

Original Article

Legal Protection of Workers' Rights in Indonesia's Tobacco Industry

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Abstract

Workers in the tobacco industry face significant legal and occupational safety challenges due to continuous exposure to hazardous chemicals, tobacco dust, and work-related diseases that often remain undetected at early stages. In Indonesia, existing occupational safety and health regulations adopt a general regulatory approach, lack sector-specific standards, and rely on weak supervisory and enforcement mechanisms. This study aims to formulate a sectoral technical regulatory model that specifically governs the control of tobacco dust and chemical exposure in the production process. It also seeks to design an integrated supervisory framework involving multiple institutional actors to enhance accountability and enforcement effectiveness, and to develop a legal culture approach that promotes sustained occupational safety awareness within the cigarette industry. This research applies a normative legal method using statutory and conceptual approaches to analyze the adequacy of the current regulatory framework. The findings demonstrate, first, that Indonesia's legal protection for tobacco industry workers remains inadequate due to general occupational safety and health regulations, limited supervision, and low levels of legal awareness among workers. Second, comparative analysis shows that countries such as Singapore, Germany, and Japan ensure stronger worker protection through binding sector-specific regulations and effective enforcement systems. Third, this study finds that effective protection for tobacco industry workers requires the adoption of sector-specific occupational safety and health standards, the implementation of integrated multi-actor supervision, and the strengthening of safety culture through structured training programs and secure reporting mechanisms. This study concludes that comprehensive regulatory reform is necessary to ensure effective legal protection and occupational health security in the tobacco industry.

Keywords: Health; Industry; Legal Protection; Tobacco; Workers;

Introduction

The tobacco industry is one of the strategic sectors in Indonesia's economy because it has a significant contribution to national development.¹ Through state revenue from tobacco excise, this sector becomes one of the main sources of non-oil and gas income that supports various government programs, such as healthcare financing, infrastructure development, and regional economic growth.² The existence of this industry also drives regional economic development, especially in production centers such as Central Java, East Java, and West Nusa Tenggara, where the economic activities of local communities largely depend on tobacco processing. Therefore, the tobacco industry not only functions as a contributor to state revenue but also as a sector that supports economic stability and social welfare in various



¹ Clark C. Matheos and others, 'Cost-Effectiveness Analysis of Tobacco Control Strategies in Indonesia', *Value in Health Regional Issues*, 33 (2023), 65–75 <<https://doi.org/10.1016/j.vhri.2022.08.013>>.

² Veni Aprisal, Putri Wulan Nahri and Risty Rahma Azzahra, 'The Dynamics of Tobacco Commodity Governance on Farmer Welfare and Economic Resilience in the Temanggung Region', *Indonesian Interdisciplinary Journal of Sharia Economics*, 8.3 (2025), 10238–51 <<https://doi.org/10.31538/ijse.v8i3.8244>>.



regions of Indonesia.³ According to data from Statistics Indonesia in 2024, the tobacco cultivation area reaches 249,500 thousand – 252,917 thousand hectare.

Table 1. Production and Land Area

Year	Production (Ton)	Land Area (Ha)
2020	261.439	252.937
2021	240.299	210.211
2022	225.700	206.914
2023	215.140	200.919
2024	250.000	249.500

Source: Badan Pusat Statistika, 2024.

The high level of tobacco production in Indonesia reflects the substantial economic potential generated by this sector. The national average tobacco production is around 180 thousand tons per year, with the capacity to absorb 5.9 million workers, 4.2 million employed in the manufacturing and distribution sectors, and 1.7 million in the plantation sector.⁴ These figures emphasize that the tobacco industry plays a vital role in creating employment opportunities and supporting the livelihoods of communities across various regions. However, this strategic position has not been fully accompanied by adequate protection of workers' rights. Disparities in wages, working hours, termination of employment, as well as occupational health and safety are still common, indicating weak implementation of labor protection within this sector.⁵

The influence of globalization today greatly supports tobacco producers or companies to grow rapidly, leading them to compete in increasing their production levels to meet market demand.⁶ For this purpose, employers often justify any means to achieve economic goals and gain personal or collective profit, even to the extent of neglecting workers' rights. This includes practices such as giving low wages or other material incentives to push workers to maintain high productivity, so that company output increases and maintains quality, supported by clear and mutually beneficial legal regulations.⁷ Aside from wages, another frequently overlooked right concerns occupational health and safety.⁸ The labor intensive nature of the cigarette industry makes it vulnerable to work-related illnesses, as workers perform tasks closely associated with various hazards. Every day, workers in the cigarette industry come into direct contact with sources of danger, particularly the raw materials used, such as tobacco leaves.⁹

The International Labor Organization (ILO) reports approximately 340 million occupational accidents and 160 million cases of work-related illnesses worldwide each year.

³ M. Arif Budiman Hakim, Drajat Tri Kartono and Eny Lestari, 'Social Construction of Parents Against Child Labor in Tobacco Farming in Wakan Village, East Lombok Regency', *The Innovation of Social Studies Journal*, 7.1 (2025), 95 <<https://doi.org/10.20527/issj.v7i1.15234>>.

⁴ Bambang Prasetya and others, 'Tobacco's Social and Economic Issues in Indonesia from 1992 to 2023 – a Review to Address Product Development', *International Journal of Innovative Research and Scientific Studies*, 8.1 (2025), 80–102 <<https://doi.org/10.53894/ijirss.v8i1.5128>>.

⁵ Salilorn Thongmeensuk, 'Rethinking Copyright Exceptions in the Era of Generative AI: Balancing Innovation and Intellectual Property Protection', *The Journal of World Intellectual Property*, 27.2 (2024), 278–95 <<https://doi.org/10.1111/jwip.12301>>.

⁶ Justine Kyove and others, 'Globalization Impact on Multinational Enterprises', *World*, 2.2 (2021), 216–30 <<https://doi.org/10.3390/world2020014>>.

⁷ Jeff Muldoon and Derek K. Yonai, 'A Wrong but Seductive Idea: Public Choice and the Entrepreneurial State', *Journal of the International Council for Small Business*, 4.4 (2023), 351–61 <<https://doi.org/10.1080/26437015.2023.2182730>>.

⁸ Meqbel M. Aliedan and others, 'Influences of Distributive Injustice and Job Insecurity Amid COVID-19 on Unethical Pro-Organisational Behaviour: Mediating Role of Employee Turnover Intention', *International Journal of Environmental Research and Public Health*, 19.12 (2022), 7040 <<https://doi.org/10.3390/ijerph19127040>>.

⁹ Christianah Pelumi Efunniyi and others, 'Strengthening Corporate Governance and Financial Compliance: Enhancing Accountability and Transparency', *Finance & Accounting Research Journal*, 6.8 (2024), 1597–1616 <<https://doi.org/10.51594/farj.v6i8.1509>>.



Occupational health is increasingly recognized as a crucial global public health challenge. OHRA has significantly advanced our understanding of the work environment and its contribution to sustainability assessments, highlighting its undeniable importance.¹⁰ Occupational health and safety are essential elements in the workplace that must be ensured to maintain and protect workers' physical and mental integrity, thereby improving performance and productivity. Legal protection is also necessary to fulfill the company's obligation to conduct periodic health examinations, and employers are required to maintain medical records for each employee. Special examinations are also needed when there are indications of work-related illnesses, especially in the labor-intensive cigarette industry. Legal protection serves as an effort to safeguard legal subjects through preventive and repressive measures, whether oral or written.

The protection of workers' rights across industries has always been an active subject of discussion among international organizations, labor unions, and employers.¹¹ This issue has become increasingly important in line with rising global awareness of fair labor standards and human rights principles within industrial relations.¹² Organizations such as the International Labour Organization (ILO) consistently emphasize the importance of safeguarding fundamental workers' rights, including the right to safe working conditions, occupational health and safety, social security, and harmonious industrial relations. Fulfilling these rights is considered a foundation that not only ensures workers' welfare but also supports broader economic sustainability and social stability.¹³ In the context of Indonesia, the commitment to protecting workers' rights has been demonstrated through the ratification of various ILO conventions and the development of numerous national regulations governing employment relations.¹⁴

Indonesia has several labor regulations that govern legal protection for workers. For example, Article 27 paragraph (2) of the Constitution of the Republic of Indonesia states that every person has the right to be protected and to obtain comfort in their work. This aims to protect workers and their families by ensuring equal treatment without discrimination, while considering the evolution of business industries and the needs of entrepreneurs and their business partners.¹⁵ The 1945 Constitution is further elaborated in Law Number 13 of 2013 concerning Manpower. The Manpower Law stipulates that every worker/laborer is entitled to: (1) protection of occupational safety and health; (2) protection from immoral acts and harassment; and (3) treatment that respects human dignity and religious values. In addition, to safeguard workers' safety and achieve optimal productivity, an occupational safety and health program must be implemented. Law Number 1 of 1970

¹⁰ Rida Naseer and others, 'Occupational Health and Safety Risk Assessment of a Tobacco Manufacturing Industry', *Pakistan Journal of Humanities and Social Sciences*, 13.1 (2025), 415–25 <<https://doi.org/10.52131/pjhss.2025.v13i1.2715>>.

¹¹ Mykola Inshyn and others, 'Protection of Workers' Rights in the Processing Industry', *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 13.3 (2021) <[https://doi.org/10.1061/\(ASCE\)LA.1943-4170.0000462](https://doi.org/10.1061/(ASCE)LA.1943-4170.0000462)>.

¹² C. Brugere and others, 'Humanizing Aquaculture Development: Putting Social and Human Concerns at the Center of Future Aquaculture Development', *Journal of the World Aquaculture Society*, 54.2 (2023), 482–526 <<https://doi.org/10.1111/jwas.12959>>.

¹³ Vicente Silva and Huw Thomas, 'Fields, Frames and Fundamental Rights: The Campaign to Elevate Occupational Safety and Health at the International Labour Organization (ILO)', *Work, Employment and Society*, 39.4 (2025), 904–26 <<https://doi.org/10.1177/09500170241309584>>.

¹⁴ Wandi Wandi, 'The Ideal Arrangement of Legal Protection for Informal Sector Workers in the Perspective of the Principles of Legal Certainty, Justice and Expediency', *International Journal of Law Reconstruction*, 7.2 (2023), 141 <<https://doi.org/10.26532/ijlr.v7i2.32321>>.

¹⁵ M. Iram Alfani H and Sunarno, 'Comparison of Legal Protection of Labor in Indonesia and Pakistan', *Jurnal Suara Hukum*, 6.1 (2024), 187–205 <<https://doi.org/10.26740/jsh.v6n1.p187-205>>.



concerning Occupational Safety requires labor-intensive cigarette industry management to conduct regular health examinations for workers.¹⁶

However, in practice, the implementation of these protections still faces challenges, especially in sectors with high levels of informality, such as the tobacco industry.¹⁷ Several cases illustrate this issue. *First*, in a cigarette company in Temanggung Regency, there is a lack of legal protection regarding occupational health and safety, including insufficient protective work clothing, which increases the risk of workplace accidents. *Second*, a cigarette company in Nganjuk Regency, one of Indonesia's tobacco suppliers, still falls short in protecting workers' rights, particularly in terms of health and safety at work. Based on these cases, factory workers in the cigarette industry are at high risk of exposure to the negative impacts of their work. Therefore, periodic screening is needed to detect cases such as hypertension, diabetes mellitus, tuberculosis (TB), and HIV. The importance of regular screening for risks of non-communicable diseases as well as examinations for communicable diseases aims to support public health efforts oriented toward preventive legal protection in controlling the number of at-risk disease cases. Early detection enables timely treatment and reduces mortality rates. Another measure that companies can take is providing vitamins distributed to workers in the factory.¹⁸

Unlike in Indonesia, OSH regulations in Germany, Singapore, and Japan are governed with strict and highly specific standards, supported by strong enforcement mechanisms. These three countries place occupational safety and health as a top priority, requiring every company to comply with technical standards, conduct regular audits, and provide maximum protection for workers. This creates a work environment that is significantly safer, more closely monitored, and prevention-oriented, in contrast to Indonesia, where OSH regulations remain general, supervision is limited, and implementation is not yet optimal. In addition, these countries have more established OSH education systems, which enhance workers' awareness and compliance with safety procedures. Their governments also impose firm and consistent sanctions on companies that violate safety standards. Thus, the effectiveness of OSH protection in Germany, Singapore, and Japan is much higher because it is supported by comprehensive regulations, strong oversight, and a deeply rooted safety culture.¹⁹

Previous studies have examined various aspects of legal protection for workers, both in the context of occupational safety and health (OSH) and industrial relations more broadly. Several studies highlight the weak implementation of OSH regulations in Indonesia, particularly in labor-intensive sectors such as the tobacco industry, which results in a high risk of occupational diseases. Research by Muhammad Rizki Ashari (2022) shows that structured OSH strategies, such as continuous safety education, ergonomic adjustments to the workplace, and the integration of mental health, significantly improve compliance with safety regulations and reduce occupational health risks. However, this study does not focus on ideal protection strategies specifically for workers in the tobacco industry.²⁰ Research by

¹⁶ Yifei Wang and others, 'Global Health Burden and Inequality Patterns of Occupational Noise Exposure from 1990 to 2019', *Scientific Reports*, 15.1 (2025), 24844 <<https://doi.org/10.1038/s41598-025-09575-x>>.

¹⁷ Faradj Koliev, 'Promoting International Labour Standards: The ILO and National Labour Regulations', *The British Journal of Politics and International Relations*, 24.2 (2022), 361–80 <<https://doi.org/10.1177/13691481211027513>>.

¹⁸ H. W. Gammanpila, M. A. Nethmini Sashika and S. V. G. N. Priyadarshani, 'Advancing Horticultural Crop Loss Reduction Through Robotic and AI Technologies: Innovations, Applications, and Practical Implications', ed. by Xinqing Xiao, *Advances in Agriculture*, 2024.1 (2024) <<https://doi.org/10.1155/2024/2472111>>.

¹⁹ Josué Briones-Bitar and others, 'A Systematic Review of Occupational Health and Safety to Prevent Fall Accidents in Civil Works', *International Journal of Safety and Security Engineering*, 15.4 (2025), 819–33 <<https://doi.org/10.18280/ijssse.150418>>.

²⁰ Muhammad Rizki Ashari, 'Occupational Disease Prevention Strategies through OHS Interventions: Global Evaluation and Challenges', *Journal of Health Literacy and Qualitative Research*, 2.2 (2022), 56–70 <<https://doi.org/10.61194/jhlqr.v2i2.531>>.



Marzena Malinska et al. (2021) indicates the need to develop health programs and increase workers' awareness of workstation ergonomics and work organization. Nevertheless, the study remains general and does not refer to legal protection for workers in the tobacco industry.²¹ Research by Rida Naseer et al. (2025) emphasizes the importance of implementing effective occupational health policies, improving worker training, and conducting routine monitoring to reduce risks and ensure a safer work environment. However, this study has not evaluated existing regulations related to worker protection in the tobacco sector.²² Research by Achugatla Kesav Kumar et al. (2023) shows that workers in the tobacco industry are highly vulnerable to diseases due to exposure to chemical substances, nicotine absorption, and skin disorders. To prevent occupational health hazards, the development of appropriate and cost-effective interventions suitable for agricultural workers is needed, along with increasing awareness of potential risks. However, the study does not propose adequate protection strategies.²³ Research by Kamila Fialkowska et al. (2021) highlights the importance of occupational health and safety for workers. Yet, this study focuses on OSH for agricultural workers in general and does not specifically address the tobacco industry.²⁴

This study fills this gap by offering a more comprehensive and equitable policy reform for tobacco industry workers. The urgency of this research lies in three major threats arising from weak occupational safety and health regulations, the low effectiveness of labor inspection, and the high risk of occupational diseases that often go undetected at an early stage. Considering these issues, this study introduces scientific novelty through three main contributions. *First*, it formulates a sector-specific technical regulatory model that specifically governs the control of tobacco dust exposure and chemical substances in the production process. *Second*, it develops an integrated supervisory structure involving multiple actors to enhance accountability and the effectiveness of law enforcement. *Third*, it proposes a legal culture approach oriented toward fostering continuous safety awareness within the cigarette industry. Furthermore, this study is directed to answer three central research questions. *First*, how effective is the current legal protection for tobacco industry workers within Indonesia's labor law system? *Second*, how do advanced countries such as Germany, Singapore, and Japan compare in providing safety and health protection for workers in high-risk industries? *Third*, how can an ideal and equitable regulatory model be formulated to comprehensively protect workers in the tobacco industry?

Method

This research uses normative legal research, utilising secondary data as the primary source for analysis.²⁵ This research uses a legislative approach to examine labour laws and occupational health and safety laws. A conceptual approach is used to review doctrines and theoretical ideas in order to re-examine legal protection for tobacco industry workers, particularly in terms of occupational health and safety. The data sources consist of primary legal materials such as national legislation, relevant international conventions or regulations,

²¹ Marzena Malinska, Joanna Bugajska and Paweł Bartuż, 'Occupational and Non-Occupational Risk Factors for Neck and Lower Back Pain among Computer Workers: A Cross-Sectional Study', *International Journal of Occupational Safety and Ergonomics*, 27.4 (2021), 1108–15 <<https://doi.org/10.1080/10803548.2021.1899650>>.

²² Naseer and others.

²³ Achugatla Kesav Kumar and others, 'Assessments of Occupational Health Hazards of Tobacco Farmworkers in Andhra Pradesh, India', *Toxicology and Environmental Health Sciences*, 15.4 (2023), 335–44 <<https://doi.org/10.1007/s13530-023-00186-5>>.

²⁴ Kamila Fialkowska and Kamil Matuszczyk, 'Safe and Fruitful? Structural Vulnerabilities in the Experience of Seasonal Migrant Workers in Agriculture in Germany and Poland', *Safety Science*, 139 (2021), 105275 <<https://doi.org/10.1016/j.ssci.2021.105275>>.

²⁵ Anila Robbani, Raffy Arnanda Faturrohman and Ahmad Hananul Amin, 'Optimization of Income Tax Revenue in Land and Building Rights Transfer Transactions', *Journal of Justice Dialectical*, 2.1 (2024), 28–42 <<https://doi.org/10.70720/jjd.v2i2.38>>.



as well as secondary legal materials including scientific journals, books, and other research findings that support the analysis.²⁶

Results and Discussions

Effectiveness of Legal Protection for the Rights of Workers in the Tobacco Industry in Indonesia

The effectiveness of legal protection for workers' rights in the tobacco industry does not depend solely on the existence of regulations governing employment relations, but also on the extent to which the legal system can function comprehensively in upholding justice.²⁷ From Lawrence M. Friedman's perspective, the effectiveness of a legal system is influenced by three main components: legal substance, legal structure, and legal culture.²⁸ These three components are interrelated and determine whether the prevailing laws can truly provide real, rather than merely normative, protection for workers' rights.²⁹

First, weaknesses in the legal substance. Welfare is a fundamental pillar of life for workers and laborers and must be ensured. Normatively, Indonesia's labor regulations already govern basic workers' rights, such as occupational health and safety, and social security.³⁰ However, the existing legal substance has not fully supported the improvement of workers' welfare, particularly in the tobacco sector, which involves many informal workers and women workers.³¹ Welfare should be a primary pillar in the legal protection system because workers and laborers are the main subjects of economic development whose livelihoods must be adequately guaranteed.³² Yet in practice, many legal provisions remain general in nature and do not accommodate the specific characteristics and occupational risks present in the tobacco industry.³³ Indonesia has provided a relatively comprehensive legal framework to protect workers, ranging from Law Number 13 of 2003 on Manpower, Law Number 6 of 2023 on Job Creation and its derivative regulations, to rules on minimum wages, social security, and occupational safety and health (OSH). Nevertheless, this legal substance has not fully succeeded in creating adequate protection for workers in the tobacco industry. Existing regulations function more as general norms and therefore do not sufficiently account for the unique nature of work in the tobacco sector, which carries distinct vulnerabilities and risks.³⁴

²⁶ Ni Komang Sutrisni and others, 'The Compliance of Governance on Family Data Protection Regulation', *Journal of Human Rights, Culture and Legal System*, 4.3 (2024), 706–41 <<https://doi.org/10.53955/jhcls.v4i3.293>>.

²⁷ Marc-Antoin Hennebert, Isabelle Roberge-Maltais and Urwana Coiquaud, 'The Effectiveness of International Framework Agreements as a Tool for the Protection of Workers' Rights: A Metasynthesis', *Industrial Relations Journal*, 54.3 (2023), 242–60 <<https://doi.org/10.1111/irj.12398>>.

²⁸ Henny Saida Flora, Mac Thi Hoai Thuong and Ratna Deliana Erawati, 'The Orientation and Implications of New Criminal Code: An Analysis of Lawrence Friedman's Legal System', *Jurnal IUS Kajian Hukum Dan Keadilan*, 11.1 (2023), 113–25 <<https://doi.org/10.29303/ius.v11i1.1169>>.

²⁹ David Hess, 'The Management and Oversight of Human Rights Due Diligence', *American Business Law Journal*, 58.4 (2021), 751–98 <<https://doi.org/10.1111/ablj.12197>>.

³⁰ Adnan Hamid, M.Rizky Aldila and Adila Meytiara Intan, 'The Urgency of Labor Law for Informal Sector Workers in the Welfare State Concept: An Evidence in Indonesia', *International Journal of Research in Business and Social Science* (2147-4478), 11.6 (2022), 528–41 <<https://doi.org/10.20525/ijrbs.v11i6.2036>>.

³¹ Sangeeta Mangubhai and others, 'Gender-based Violence: Relevance for Fisheries Practitioners', *Fish and Fisheries*, 24.4 (2023), 582–94 <<https://doi.org/10.1111/faf.12747>>.

³² Aktieva Tri Tjitrawati and Mochamad Kevin Romadhona, 'Living beyond Borders: The International Legal Framework to Protecting Rights to Health of Indonesian Illegal Migrant Workers in Malaysia', *International Journal of Migration, Health and Social Care*, 20.2 (2024), 227–45 <<https://doi.org/10.1108/IJMHSC-04-2023-0038>>.

³³ Evripidis P. Kechagias and others, 'Digital Transformation of the Maritime Industry: A Cybersecurity Systemic Approach', *International Journal of Critical Infrastructure Protection*, 37 (2022), 100526 <<https://doi.org/10.1016/j.ijcip.2022.100526>>.

³⁴ Bonnie Rogers and Anita L. Schill, 'Ethics and Total Worker Health®: Constructs for Ethical Decision-Making and Competencies for Professional Practice', *International Journal of Environmental Research and Public Health*, 18.19 (2021), 10030 <<https://doi.org/10.3390/ijerph181910030>>.



The tobacco industry has highly labor-intensive work characteristics, with work patterns that are often informal and not supported by clear employment contracts,³⁵ resulting in a lack of protection particularly in occupational health and safety. Workers in the tobacco sector face specific health risks, such as exposure to nicotine, clove dust, and the chemical aromas used in the processing stage. The existing occupational health and safety regulations are general in nature and do not specifically regulate the biological and chemical risks found only in cigarette and tobacco production lines. This causes many small companies to fail to provide adequate personal protective equipment, proper ventilation, or other workplace health facilities. When regulations do not provide specific provisions, their implementation tends to be neglected, especially in home-based industries that are not closely monitored.³⁶

Weaknesses in the legal substance can also be seen from the minimal regulations concerning the protection of women workers.³⁷ The tobacco industry is known for employing many women, especially in the hand-rolled kretek process (manually rolling cigarettes). However, there are no specific provisions that provide additional protection regarding workload, working hours, lactation facilities, or reproductive protection for female workers.³⁸ In fact, ergonomic risks and exposure to raw tobacco materials can affect reproductive health, particularly for women who are pregnant or breastfeeding. The lack of regulatory sensitivity to the specific needs of female workers demonstrates that the existing legal substance does not sufficiently support the most vulnerable group in this sector.³⁹

In addition, the absence of labor regulations specifically tailored to the tobacco industry reflects a lack of full state presence in protecting workers within an economic sector that has historically contributed significantly to state revenue, yet provides minimal protection for its labor force.⁴⁰ This is evident from the limited regulation concerning social security standards, long-term protection against health risks, and formal monitoring mechanisms for small-scale production units.⁴¹ Thus, although labor regulations formally exist, in terms of substance, these rules have not been able to address the real needs of workers in the tobacco industry.⁴² At this point, it can be emphasized that the lack of comprehensive legal substance results in legal protections for tobacco industry workers being largely formalistic and based on general norms that are not specific. In fact, welfare is the main pillar of labor protection. Workers and laborers are the primary subjects of economic and social development; therefore, the fulfillment of rights to health insurance and other forms of protection is both a moral and constitutional obligation. As long as the legal substance remains general and not adaptive to

³⁵ Alejandro Godino, Oscar Molina and Joel Martí, 'Coffee and Cigarettes in Industrial Relations: A Comparative Network Analysis of the Role of Informality', *Journal of Industrial Relations*, 65.5 (2023), 663–85 <<https://doi.org/10.1177/00221856231194760>>.

³⁶ Shanmugam M Sakthisankaran, Devaraj Sakthipriya and Mahalingam Swamivelmanickam, 'Health Risks Associated with Tobacco Consumption in Humans: An Overview', *Journal of Drug Delivery and Therapeutics*, 14.5 (2024), 163–73 <<https://doi.org/10.22270/jddt.v14i5.6523>>.

³⁷ Funmbi T Okoya and others, 'Weak Regulations Threaten the Safety of Consumers from Harmful Weight-Loss Supplements Globally: Results from a Pilot Global Policy Scan', *Public Health Nutrition*, 26.9 (2023), 1917–24 <<https://doi.org/10.1017/S1368980023000708>>.

³⁸ Amriyati Amriyati and others, 'Women Worker Protection: A Systematic Review On Maternity Protection In Indonesia', *Devotion: Journal of Research and Community Service*, 4.2 (2023), 392–401 <<https://doi.org/10.36418/devotion.v4i2.394>>.

³⁹ Nazanin Izadi and others, 'Reproductive Outcomes among Female Health Care Workers', *BMC Women's Health*, 24.1 (2024), 44 <<https://doi.org/10.1186/s12905-024-02890-x>>.

⁴⁰ Rachel Ann Barry and others, 'Advancing Whole-of-Government Approaches to Tobacco Control: Article 5.3 and the Challenge of Policy Coordination in Bangladesh, Ethiopia, India and Uganda', *Tobacco Control*, 31.Suppl 1 (2022), s46–52 <<https://doi.org/10.1136/tobaccocontrol-2021-057154>>.

⁴¹ Jagruti Dhande, Prasad Rane and Himanshu Dhande, 'Influence of Project Risk Management in Micro and Small-Scale Industries on Workers' Occupational Health to Enhance Productivity: An Ergonomic Approach', *International Journal of Industrial Engineering and Management*, 16.1 (2025), 52–63 <<https://doi.org/10.24867/IJIEM-370>>.

⁴² Eva Achjani Zulfa and others, 'Regulation and Law Enforcement on the Protection of Halal Products in Indonesia', *Cogent Social Sciences*, 9.2 (2023) <<https://doi.org/10.1080/23311886.2023.2273344>>.



the characteristics of the tobacco industry, the legal protections provided cannot yet guarantee a decent quality of life for workers, nor do they reflect the principles of justice as idealized in labor law concepts.

Second, weaknesses in the legal structure. The legal structure includes institutions, authorities, and mechanisms responsible for enforcing labor regulations.⁴³ In the context of protecting workers' rights in the tobacco industry, the legal structure still faces several fundamental obstacles that hinder the effective implementation of regulations. One of the main issues is the limited number of labor inspectors.⁴⁴ In many regions—especially in major cigarette-producing areas such as East Java, Central Java, and parts of East Nusa Tenggara—the number of inspectors is far from proportional to the number of cigarette companies, particularly small- and medium-scale enterprises. This results in suboptimal monitoring, with many companies operating without regular supervision. The lack of adequate oversight leads to low compliance among employers with social security requirements and workplace safety standards. Some cigarette companies are not even officially registered with the Department of Manpower and Transmigration, causing them to escape inspection, guidance, and law enforcement processes. This situation creates opportunities for violations of workers' rights, including the absence of safety equipment in tobacco processing activities that involve high health risks.⁴⁵

On the other hand, the enforcement of labor laws against violations is often ineffective due to weak sanctions. Many cases end only with guidance without any follow-up in the form of administrative or criminal actions as stipulated by law.⁴⁶ This indicates that the legal structure lacks strong coercive power to ensure compliance from companies. The low level of law enforcement also reflects poor coordination between the central and regional governments, including in reporting, data collection, and follow-up on inspection results.⁴⁷ Under conditions where state apparatuses and mechanisms are weak, the role of labor unions becomes crucial as an additional monitoring network. Labor unions function as social control agents that can advocate for workers' interests, report violations, and push for intervention by the Department of Manpower and Transmigration.⁴⁸ Article 67 paragraph (2) of Law Number 13 of 2003 provides the basis that the Department of Manpower and Transmigration may summon and guide companies based on reports or complaints.⁴⁹ However, in practice, the role of labor unions has not been optimal. Many workers in the tobacco industry are not unionized due to informal employment status, fear of company intimidation, or limited understanding of the right to unionize. This condition deprives workers of a safe channel to voice complaints and fight for their rights. Thus, the weakness of the legal structure lies not only in the shortage of inspectors but also in weak institutional

⁴³ Shihan Li and others, 'Green Policy and Corporate Social Responsibility: Empirical Analysis of the Green Credit Guidelines in China', *Journal of Asian Economics*, 82 (2022), 101531 <<https://doi.org/10.1016/j.asieco.2022.101531>>.

⁴⁴ Felix Kwashie Madilo, Angela Parry-Hanson Kunadu and Kwaku Tano-Debrah, 'Challenges with Food Safety Adoption: A Review', *Journal of Food Safety*, 44.1 (2024) <<https://doi.org/10.1111/jfs.13099>>.

⁴⁵ M. Afif Khoiruddin and others, 'Informality and Multidimensional Child Poverty: Evidence from Urban and Rural Indonesia', *Development Studies Research*, 12.1 (2025) <<https://doi.org/10.1080/21665095.2025.2533852>>.

⁴⁶ Mohamad Nasir, Laurens Bakker and Toon van Meijl, 'Environmental Management of Coal Mining Areas in Indonesia: The Complexity of Supervision', *Society & Natural Resources*, 36.5 (2023), 534–53 <<https://doi.org/10.1080/08941920.2023.2180818>>.

⁴⁷ Xuesong Qian, Hai Ding and Zifang Ding, 'Governmental Inspection and Firm Environmental Protection Expenditure: Evidence from China', *Economic Modelling*, 123 (2023), 106284 <<https://doi.org/10.1016/j.econmod.2023.106284>>.

⁴⁸ Sabina Lawreniuk, 'Zombie Resistance: Reanimated Labour Struggles and the Legal Geographies of Authoritarian Neoliberalism in Cambodia', *Transactions of the Institute of British Geographers*, 48.1 (2023), 39–55 <<https://doi.org/10.1111/tran.12564>>.

⁴⁹ Oktafina Djaena, Christina Samangun and Carina Budi Siswani, 'Legal Review Analysis of the Protection of Workers' Wage Rights in the MSME Sector in Manokwari', *Golden Ratio of Law and Social Policy Review*, 5.1 (2025), 155–67 <<https://doi.org/10.52970/grlspr.v5i1.1560>>.



capacity, low inter-agency coordination, ineffective sanction systems, and limited worker participation in social control mechanisms. All these factors make legal protection for workers in the tobacco industry unable to produce significant results in daily practice.⁵⁰

Third, weaknesses in legal culture. Legal culture is a crucial factor in determining the effectiveness of a legal system because it relates to the values, perceptions, and level of legal awareness within society.⁵¹ In the context of the tobacco industry in Indonesia, legal culture still exhibits many weaknesses, which ultimately affect the effectiveness of workers' rights protection, even though normative regulations are in place.⁵² Among workers, low levels of legal literacy are a fundamental problem. Many tobacco workers neglect their safety and health in the face of exposure to tobacco substances due to the lack of personal protective equipment. Limited education, informal employment status, and high economic dependence make workers reluctant to claim their rights or report issues to authorities. This condition shows that the legal culture among workers is not based on rights-consciousness, but rather on passive compliance with long-established production habits.⁵³ Meanwhile, on the employers' side, legal culture is often dominated by a focus on production cost efficiency. Cigarette companies, particularly small and medium-sized enterprises, often view fulfilling wage obligations, providing social security, or meeting occupational safety standards as operational burdens that reduce profit. Because of the perception that "workers are easily replaceable" or "the work does not require high skills," employers frequently ignore workers' normative rights. This culture demonstrates that legal compliance has not developed as a moral responsibility or social necessity, but rather as a mere administrative obligation that tends to be neglected when oversight is weak.⁵⁴

The legal culture of local governments also affects the quality of worker protection. In several regions, the tobacco industry is labor-intensive and absorbs thousands of workers. This situation often leads local governments to adopt a compromising stance toward company violations to maintain regional economic stability. Such an approach creates a permissive culture, where labor violations are considered "understandable" if companies continue to operate and provide employment. Overly compromising policies can weaken efforts to build a fair labor system. Beyond issues of values and legal attitudes, certain regulations also reflect a legal culture that is insufficiently supportive of workers' welfare.⁵⁵ Regulations often remain as normative texts without consistent implementation. To achieve equitable protection of workers' rights, changes in legal culture are necessary, not only through regulatory adjustments but also through legal education, strengthening the capacity of labor unions, and strict law enforcement.⁵⁶

⁵⁰ Marcus Sidki, Lara Boerger and David Boll, 'The Effect of Board Members' Education and Experience on the Financial Performance of German State-Owned Enterprises', *Journal of Management and Governance*, 28.2 (2024), 445–82 <<https://doi.org/10.1007/s10997-022-09663-4>>.

⁵¹ Jina Kim and Hye-Sun Jung, 'The Effect of Employee Competency and Organizational Culture on Employees' Perceived Stress for Better Workplace', *International Journal of Environmental Research and Public Health*, 19.8 (2022), 4428 <<https://doi.org/10.3390/ijerph19084428>>.

⁵² Jefri Hari Akbar, Yusriyadi Yusriyadi and Soeganda Priyatna, 'Kudus, Local Wisdom, and Tobacco Industry: Historical Trajectory of the Employment Relationship between Scissoring Workers and the Company', *Legality : Jurnal Ilmiah Hukum*, 33.1 (2025), 168–91 <<https://doi.org/10.22219/ljh.v33i1.39186>>.

⁵³ Eleanor Kirk, 'The Worker and the Law Revisited: Conceptualizing Legal Participation Mobilization and Consciousness at Work', *International Journal of Comparative Labour Law and Industrial Relations*, 38.Issue 2 (2022), 157–84 <<https://doi.org/10.54648/IJCL2022008>>.

⁵⁴ Joe McGrath and Ciaran Walker, 'Regulating Ethics in Financial Services: Engaging Industry to Achieve Regulatory Objectives', *Regulation & Governance*, 17.3 (2023), 791–809 <<https://doi.org/10.1111/rego.12482>>.

⁵⁵ Stasys Girdzijauskas and others, 'New Approach to Inflation Phenomena to Ensure Sustainable Economic Growth', *Sustainability*, 14.1 (2022), 518 <<https://doi.org/10.3390/su14010518>>.

⁵⁶ Abdul Kadir Jaelani and others, 'Legal Protection of Employee Wage Rights in Bankrupt Companies: Evidence from China', *Legality : Jurnal Ilmiah Hukum*, 31.2 (2023), 202–23 <<https://doi.org/10.22219/ljh.v31i2.25874>>.



Based on an analysis of the three components of the legal system according to Lawrence M. Friedman, legal substance, legal structure, and legal culture, it can be concluded that the effectiveness of legal protection for workers in the tobacco industry still faces multidimensional challenges.⁵⁷ Considering these three components, it can be affirmed that the effectiveness of legal protection for tobacco industry workers remains at a normative level and has yet to achieve the substantive justice that workers need. As long as legal substance is not adapted to be more responsive, legal structure is not strengthened to be more repressive and responsive, and legal culture is not built to be more egalitarian and rights-conscious, the protection provided will not function effectively. A holistic approach is required, encompassing regulatory reform, strengthening oversight institutions, worker empowerment, and legal culture transformation, so that the protection of workers' rights in the tobacco industry can truly be realized in practice.⁵⁸

Legal Protection Regulations for Workers' Rights in Tobacco Industry in Several Countries

Countries such as Singapore, Germany, and Japan are known for having strong labor protection systems, including in occupational health and safety (OHS). These countries treat workers as subjects who must be protected by the state, making their labor regulations binding and mandatory for all companies to comply with.⁵⁹ This creates a safer working environment and supports worker welfare because the state actively assumes responsibility for guaranteeing their rights. With state intervention through strict regulations and oversight, companies have no choice but to comply with the applicable legal provisions. The selection of these countries as subjects for analysis in the study of legal protection of workers' rights in tobacco companies, particularly regarding health and safety rights, was based on several considerations.⁶⁰

First, an example of a country with a comprehensive OHS system is Germany. Germany's legislative framework for occupational health and safety (OHS) is significantly influenced by European Union Directives, which must be implemented into national law. After these directives are transformed into national regulations,⁶¹ Germany further elaborates them through various laws and implementing regulations. In addition, Germany's OHS regulations are reinforced by accident prevention rules issued by the social accident insurance institution (*Sozialversicherung – Unfallversicherung*). These rules are binding for companies, while technical standards and additional guidelines are voluntary but generally adopted as best practices. Germany's occupational health and safety system involves multiple stakeholders. First, the Federal Government (Bund), through the Federal Ministry of Labour and Social Affairs (*Bundesministerium für Arbeit und Soziales – BMAS*), is responsible for setting OHS regulations at the national level. Second, the state governments (*Länder/ Bundesländer*) carry out oversight and enforcement of these regulations in the field. With this layered and

⁵⁷ Siti Kunarti, Nur Putri Hidayah and Muhammad Bahrul Ulum, 'The Legal Politics of Outsourcing and Its Implication for the Protection of Workers in Indonesia', *Sriwijaya Law Review*, 8.1 (2024), 1–19 <<https://doi.org/10.28946/slrev.Vol8.Iss1>>.

⁵⁸ Rahmat Syah, 'Legal Protection for Contract Workers in a Fixed -Time Work Agreement According to The Labor Law and Human Rights Law', *International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)*, 10.2 (2020), 13597–606 <<https://doi.org/IJMPERDJUN20201295>>.

⁵⁹ Zain Hussain and others, 'A Qualitative Framing Analysis of How Firearm Manufacturers and Related Bodies Communicate to the Public on Gun-Related Harms and Solutions', *Preventive Medicine*, 166 (2023), 107346 <<https://doi.org/10.1016/j.ypmed.2022.107346>>.

⁶⁰ Belinda Townsend and others, 'Public Health Advocacy Strategies to Influence Policy Agendas: Lessons from a Narrative Review of Success in Trade Policy', *Globalization and Health*, 19.1 (2023), 60 <<https://doi.org/10.1186/s12992-023-00960-7>>.

⁶¹ HanYuan Zhang, Xue Yang and Ma Dolores Martínez-Aires, 'A Reference Framework for Health and Safety in the Workplace in China and the European Union: A Comparative Study', *Work*, 70.1 (2021), 247–61 <<https://doi.org/10.3233/WOR-213569>>.



coordinated structure, Germany ensures that worker protection can be effectively implemented, from policy formulation to execution and supervision.⁶²

Second, Singapore is one of the countries with the most comprehensive and modern occupational Safety and Health (OSH) systems in the world, regulated under the Occupational Safety and Health Act (OSH Act No. 7 of 2006). This legal framework not only contains mandatory normative provisions but also establishes a safety paradigm focused on prevention (preventive and proactive approach), rather than merely responding to accidents after they occur. The OSH Act requires all companies, including industries that involve exposure to hazardous chemicals such as the tobacco and cigarette industry, to conduct comprehensive risk assessments across all stages of the production process. These provisions cover hazard identification, risk evaluation, and the formulation of control measures based on the hierarchy of risk mitigation, ranging from elimination, substitution, engineering controls, administrative controls, to the provision of personal protective equipment (PPE).⁶³

In addition, companies are required to provide a tightly controlled working environment, including mechanical ventilation systems to reduce airborne concentrations of tobacco dust and nicotine,⁶⁴ continuous air quality monitoring, and the implementation of industrial hygiene standards to prevent diseases caused by chronic exposure. This approach aligns with Singapore's zero-harm philosophy, which aims to reduce workplace accidents and occupational diseases to near zero through systematic, technology-based prevention efforts. The OSH Act also strengthens worker protection through periodic health examinations, particularly for employees exposed to chemical contaminants or fine particles. These examinations are not merely administrative but serve as analytical instruments to detect early symptoms of occupational diseases, enabling timely intervention.⁶⁵ In terms of law enforcement, the Singaporean government implements a highly strict oversight system through routine inspections as well as spot checks conducted by the Ministry of Manpower. Violations of OHS provisions can result in severe administrative penalties, large fines, and criminal sanctions for serious offenses or those causing harm to workers' health. The combination of legal certainty, consistent enforcement, and strong penalties provides companies with a strong incentive to comply fully with all regulations. Overall, Singapore's OHS system not only meets international standards but exceeds them through the integration of technology, disciplined risk management, and effective law enforcement. If applied to the tobacco industry, this regulatory framework could provide maximum protection for workers, particularly in preventing exposure to nicotine, ammonia, tobacco dust, and other chemicals with long-term health impacts.⁶⁶

Third, Japan regulates occupational health and safety through the Industrial Safety and Health Act (ISHA/Act No. 57 of 1972), a comprehensive regulation that serves as the main foundation for ensuring safe working environments across all industrial sectors, including the tobacco industry if it operates in the country. This law is designed to provide comprehensive protection through a preventive, systematic, and high-technology-based

⁶² Antonia Reihlen and others, 'Interaction of the EU Chemicals Regulation—REACH—with Occupational Safety and Health Legislation: A Report from the 5th German REACH Congress', *Annals of Work Exposures and Health*, 66.6 (2022), 687–97 <<https://doi.org/10.1093/annweh/wxac014>>.

⁶³ Mandowa Johanes, Matsu Mark and Jerie Steven, 'A Global Review of Implementation of Occupational Safety and Health Management Systems for the Period 1970–2020', *International Journal of Occupational Safety and Ergonomics*, 29.2 (2023), 821–36 <<https://doi.org/10.1080/10803548.2022.2083811>>.

⁶⁴ Shuya Zhang and others, 'Indoor Air Quality and Smoking Control in Healthcare Environments in Northern China', *Sustainability*, 15.5 (2023), 4041 <<https://doi.org/10.3390/su15054041>>.

⁶⁵ Waldemar Karwowski and others, 'Grand Challenges for Human Factors and Ergonomics', *Theoretical Issues in Ergonomics Science*, 26.4 (2025), 361–456 <<https://doi.org/10.1080/1463922X.2024.2431336>>.

⁶⁶ Matjaž Rantaša, David Majer and Matjaž Finšgar, 'A Review of Analytical Techniques for the Analysis of Oral Smokeless Products and Heated Tobacco Products', *Critical Reviews in Analytical Chemistry*, 2025, 1–19 <<https://doi.org/10.1080/10408347.2025.2584365>>.



approach, reflecting the highly disciplined culture of Japanese manufacturing supported by strict quality standards. ISHA explicitly requires companies to control exposure to hazardous chemicals, dust particles, and various physical or biological agents that may cause occupational diseases. In the context of the tobacco industry, these provisions are particularly relevant because production processes involve exposure to tobacco dust, nicotine in aerosol form, and various additives such as ammonia, humectants, and flavoring agents, all of which pose risks to workers' respiratory and skin health. As a country with an advanced manufacturing technology tradition, Japan enforces very high standards for engineering controls. Companies are required to implement sophisticated mechanical ventilation systems, local exhaust ventilation, high-tech air filters, and dust collectors to reduce the concentration of tobacco dust and fine particles in the air. In addition, the use of personal protective equipment (PPE) is a basic mandatory requirement. However, Japan emphasizes that PPE serves as the last layer of protection, as the primary priority is controlling hazards at the source and within the work environment according to the hierarchy of hazard controls.⁶⁷

In terms of worker health protection, Japan implements strict and continuous health monitoring. Routine health examinations are mandatory, particularly for employees exposed to chemicals or industrial particles, aiming to detect early health issues that could develop into occupational diseases.⁶⁸ Worker health data is analyzed to support risk identification and evaluate the effectiveness of control measures implemented by companies. Regulatory enforcement in Japan is also carried out through periodic inspections, both scheduled and unscheduled, by the Labour Standards Inspection Offices. The Japanese government emphasizes the importance of continuous improvement in occupational safety, realized through mandatory safety training, detailed standard operating procedures (SOPs), and an incident reporting system that promotes transparency and collective learning. With a disciplined legal framework, a work culture that values precision and quality, and strong government oversight, Japan ensures that workers in high-risk industries, including the tobacco industry, receive maximum protection from exposure to hazardous substances and long-term health risks.⁶⁹

Comparing these three countries, which have implemented comprehensive and consistent legal protection, with Indonesia, it is evident that legal protection for workers, especially in the tobacco industry, remains ineffective. Therefore, legal protection in Indonesia needs to be strengthened through regulatory updates that are more specific to chemical and tobacco dust exposure risks, increasing both the capacity and number of OHS inspectors, and stricter law enforcement against non-compliant companies. Additionally, it is necessary to establish national technical standards regarding nicotine exposure limits, ventilation systems, and specialized health examinations for tobacco industry workers, as well as to cultivate a stronger OHS culture in the workplace. These measures are crucial to ensure that worker protection in Indonesia can reach standards comparable to countries that are more advanced in implementing occupational health and safety.⁷⁰

⁶⁷ Sammy Almashat and others, 'Exposure Registries as a Prevention Tool for Occupational Cancers: Establishing a New Hazardous Drug Registry for Oncology Personnel', *American Journal of Industrial Medicine*, 68.12 (2025), 1037–47 <<https://doi.org/10.1002/ajim.70029>>.

⁶⁸ Kazuya Nagasaki and Hiroyuki Kobayashi, 'The Effects of Resident Work Hours on Well-being, Performance, and Education: A Review from a Japanese Perspective', *Journal of General and Family Medicine*, 24.6 (2023), 323–31 <<https://doi.org/10.1002/jgf2.649>>.

⁶⁹ Kota Fukai and others, 'Length of Employment in Workplaces Handling Hazardous Chemicals and Risk of Cancer among Japanese Men', *Occupational and Environmental Medicine*, 80.8 (2023), 431–38 <<https://doi.org/10.1136/oemed-2022-108775>>.

⁷⁰ Sahda Saraswati Akbar and Rianda Dirkareshza, 'Legal Protection of Workers' Rights for Victims of Workplace Accidents: A Cross-National Comparative Analysis in the Context of Worker Welfare', *Journal of Law, Politic and Humanities*, 5.1 (2024), 568–82 <<https://doi.org/10.38035/jlph.v5i1.887>>.



Legal Protection for Workers' Rights in Tobacco Industry Based on Justice

Legal protection of workers' rights in the tobacco industry carries its own complexities due to the nature of the work, which involves exposure to chemicals, tobacco dust, repetitive tasks, and long-term health risks.⁷¹ In this context, preventive legal protection plays a crucial role in preventing occupational diseases.⁷² This is clearly regulated in Article 8 of Law No. 1 of 1970 on Occupational Safety, which obliges management in labor-intensive cigarette industries to conduct periodic health examinations for workers.⁷³ This obligation is not merely administrative but serves as a legal instrument designed to protect workers from the outset, before real risks occur. Legal protection for workers should fundamentally be guided by all stakeholders because labor law is both regulative (*regulerend*) and binding (*dwingend*) for parties involved in industrial relations. Labor law is based on the principle of justice, reflecting noble norms and upholding human values.⁷⁴ Therefore, law enforcement is not only understood as compliance with regulations but also includes the implementation of court decisions as a tangible form of protection through positive legal mechanisms. Every decision based on statutory provisions constitutes a guarantee of protection for workers in labor-intensive tobacco industries.⁷⁵

In addition, repressive legal protection is also highly necessary, protection provided to resolve disputes or violations in industrial relations.⁷⁶ Conflicts related to occupational diseases in labor-intensive cigarette industries are commonly observed in labor supervision practices. Based on the author's experience as a Labor Inspector, many companies still fail to carry out their obligations for periodic health examinations. In such cases, the health examination report serves a dual function: as a preventive judicial instrument for guidance and ensuring companies fulfill their obligations, and as a repressive judicial instrument when OHS violations occur. This examination report also carries legal weight as valid written evidence in courts in Indonesia. In many regions, cigarette workers, both permanent and contract workers, often face inadequate occupational health and safety standards, weak supervision, and insufficient social security coverage.⁷⁷

This situation highlights the urgency of formulating an ideal regulatory model that not only provides formal protection but also guarantees substantive, procedural, and restorative justice for all workers. An ideal model for protecting workers in the cigarette industry must address issues from upstream to downstream, starting from the formulation of clear legal substance, the establishment of an effective legal structure, to fostering a work culture that

⁷¹ Ana Claudia Gastal Fassa and others, 'Child Labor in Family Tobacco Farms in Southern Brazil: Occupational Exposure and Related Health Problems', *International Journal of Environmental Research and Public Health*, 18.22 (2021), 12255 <<https://doi.org/10.3390/ijerph182212255>>.

⁷² Yousif AbdulRaheem, 'Unveiling the Significance and Challenges of Integrating Prevention Levels in Healthcare Practice', *Journal of Primary Care & Community Health*, 14 (2023) <<https://doi.org/10.1177/21501319231186500>>.

⁷³ Aditya Jain and others, 'The Role of Occupational Health Services in Psychosocial Risk Management and the Promotion of Mental Health and Well-Being at Work', *International Journal of Environmental Research and Public Health*, 18.7 (2021), 3632 <<https://doi.org/10.3390/ijerph18073632>>.

⁷⁴ Ali Masyhar and Silaas Oghenemaro Emovwodo, 'Techno-Prevention in Counterterrorism: Between Countering Crime and Human Rights Protection', *Journal of Human Rights, Culture and Legal System*, 3.3 (2023), 625–55 <<https://doi.org/10.53955/jhcls.v3i3.176>>.

⁷⁵ Junying Lin, Songqing Jin and Hongdong Guo, 'Do Outsourcing Services Provided by Agricultural Cooperatives Affect Technical Efficiency? Insights from Tobacco Farmers in China', *Annals of Public and Cooperative Economics*, 94.3 (2023), 781–804 <<https://doi.org/10.1111/apce.12435>>.

⁷⁶ Mirza Satria Buana and Rahmat Budiman, 'Indonesia's Minimum Wage Policy After The Omnibus Law', *UUM Journal of Legal Studies*, 13 (2022) <<https://doi.org/10.32890/uumjls2022.13.2.8>>.

⁷⁷ Derya Gultekin, Mehtap Hisarciklilar and Ferimah Yusufi, 'Multiple Faces of Labour Market Segmentation within the Turkish Construction Industry', *The Economic and Labour Relations Review*, 35.3 (2024), 749–70 <<https://doi.org/10.1017/elr.2024.35>>.



supports workers' safety and welfare.⁷⁸ With this approach, the tobacco industry would no longer focus solely on productivity but also on the sustainable well-being of its workers. The following discussion presents a framework for an ideal regulatory model encompassing three main pillars: legal substance, legal structure, and legal culture, all grounded in the principles of justice and the protection of workers' human rights.⁷⁹

Ideal legal protection for workers in the tobacco industry must reformulate several aspects, particularly labor regulations. An ideal regulatory model should address the specific needs and risks associated with work in the tobacco industry. Regulations should go beyond merely reiterating general occupational health and safety standards; they must exist as sectoral legal provisions that are technical, operational, and directly applicable to cigarette production environments.⁸⁰ The ideal legal substance should include, *first*, Control of chemical and tobacco dust risks: The tobacco processing industry generates exposure to chemical compounds and fine particles that can affect workers' respiratory health.⁸¹ Ideal regulations must require companies to provide adequate ventilation systems, industry-standard air filtration, and safe procedures for handling both wet and dry tobacco.⁸² Workers should receive complete information regarding the risks of additional chemicals such as ammonia and other additives so that they understand the potential hazards;⁸³ *second*, Ergonomic work standards: Cigarette rollers typically perform repetitive tasks over long periods. Regulations must set mandatory ergonomic standards, such as chairs that support proper posture, sufficient rest breaks, and daily workload limits to prevent muscle injuries and musculoskeletal disorders. Injury prevention training for repetitive tasks should also be mandated, especially for contract workers who are at higher risk of fatigue⁸⁴

third, Periodic and specialized health examinations: Ideal regulations must require companies to conduct routine health check-ups at least twice a year, focusing on respiratory health, lung function, and early detection of musculoskeletal disorders caused by repetitive work. In high-risk work units, chemical exposure assessments should be carried out regularly and at no cost to the workers;⁸⁵ *fourth*, Obligation for social security coverage: Distributive justice requires that all workers, including home-based and contract workers, receive the same level of protection. Therefore, companies must register all employees in the Work

⁷⁸ Abel Afework, Aiggn Tamene and Abera Tafa, 'Compliance with Standard Occupational Health and Safety Measures and Associated Factors Among Small-Scale Metal Industry Workers in Central Ethiopia', *Risk Management and Healthcare Policy*, Volume 17 (2024), 399–409 <<https://doi.org/10.2147/RMHP.S455967>>.

⁷⁹ Dariusz Michalski, 'Operationalization of ESG-Integrated Strategy Through the Balanced Scorecard in FMCG Companies', *Sustainability*, 16.21 (2024), 9174 <<https://doi.org/10.3390/su16219174>>.

⁸⁰ Francesca Pistollato and others, 'Current EU Regulatory Requirements for the Assessment of Chemicals and Cosmetic Products: Challenges and Opportunities for Introducing New Approach Methodologies', *Archives of Toxicology*, 95.6 (2021), 1867–97 <<https://doi.org/10.1007/s00204-021-03034-y>>.

⁸¹ Diana Mariana Cocârță and others, 'Indoor Air Pollution with Fine Particles and Implications for Workers' Health in Dental Offices: A Brief Review', *Sustainability*, 13.2 (2021), 599 <<https://doi.org/10.3390/su13020599>>.

⁸² Kate McEnroe, Isabelle Loble and Abigail Kerns, 'Benzotriazole (BTA): A Review of the Current Research into Toxicity', *Journal of the American Institute for Conservation*, 64.4 (2025), 285–302 <<https://doi.org/10.1080/01971360.2025.2475546>>.

⁸³ Vishal Patel and others, 'Trends in Workplace Wearable Technologies and Connected-Worker Solutions for Next-Generation Occupational Safety, Health, and Productivity', *Advanced Intelligent Systems*, 4.1 (2022) <<https://doi.org/10.1002/aisy.202100099>>.

⁸⁴ Edward W. Ansah and others, 'Climate Change, Health and Safety of Workers in Developing Economies: A Scoping Review', *The Journal of Climate Change and Health*, 3 (2021), 100034 <<https://doi.org/10.1016/j.joclim.2021.100034>>.

⁸⁵ Inaam M. Nasrallah and others, 'Prevalence of Accident Occurrence Among Scientific Laboratory Workers of the Public University in Lebanon and the Impact of Safety Measures', *Safety and Health at Work*, 13.2 (2022), 155–62 <<https://doi.org/10.1016/j.shaw.2022.02.001>>.



Accident Insurance and Death Insurance programs. Employment status should not be a differentiating factor in fulfilling occupational safety and health rights.⁸⁶

A strong legal substance will not be effective without a robust institutional structure. This ideal model requires both the government and companies to have mechanisms that ensure regulations are fully implemented. *First*, Integrated supervision: Labor inspectors, BPJS Ketenagakerjaan, and the Ministry of Industry need to conduct coordinated inspections. Large cigarette industries should be audited at least twice a year, while medium and small industries at least once a year.⁸⁷ Integrated supervision reduces data manipulation practices and reinforces corporate accountability; *second*, Independent occupational health and safety audits: In addition to government supervision, companies must undergo annual OHS audits conducted by independent institutions.⁸⁸ Audit reports should be accessible to labor unions or worker representatives to ensure transparency. This mechanism serves as a control tool against potential violations that may go undetected by regular inspections; *third*, Establishment of company OHS committees: The ideal structure requires the formation of OHS Committees composed of both management and workers. These committees serve as a forum for dialogue, problem-solving, and decision-making related to workplace safety. Worker participation in the committee represents procedural justice, as employees have a direct voice in policies affecting their safety.⁸⁹

Even with well-formulated regulations and institutional structures, their implementation still depends on the safety culture cultivated in the workplace.⁹⁰ An ideal model must build a legal culture that makes occupational health and safety (OHS) a collective value. *First*, Continuous OHS education and training: Companies must provide basic training for new employees and periodic advanced training, particularly on the use of personal protective equipment (PPE), handling chemicals, and preventing repetitive strain injuries.⁹¹ The more frequent the training, the higher the compliance with safety procedures; *second*, Non-punitive incident reporting system: Workers often hesitate to report incidents for fear of sanctions. Therefore, the ideal model should provide a mechanism for reporting workplace accidents or near-misses without penalties. This system encourages active worker participation in creating a safe work environment;⁹² *third*, strengthening labor unions: Labor unions should be given space to participate in OHS supervision and policy development. In the ideal model, unions not only serve as advocacy organizations but also act as key players in fostering a safety culture through socialization, education, and internal control mechanisms.⁹³

⁸⁶ Ahmed Farouk Kineber and others, 'Benefits of Implementing Occupational Health and Safety Management Systems for the Sustainable Construction Industry: A Systematic Literature Review', *Sustainability*, 15.17 (2023), 12697 <<https://doi.org/10.3390/su151712697>>.

⁸⁷ Riana Harumi Putri and Sri Hartini, 'Overview of Compliance with Payment of Employment Social Security Contributions for the Wage Recipient Segment and Its Improvement Strategy', *Jurnal Indonesia Sosial Teknologi*, 5.10 (2024), 4131–43 <<https://doi.org/10.59141/jist.v5i10.5314>>.

⁸⁸ Malińska, Bugajska and Bartuži.

⁸⁹ Nicola Murgia and Angela Gambelunghe, 'Occupational <scp>COPD</Scp> —The Most Under-recognized Occupational Lung Disease?', *Respirology*, 27.6 (2022), 399–410 <<https://doi.org/10.1111/resp.14272>>.

⁹⁰ Fred Sherratt, Emi Szabo and Matthew R. Hallowell, 'Seeking a Scientific and Pragmatic Approach to Safety Culture in the North American Construction Industry', *Safety Science*, 181 (2025), 106658 <<https://doi.org/10.1016/j.ssci.2024.106658>>.

⁹¹ Alex Aruldoss and others, 'The Relationship between Work–Life Balance and Job Satisfaction: Moderating Role of Training and Development and Work Environment', *Journal of Advances in Management Research*, 19.2 (2022), 240–71 <<https://doi.org/10.1108/JAMR-01-2021-0002>>.

⁹² Nikhil Bugalia, Yu Maemura and Kazumasa Ozawa, 'A System Dynamics Model for Near-Miss Reporting in Complex Systems', *Safety Science*, 142 (2021), 105368 <<https://doi.org/10.1016/j.ssci.2021.105368>>.

⁹³ Agoes Djatmiko, Gunarto and Anis Mashdurohatun, 'Reconstruction on the Regulation of Occupational Safety and Health in Indonesia Based on Justice', *Scholars International Journal of Law, Crime and Justice*, 4.5 (2021), 296–301 <<https://doi.org/10.36348/sijlcj.2021.v04i05.005>>.



The ideal model of legal protection for workers in the tobacco industry will be effective and fair only if these three aspects are implemented simultaneously and in an integrated manner. A comprehensive approach that combines regulatory reform, institutional strengthening, and the transformation of legal culture will not only improve worker safety and health but also reinforce the social responsibility of tobacco companies. The implementation of this ideal model will promote the development of a more humanistic, transparent, and sustainable tobacco industry, while ensuring that worker welfare remains an integral part of the industry's continuity amid evolving economic and social dynamics.⁹⁴

Conclusion

Based on the discussion presented, several conclusions can be drawn. *First*, legal protection for workers in the tobacco industry has not been effective due to weak law enforcement, such as occupational safety and health (OSH) regulations that are too general, insufficient labor inspection, and low legal literacy among workers. Many tobacco workers neglect their safety and health despite exposure to hazardous substances from tobacco, largely due to the absence of personal protective equipment. *Second*, countries such as Singapore, Germany, and Japan are known to have strong worker protection systems, including comprehensive occupational safety and health standards. These three countries position workers as subjects who must be protected by the state, making their labor regulations binding and mandatory for all companies. This creates safer working environments and supports worker welfare because the state actively takes responsibility in guaranteeing their rights. *Third*, the ideal legal protection for workers in the tobacco industry must include comprehensive labor regulations covering chemical and tobacco dust risk control, ergonomic work standards, regular and periodic health examinations, and mandatory employment social security. In addition, an ideal legal structure is required, such as integrated labor inspections, independent OSH audits, and the establishment of company-level OSH committees. Furthermore, an ideal legal culture is also necessary, which includes continuous OSH education and training, a no-penalty incident reporting system, and the strengthening of labor unions.

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