequate protection of workers.⁹

V. OCCUPATIONAL DISEASES: THE LESS VISIBLE THREAT

Occupational diseases, unlike workplace accidents, tend to remain undetectable for a long time. All conditions caused by asbestos, silica, cotton dust, carcinogenic chemicals, radiation, and other dangerous substances are induced with the help of prolonged exposure to those materials. Stress, shifts, and environmental conditions may also contribute to the formation of occupational diseases over time. Moreover, the process of identifying the diseases is impeded by moving from employer to employer. Thus, the absence of workplace accidents does not mean that the workplace is safe. The material also indicates that in India quite a few cases of occupational diseases remain unrecognized, as for example, silicosis or byssinosis may be diagnosed incorrectly as some common respiratory disease. The situation is aggravated by a shortage of properly trained professionals in the field of occupational medicine, industrial hygiene, and safety. In India, under-reporting of occupational ailments has been identified by the International Labour Organization as a serious issue, which has led to the demand for a significant improvement in OSH data systems, occupational-disease recognition and diagnosis, labour inspection, and worker protection mechanisms in informal rural and agricultural settings.¹⁰

⁹ PIB, Occupational Safety, Health and Working Conditions (OSH) Code, 2020, Ministry of Information and <https://www.pib.gov.in/FactsheetDetails.aspx?Id=150475®=48&lang=2> (Last visited Oct. 02, 2026).

¹⁰Occupational Health and Safety in India, SCRIBD, <https://www.scribd.com/document/255991726/A-STUDY-onOccupational-and-Safety-Health-in-India> (Last visited Oct. 3, 2026).

VI. MAJOR WORKPLACE-SAFETY INCIDENTS: FROM BHOPAL TO R.G. KAR

The history of occupational safety in India demonstrates the consequences of inadequate safety systems. The Bhopal Gas Tragedy of 1984 remains one of the most significant industrial disasters in India's history. The release of toxic gas from the Union Carbide pesticide plant resulted in large-scale deaths, injuries, and long-term health consequences. The disaster brought national and international attention to industrial safety, hazardous substances, corporate responsibility, emergency preparedness, and the need for effective regulation. The ILO has described Bhopal as one of the world's worst chemical disasters and has used its legacy to emphasise the importance of a strong safety culture.

The recent R.G. Kar Medical College and Hospital incident in Kolkata demonstrates that the meaning of occupational safety has expanded beyond traditional industrial hazards. The incident generated nationwide concern regarding the safety of healthcare professionals, particularly women, and raised questions concerning institutional security, workplace violence, gender-based safety, accountability, and the psychological well-being of workers. In response, the Supreme Court of India considered the safety of medical professionals and constituted a National Task Force in the proceedings concerning the incident. The R.G. Kar episode is particularly relevant to OSH because it demonstrates that a workplace can be unsafe even when the principal risk is not a machine, chemical, or industrial process. Violence, harassment, inadequate security, institutional negligence, and fear during night shifts can also constitute serious workplace risks. The supplied material emphasises that workers who feel unsafe may experience emotional exhaustion, fear, helplessness, and loss of confidence in the institutions responsible for their protection.¹¹

The incident also demonstrates the importance of institutional accountability. Safety cannot depend solely upon individual employees taking precautions. Organisations must identify foreseeable risks, maintain appropriate security systems, establish effective complaint mechanisms, conduct regular safety assessments, and respond promptly to concerns. A culture in which workers remain silent because they fear professional consequences can allow unsafe practices to become normalised.

¹¹ Jaya Singh, *Workplace Safety Failures in India: A Case Study of the R.G. Kar Medical College tragedy*, VIII IJLLR 6981, 6986-6993 (2026).

VII. TECHNOLOGY, ACCOUNTABILITY AND WORKPLACE CULTURE

Technology can enhance workplace safety through CCTV, biometric controls, emergency alerts, panic buttons and GPS systems, but must complement human responsibility and respect privacy and dignity. A strong safety culture requires management commitment, worker participation, safe reporting, audits and effective complaint mechanisms. India should strengthen preventive occupational health through risk assessments, worker training, reliable data, research, healthcare integration and protection of vulnerable workers, with sector-specific safeguards for risks such as infections, injuries, ergonomic hazards, violence and stress. Effective government inspection, enforcement, surveillance and reporting, supported by trained professionals and consistent with ILO standards, are essential for meaningful workplace protection.¹²

VIII. CONCLUSION

Occupational Safety and Health (OSH) in India is an overall concept related to the objective of protecting workers from any dangerous aspects of their work. OSH includes workplace accidents and occupational diseases but also considers physical conditions, mental health issues, ergonomics, violence at work, gender protection, accountability of organizations, and workplace dignity. The Bhopal tragedy can serve as a reminder of what can happen when safety regulations are absent, while the incident at R.G. Kar shows that workplace safety should also involve violence prevention, security, accountability of organizations, and ensuring psychological safety of workers.

The legislation has developed considerably, mainly through the adoption of the Occupational Safety, Health, and Working Conditions Code of 2020, yet the law alone cannot ensure efficient OSH. To achieve success in the OSH area, constant implementation is needed. The ultimate objective should be simple: no worker should have to choose between earning a livelihood and protecting his or her health, safety, dignity, and life.

¹² Jaya Singh, *Workplace Safety Failures in India: A Case Study of the R.G. Kar Medical College tragedy*, VIII IJLLR 6981, 6991-6993 (2026).