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Between Law and Protection: A Reading of the Occupational Safety and Health System in Jordan

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Summary

This paper examines the occupational safety and health (OSH) system in Jordan as a domain where human rights intersect with economic and regulatory dimensions. Despite notable legislative progress within the national framework, a persistent gap remains between legal provisions and their practical implementation. This gap is shaped by structural challenges affecting the effectiveness of oversight mechanisms, limited data availability, and insufficient coverage of vulnerable sectors and the informal economy.

The paper adopts a qualitative analytical approach, combining a review of the governing legislative framework with an analysis of official data issued by relevant national institutions, alongside a review of international literature and reports. The aim is to provide an in-depth, interpretive understanding of the factors contributing to gaps in compliance and enforcement.

From an economic perspective, estimates by the International Labour Organization indicate that the global cost of occupational injuries and diseases amounts to approximately 3.94% of global GDP[1]. At the national level, widely cited estimates suggest that the economic cost of workplace accidents in Jordan may exceed 4.2% of GDP annually, with work-related fatalities occurring at a rate of roughly one death every two days[2]. This economic burden—encompassing healthcare costs, social security compensation, and productivity losses—highlights the need to shift from a compliance-based approach toward a preventive investment model in occupational safety and health.

Legally, the Jordanian framework is primarily grounded in Jordanian Labor Law No. 8 of 1996 and its amendments, reflecting a cumulative process of ongoing reform aimed at strengthening regulatory effectiveness and enhancing workplace protection. However, despite these advancements, the system continues to face structural challenges—particularly in achieving integration and alignment with international standards. This is further underscored by the absence of ratification of key international conventions, most notably the Occupational Safety and Health Convention No. 155 (1981) and the Promotional Framework for Occupational Safety and Health Convention No. 187 (2006), which limits the comprehensiveness of the national framework and its alignment with global best practices.

1 International Labour Organization, 2023. Global Estimates of Occupational Accidents and Diseases.
2 The Jordan Times, 2025. Workplace accidents in Jordan cost more than 1.25 billion JOD annually.

Introduction

The occupational safety and health (OSH) system in Jordan constitutes a core component of the country's social protection framework and economic regulation, given its direct intersection with workers' rights, productivity levels, and the overall efficiency of the work environment. Despite the notable legislative progress achieved in recent years, the fundamental challenge remains the gap between the legal framework on one hand and the effectiveness of its practical implementation on the other. This gap directly affects the system's ability to mitigate occupational risks and promote safe working environments.

Data and Official Statistics Challenges:

Jordan's occupational safety and health system faces a structural data gap, reflected in the absence of a comprehensive and integrated national database to monitor workplace accidents, injuries, and occupational diseases. Official statistics rely primarily on data from the Social Security Corporation, which recorded more than 21,412 workplace accidents in 2024. Of these, 17,088 cases were officially recognized (79.8%), in addition to 189 fatal cases, corresponding to a rate of 11.7 injuries per 1,000 insured workers[3].

However, these figures represent only the formally recorded portion of workplace incidents and do not capture the true scale of the phenomenon. This is due to gaps in reporting and the exclusion of large segments of the workforce from official documentation—either because workplace injuries are not reported or because workers themselves are not registered under the social security system. Estimates indicate that approximately 59% of the workforce is employed in the informal sector, which significantly limits the comprehensiveness of statistical coverage and leaves a substantial share of workplace incidents outside formal documentation. This, in turn, results in a methodological underestimation of the true scale of the problem and weakens the accuracy of national indicators[4].

3 Social Security Corporation. (2024). Statistical Report on Workplace Accidents and Injuries. Amman, Jordan.
4 World Bank, Jordan Labor Market Report, 2022.

Documentation and Reporting Gap in Workplace Injuries in Jordan: Estimating the Difference Between Official Figures and Actual Scale:

Official data in Jordan relies on workplace injuries reported to the Social Security Corporation, which recorded 21,412 incidents in 2024. However, this figure does not reflect the full extent of the phenomenon; rather, it represents only those cases formally documented within the institution's records. As such, it should be understood as an indicator of reported injuries, not the total number of incidents that actually occurred.

Interpreting this figure as a comprehensive measure of workplace injuries results in an incomplete assessment, as it overlooks the gap between actual occurrences and those formally reported. In response, a corrective estimation model is introduced to reposition the role of official data—from being seen as a "final outcome" to serving as an "analytical starting point" for generating a more realistic and inclusive estimate.

This model is based on the key assumption that underreporting does not indicate the absence of incidents, but rather reflects limitations in detection and documentation systems. Accordingly, correction factors are applied to account for varying levels of underreporting and compliance across different work environments, enabling a more comprehensive reconstruction of the true scale of workplace injuries. (For detailed methodology and calculation steps, please refer to the methodological annex attached to this paper.)

Based on this approach, estimates suggest that the actual number of workplace injuries in 2024 likely ranged between 34,259 cases (lower-bound scenario) and 49,247 cases (upper-bound scenario). This represents an estimated gap of between 60% and over 130% compared to officially recorded figures.

This discrepancy reflects differences in statistical coverage between what is formally documented and what occurs in reality. Its significance becomes even clearer when considering the economic dimension of workplace injuries, with total costs estimated at approximately 4.2% of GDP. Underreporting, therefore, not only affects the number of recorded cases but also leads to an underestimation of the overall economic burden—including productivity losses, healthcare expenditures, compensation costs, and work interruptions.

In essence, the corrective estimation model reframes official data not as a complete representation of reality, but as a foundation for estimating a broader and more accurate scope of the phenomenon. This approach enhances the analytical value of national indicators and helps reduce estimation gaps associated with weak reporting and documentation systems.

Toward a Dual Analytical Framework: International and National Contexts:

In light of these structural data limitations, any assessment of the occupational safety and health (OSH) system in Jordan remains incomplete unless it is situated within a dual analytical framework that integrates both the international and national contexts.

At the international level, OSH systems are undergoing a clear conceptual shift toward comprehensive risk management approaches that link performance to actual outcomes, rather than relying solely on formal legal compliance. At the national level, the Jordanian system reflects rapid legislative development, accompanied by ongoing challenges in institutional and operational transformation—particularly in relation to inspection capacity, data integration, and the effectiveness of enforcement mechanisms.

Accordingly, the existing gap cannot be explained as a purely legislative shortcoming. Rather, it should be understood as the result of a complex interaction between legal frameworks, institutional governance, the informal economy, and weaknesses in statistical infrastructure. Addressing this gap therefore requires a comprehensive analytical approach that goes beyond the legal text to examine the realities of implementation in practice.

International Context: Occupational Safety and Health as a Human Right and an Economic Driver:

International institutions increasingly recognize occupational safety and health (OSH) as a core component of human rights and decent work standards. The United Nations human rights framework affirms that the "right to a safe and healthy working environment" is grounded in universal principles, drawing on instruments such as the International Covenant on Economic, Social and Cultural Rights, the standards of the International Labour Organization, and the UN Guiding Principles on Business and Human Rights. From a decent work perspective, the International Labour Organization emphasizes that protecting lives and ensuring work is carried out in conditions of "safety and dignity" is a fundamental social responsibility.

Global statistics highlight the scale of the burden associated with inadequate occupational safety systems. Each year, approximately 2.6 million deaths are attributed to occupational diseases, compared to around 330,000 deaths resulting from workplace accidents. Joint data from the World Health Organization and the International Labour Organization indicate that the vast majority of these deaths are linked to long-term, chronic exposures—such as extended working hours, work-related stress, and environmental hazards—rather than sudden incidents. This underscores the need to reorient prevention priorities toward comprehensive risk management approaches, including exposure measurement, biological monitoring, and the application of engineering controls, rather than relying primarily on personal protective equipment as the main line of defense.

In this context, occupational diseases emerge as the most complex dimension of workplace risks, due to their cumulative nature and the difficulty of diagnosing them and directly linking them to workplace conditions, compared to immediate workplace injuries. These diseases encompass a wide spectrum of conditions, including respiratory illnesses caused by exposure to dust and chemicals, musculoskeletal disorders resulting from repetitive strain, and mental health conditions associated with high-pressure work environments. This dimension highlights that assessing the effectiveness of OSH systems should not be limited to indicators of accidents and injuries alone, but must also include occupational disease indicators as a core measure of workplace quality and sustainability.

At the macroeconomic level, estimates based on International Labour Organization data suggest that the annual global cost of occupational injuries and diseases amounts to approximately 3.94% of global GDP. From this perspective, investment in prevention systems is not merely a legal or ethical obligation, but a sound economic decision that enhances productivity while reducing compensation costs and healthcare expenditures. This approach has been further reinforced by global initiatives promoting occupational safety and health, encouraging governments and institutions to integrate OSH standards into Environmental, Social, and Governance (ESG) frameworks, as well as into the United Nations Global Compact.

Recent international literature also indicates that the shift from a "compliance-based safety" model to an "outcomes-based safety" model has become a key benchmark for evaluating the effectiveness of OSH systems. The mere existence of laws and regulations is no longer sufficient; instead, the actual impact on reducing injury and occupational disease rates has become the true measure of performance. Within this framework, the integration of OSH indicators into ESG standards has gained increasing importance, positioning workplace safety as a central pillar in assessing institutional performance and sustainability, and strengthening the link between legal compliance, organizational performance, and long-term economic resilience.

Experiences from a range of countries—both developed and developing—demonstrate the importance of adopting integrated models for managing occupational safety and health. For example, the United Kingdom applies a risk-based inspection system through the Health and Safety Executive. Germany integrates occupational safety within a comprehensive insurance and regulatory system centered on prevention and rehabilitation. Meanwhile, Singapore has developed an advanced national risk management system that links safety indicators to institutional performance and levels of regulatory compliance.

At the regional level, the United Arab Emirates stands out as a model that has developed regulatory frameworks for occupational safety and health within workplaces—particularly in high-risk sectors—through inspection and safety requirements tied to licensing and operational approvals. Similarly, Saudi Arabia, within the framework of Saudi Vision 2030, has pursued a strategic direction aimed at strengthening its occupational safety and health system, enhancing compliance

and inspection mechanisms, and linking them more closely to workplace conditions and worker safety.

These experiences demonstrate that integrating occupational safety into institutional governance strategies significantly improves compliance levels and enhances real-world outcomes—particularly when combined with regulatory and economic incentives that support compliance and promote sustainability.

The Legislative Framework Governing Occupational Safety and Health in Jordan:

The Jordanian Constitution serves as the supreme legal reference underpinning the occupational safety and health (OSH) system in the Kingdom. Article 23 does not merely affirm the right to work; it also places a clear obligation on the state to protect and regulate labor through legislation that upholds a set of fundamental principles—explicitly including compliance with health standards in the workplace[5].

The significance of this provision lies in elevating occupational safety and health from the realm of administrative regulation or operational discretion to that of a binding constitutional obligation. In doing so, it frames safe working conditions as a matter of public order, rather than simply a contractual arrangement between employer and worker. Accordingly, the right to a safe working environment becomes part of the broader constitutional guarantees aimed at protecting human dignity and physical integrity.

However, despite its foundational importance, this provision remains general in its formulation. It establishes the principle but does not specify implementation tools, measurement standards, or enforcement and accountability mechanisms. This necessitates intervention by ordinary legislation—through detailed laws and regulations capable of translating this constitutional principle into enforceable legal obligations subject to monitoring and oversight.

5 Article 23 of the Jordanian Constitution states:

1. Work is the right of all citizens, and the State shall provide employment for Jordanians by directing and developing the national economy.
2. The State shall protect labor and enact legislation based on the following principles:
   a. Granting workers wages commensurate with the quantity and quality of their work.
   b. Determining weekly working hours and granting workers weekly and annual paid rest days.
   c. Providing special compensation for workers with dependents, and in cases of dismissal, illness, disability, and emergencies arising from work.
   d. Establishing specific conditions for the employment of women and minors.
   e. Ensuring that workplaces are subject to health standards.
   f. Guaranteeing freedom of trade union organization within the limits of the law.

In this sense, the Jordanian Constitution functions as a foundational reference framework that sets the overall direction of legislative policy, while responsibility for detailed regulation and implementation rests with the subsequent legal and regulatory system, which translates this constitutional commitment into practical reality across different workplace environments.

Jordanian Labor Law No. 8 of 1996: The Core Framework for Occupational Safety and Health

The Jordanian Labor Law No. (8) of 1996 constitutes the primary legal framework governing occupational safety and health (OSH), as it translates protection from a general constitutional principle into a direct legal obligation within the employment relationship. Article 78 places a duty on the employer to take all necessary precautions to protect workers from occupational hazards and diseases, provide personal protective equipment, inform workers of risks prior to employment, and ensure the availability of first aid within the workplace, while clearly stipulating that workers shall bear no costs for the implementation of these obligations.

Article 79 grants the Minister the authority to issue detailed instructions regarding safety measures, equipment, and environmental standards, including controls on pollution, noise, and vibration. Article 80 addresses risks related to fires, explosions, and the storage, transportation, and handling of flammable materials. The law also introduces a behavioral dimension through Article 82, which requires workers themselves to comply with safety instructions and not misuse protective equipment, thereby reinforcing shared responsibility.

Article 84 strengthens enforcement by empowering the Minister to order full or partial closure of establishments or halt the operation of equipment where risks are present, without prejudice to workers' wages during the closure period. Article 85 establishes the regulatory foundation for systems governing OSH committees, preventive medical care, and protection against risks arising from machinery and workplaces. Furthermore, Articles 86–89 demonstrate that the law extends beyond prevention by linking it to the system of occupational injuries and diseases, including reporting obligations and compensation mechanisms. These provisions also apply to workers not covered by the social security system, requiring employers to ensure medical treatment for injured workers, report incidents to the Ministry within 48 hours, and assume responsibility for compensation related to occupational diseases, while regulating claims in accordance with the law.

A close legal reading of these provisions shows that the Jordanian Labor Law is robust in its textual structure, yet in some respects it still leans toward a model of "general obligation" rather than one of "detailed risk management." Article 77 imposes financial penalties for violations of this section or any regulations issued under it, ranging from 100 to 500 JOD, with stricter penalties for repeat offenses. However, this deterrence remains limited when compared to the cost of compliance for some establishments, particularly in sectors where preventive measures require significant financial or technological investment.

Moreover, the use of broad terms such as "necessary precautions" in Article 78 and "measures and controls" in Article 79 provides useful legislative flexibility on one hand, but on the other creates wide scope for interpretation by inspectors, courts, and technical experts. In practice, this results in varying levels of implementation across establishments and sectors.

Article 84 remains one of the strongest enforcement provisions, as it authorizes closure and suspension of operations to protect workers. However, it can only function as an effective tool for change if accompanied by swift enforcement, precise technical standards, and follow-up mechanisms that ensure the root causes of risk are addressed—not merely formal compliance measures.

In the area of occupational injuries and diseases, Article 87 mandates reporting within 48 hours, Article 88 holds the employer responsible for compensation for occupational diseases based on medical reports, and Article 89 regulates compensation claims within the legal framework. Together, these provisions demonstrate the legislator's intent to create a cohesive chain of responsibility linking incident, outcome, and compensation. Nevertheless, the effectiveness of this system depends on the existence of accurate data, sound occupational medical diagnosis, and a regulatory system that treats reporting not as a procedural formality, but as the starting point for preventive and corrective action.

Analysis of Jordanian Labor Law No. 8 of 1996 shows that the legislative framework has established a solid legal foundation for occupational safety and health, based on a distribution of responsibilities among employers, workers, and regulatory authorities. However, despite its regulatory strength, this framework remains closer to a model of "general, framework-based obligation" than to a fully integrated risk management system.

Accordingly, subsequent legislative developments—through regulations and instructions—emerged as a direct response to this gap, marking a shift toward a more detailed and structured approach to risk management and prevention. This evolution is particularly reflected in the regulatory instruments issued in 2023.

Occupational Safety, Health, and Prevention of Occupational Hazards in Establishments Regulation No. (31) of 2023: The Transition Toward Risk Management

Regulation No. (31) of 2023 regarding Occupational Safety, Health, and the Prevention of Occupational Hazards in Establishments represents the most distinct turning point in Jordanian legislation, as it shifts the system from a logic of subsequent compliance to a logic of proactive prevention based on risk assessment. The regulation was issued based on Article (85) of the Labor Law, followed by executive instructions to detail its implementation tools. Its provisions reveal that mandate is no longer restricted to providing traditional means of protection, but now includes building a risk assessment document, identifying exposed persons, and estimating the degree of danger based on the probability and severity of injury. This is followed by formulating a signed preventive plan that includes the required measures, timeframes, responsible parties, and financial allocations, provided that risks are re-evaluated at least every two years or upon the occurrence of an accident, a near-miss incident, a legislative change, or the implementation of new technology. Furthermore, the regulation stipulates that reporting near-misses, accidents, and occupational diseases should be part of a correction and improvement cycle rather than mere retrospective archiving, and it obligates establishments employing twenty workers or more to meet these requirements. With this phrasing, the law has become closer to the logic of "system management" than to the logic of "violation inspection," which is a major conceptual development; however, it does not gain its full effect unless accompanied by advanced training for inspectors, institutional capacity to read data, and a real enforcement mechanism to ensure the transformation of assessment into actual change in the work environment.

Regulation No. (31) of 2023 represents a pivotal turning point in the Jordanian legislative structure, as it moved the occupational safety and health system from a logic of procedural compliance to a logic of risk management. However, the effectiveness of this transition remains dependent on the ability of establishments and regulatory bodies to transform assessment tools into daily executive practices.

Accordingly, this legislative shift cannot be understood in isolation from the executive instructions that came later to detail the tools of measurement and application.

Risk Assessment Instructions and Hazard Source Identification Instructions: The Transition from General Safety to Analytical Safety

The 2023 Instructions for Risk Assessment in the Work Environment, alongside the 2023 Instructions for Identifying Types of Occupational Hazard Sources in the Work Environment and the Necessary Precautions and Measures for Prevention, serve to complete the framework established by the Occupational Safety, Health, and Prevention of Occupational Hazards in Establishments Regulation No. (31) of 2023. It is here that the greatest analytical value within the Jordanian legislative system becomes apparent. The risk assessment instructions mandate that establishments appoint qualified personnel to conduct risk assessments, involve workers and safety committees in the process, and generalize these assessments across all workplaces and operations, including mobile sites. Furthermore, they require the identification of the most vulnerable groups, such as pregnant and breastfeeding women, workers under the age of eighteen, persons with disabilities, non-Jordanian workers, and lone workers. The instructions also compel the determination of risk levels based on the probability and severity of harm, and the preparation of a detailed preventive plan that outlines hazard sources, precautions, timelines, responsibilities, and funding. This assessment must be reviewed periodically every two years, or upon the occurrence of any accident, near-miss incident, or legislative and operational changes. Meanwhile, the instructions for identifying hazard sources go even further by establishing an extensive list of sources including machinery, equipment, manual tools, cranes, work at heights, confined spaces, excavations, boilers, electricity, fire, chemical and biological substances, noise, vibration, lighting, heat and cold stress, radiation, manual handling, ergonomic risks, office work risks, and psychosocial risks. This shift is extremely significant because it recognizes—for the first time

in explicit phrasing—that occupational danger is not limited to injuries, fires, or electrocution, but also encompasses psychological, social, and organizational risks. In essence, it acknowledges that safety in the work environment is a multi-dimensional construct, not merely a collection of protective tools. However, this transition remains susceptible to failure if it is not translated into genuine capabilities in training, analysis, and inspection, and into a unified data language shared between establishments and the Ministry.

The executive instructions regarding risk assessment and the identification of hazard sources reveal a qualitative shift in the operational concept of occupational safety, moving from a focus on visible accidents to the adoption of a comprehensive analytical approach that includes physical, organizational, and psychological risks.

Nevertheless, this conceptual evolution remains conditional upon the existence of institutional capacities capable of measurement, interpretation, and analysis. This opens the door to challenges associated with the medical and regulatory infrastructure within establishments, as manifested in the Preventive Medical Care System.

Preventive and Curative Medical Care Regulation No. (32) of 2023: Expanding the Scope of Health Protection

The Preventive and Curative Medical Care Regulation for Workers in Establishments No. (32) of 2023 moves occupational safety from a purely technical dimension to a health-oriented one. This is a highly significant development because occupational protection is not concerned only with preventing accidents, but also with preventing or early detecting diseases and addressing them before they transform into permanent disability or a loss of the ability to work. This regulation was issued based on Article (85) of the Labor Law and was followed by the development of an executive framework through detailed procedures to organize initial and periodic medical examinations, ensuring the transformation of legislative texts into practical applications within the work environment. A legal reading of this system reveals that it does not stop at mandating medical examinations; rather, it links them to the functions of prevention and vocational fitness, making healthcare an integral part of risk management within the institution. It also opens the door for forming medical committees or units and accrediting contracted entities according to the Minister's requirements. However, the true challenge lies not in the text itself, but

in its operation. If medical examinations are divorced from risk analysis and the functional environment, they may turn into a formal administrative procedure that changes nothing regarding the causes of exposure or working conditions. In contrast, the real legal and social value of the regulation lies in using examination results to modify the work environment and reduce sources of harm, rather than transferring risks to the worker or classifying their health as a burden on the establishment.

The Preventive and Curative Medical Care Regulation reflects a clear expansion in the concept of occupational safety and health to include the direct health dimension of the worker, rather than just technical accident prevention. However, the actual value of this system depends on the extent of its integration with the results of risk assessments within the work environment, rather than viewing the medical examination as an isolated procedure.

From here, the need arises to strengthen the internal institutional structure of establishments, which is addressed by the Regulation for Occupational Safety and Health Committees.

Regulation for Forming Occupational Safety and Health Committees and Appointing Supervisors No. (33) of 2023: Strengthening Internal Governance in Establishments

The Regulation for Forming Occupational Safety and Health Committees and Appointing Supervisors in Establishments No. (33) of 2023 establishes a new phase of internal governance within facilities. Oversight is no longer limited to external inspections by the Ministry; rather, the establishment itself must now possess a permanent internal structure dedicated to occupational safety and health. This regulation was also issued based on Article (85) of the Labor Law. This direction carries significant weight, as the legislator's role has expanded beyond merely updating legal texts to reorganizing the management mechanisms of occupational safety and health within establishments. This is achieved by creating permanent internal structures responsible for follow-up, implementation, and self-monitoring of safety procedures. However, the core practical problem lies in the possibility that a committee may be established in form only, without being granted actual authority or sufficient independence. In such cases, its presence becomes a "paper exercise" that does not influence administrative decisions, budgets, or operational priorities. This highlights the importance of linking these committees to systems of documentation,

training, corrective closure, and internal accountability. A committee that lacks data, authority, and follow-up capabilities cannot function as a preventive tool; it merely becomes a facade of compliance. Therefore, an analysis of this regulation should not stop at the mere existence of a committee, but rather focus on its ability to produce a real institutional impact within the workplace.

The Regulation for Occupational Safety and Health Committees establishes a stage of internal governance within establishments by transferring part of the responsibility for safety from the state to the institution itself. However, the effectiveness of this model depends on the independence of these committees and their ability to access data and make decisions, rather than their mere formal existence.

Accordingly, the success of this framework is directly linked to the system's overall capacity to address the psychosocial dimension of occupational risks, as it is one of the most prominent modern shifts in legislation.

It is important to note here that the issuance of the Occupational Safety, Health, and Prevention of Occupational Hazards Regulation No. (31) of 2023, the Preventive and Curative Medical Care Regulation for Workers in Establishments No. (32) of 2023, and the Regulation for Forming Occupational Safety and Health Committees No. (33) of 2023—all issued under the legislation governing the labor sector—represents a qualitative leap toward adopting an analytical risk management approach instead of the traditional approach based on reactive responses to accidents.

For the first time, this regulatory framework explicitly moves toward integrating psychosocial risks within the scope of occupational safety and health. This includes phenomena such as job burnout, work stress, workplace bullying, and other non-physical factors that affect a worker's health and psychosocial well-being. This reflects a significant evolution in the concept of a "safe work environment," moving from the traditional physical dimension to a comprehensive and integrated dimension of occupational health.

Nevertheless, this legislative development, despite its importance, faces a fundamental challenge during the practical implementation phase. This challenge lies in the need to develop precise, standardized measurement tools capable of converting qualitative concepts related to psychosocial risks into monitorable and analyzable indicators. Furthermore, this requires strengthening the capacities

of the labor inspection apparatus through specialized training for inspectors on assessing these types of non-material risks, ensuring an actual transition from a theoretical legislative framework to effective practical application within various work environments.

Instructions for Identifying Types of Occupational Hazard Sources in the Work Environment and Necessary Precautions and Measures for Prevention for the Year 2023: A Delayed but Significant Legislative Recognition

These instructions gain exceptional importance because they explicitly include psychosocial risks within the sources of hazards that an employer must assess and manage, while emphasizing the involvement of workers in the identification, prevention, training, and documentation processes. They also refer, whenever necessary, to the Jordanian Standard for managing mental health and psychological safety in the work environment, reflecting the transition of the legislative framework from a level of implicit recognition of psychological risks to a level of near-explicit organizational recognition of them as part of occupational hazards, rather than merely isolated individual cases.[6]

This is a pivotal point because much of Arab legislation still limits protection to material and physical aspects, while Jordan, through these instructions, is working to introduce modern international language that views excessive workload, lack of support, bullying, organizational pressure, and poor job design as risk factors that must be measured and mitigated. However, the existence of the text does not necessarily mean the existence of full protection; psychosocial risks require indicators, assessment tools, trained inspectors, and an institutional culture that recognizes that safety does not end at the boundaries of a physical accident, but extends to mental health and the ability to continue working with dignity and stability.

6 The "Instructions for Identifying Types of Occupational Hazard Sources in the Work Environment and the Necessary Precautions and Measures for Prevention for the Year 2023" state the following:
The "Instructions for Identifying Types of Occupational Hazard Sources in the Work Environment and the Necessary Precautions and Measures for Prevention for the Year 2023" state the following:
Article (25): Psychosocial Hazards
A. The employer must identify psychosocial hazards resulting from work, such as violence, harassment, discrimination, and stress, and take the necessary precautions and measures to protect workers, as follows:
1. Commitment to the policy of protection against violence, harassment, and discrimination in the world of work, approved by the Ministry, and the guiding manual for implementing this policy.
2. Taking appropriate measures to prevent stress and its associated risks resulting from work, such as organizing work and rest periods to ensure that workers are not exposed to work-induced stress.

B. The employer may be guided by the Jordanian Standard (ISO 45003) for Occupational Health and Safety Management – Psychological Health and Safety at Work – Guidelines for Managing Psychosocial Risks, when identifying psychosocial hazards resulting from work and taking the necessary precautions and measures to protect workers.

The integration of psychosocial risks within the occupational safety system represents an advanced conceptual shift that redefines occupational hazard to include the non-material dimensions of work. Nevertheless, this legislative recognition is still in the practical foundation stage, as the tools for measurement, inspection, and implementation remain relatively limited compared to traditional physical risks.

Accordingly, this evolution leads to the necessity of analyzing the institutional and regulatory framework that is supposed to translate these concepts into practical reality within work environments.

Advanced Decisions: Moving from Text to Documentation, Tracking, and Review

Jordan has moved into an advanced stage in its occupational safety and health system, as the Ministry of Labor has issued decisions regarding forms, records, and policies that have made compliance more verifiable and measurable. Specifically, the decision to adopt the Occupational Safety and Health Policy template for employers utilizing twenty or more workers for the year 2024—issued based on Article (7) of Regulation No. 31 of 2023—has transformed the policy from a general concept into an approved template according to which the facility's commitment must be formulated. More importantly, the decision regarding the records required to be maintained has obligated the employer to keep a wide range of records, either in paper and/or electronic format, both at the headquarters and at the workplace, and to provide them to labor inspectors upon request. These records include minutes of safety committee meetings, results of pollutant measurements in the work environment, logs of accidents, injuries, and occupational diseases with preventive reports to prevent recurrence, daily and periodic inspection checklists, emergency plans, the risk assessment register, worker training records, chemical substance registers and their safety data sheets (SDS), inspection records for scaffolding and work at heights, and other specialized logs. This direction reflects that the intent is not to add a bureaucratic character, but rather to build an institutional memory capable of auditing and analysis. However, the real danger lies in documentation turning into formal procedures without actual impact if it is not utilized for continuous improvement, corrective closure, and re-evaluation.

Furthermore, the 2024 decisions also included specific requirements for first aid equipment and medical references, which strengthens the preventive structure and demonstrates that the executive legislator is moving toward closing practical gaps rather than sufficing with general formulations.

Civil Defense Law and Related Preventive Legislation: Fire Protection as a Pillar of Occupational Safety

The Civil Defense Law No. (18) of 1999 constitutes one of the supporting components of the occupational safety and health system, as its provisions intersect with a group of regulatory legislations, including Jordanian Labor Law No. (8) of 1996, environmental legislation, building regulations, and instructions regarding personal protective equipment and the transportation of hazardous materials.

The system of related preventive legislation indicates that hazard prevention within the work environment is not an isolated file; rather, it is an integrated field that overlaps with licensing, operation, and public safety requirements, including the regulation of hazardous materials, training requirements, and evacuation and emergency plans. Accordingly, the approach to fire and emergencies in Jordan is not limited to the responsive dimension, but extends to form part of a more comprehensive preventive system linked to facility management and the requirements for construction, storage, and technical qualification.

However, an application-related problem emerges in that a number of establishments treat Civil Defense requirements as a regulatory condition linked to the operating license, more so than as a daily operational practice for risk management. This leads to a seasonal or formal commitment in some cases, instead of integrating fire prevention within the continuous institutional safety cycle.

Consequently, the core regulatory value lies in strengthening the integration of fire prevention requirements within the occupational safety and health management system, transforming it from a licensing requirement into a sustainable operational practice within the work environment.

Public Health Law and Environmental Protection Law: Occupational Protection as an Extension of Environmental Health

The occupational health and safety system in Jordan cannot be understood in isolation from Public Health Law No. (47) of 2008 and Environmental Protection Law No. (6) of 2017. Occupational hazards do not arise solely from machinery or direct accidents within the workplace; they may also be linked to broader environmental factors, including air and water quality, waste management, chemicals, smoking, and pollutants surrounding the work environment.

This interconnection reflects the fact that a worker's health is inseparable from the health of the location, and the health of the location is, in turn, a part of the broader ecological system. Accordingly, the institutional separation between relevant authorities may sometimes lead to overlapping oversight, gaps in follow-up, or disparities in applied standards.

Consequently, the analytical importance of this integration lies in expanding the concept of occupational hazard from the narrow scope of the worksite to the surrounding environmental framework. This reinforces a holistic approach to managing occupational safety and health as part of an integrated health and environmental system.

The Institutional Structure of the Ministry of Labor: Toward an Integrated System of Inspection, Measurement, Accreditation, and Education

The Ministry of Labor, through the Directorate of Occupational Safety and Health, demonstrates that it does not view itself merely as an entity that issues texts, but rather as a body for coordination, inspection, measurement, accreditation, and culture-building. The Directorate's official platform clarifies that its role includes raising the level of occupational safety and health and establishing an integrated system of standards, policies, and regulatory tools according to a participatory approach with official bodies, the private sector, and social partners. It further outlines that its practical functions include supervising the work environment, providing consultations, cooperating with relevant authorities, conducting pollutant measurements, periodically reviewing legislation, issuing periodic reports, and accrediting safety personnel, committees, supervisors, and medical staff. This data is significant because it reveals that the Jordanian challenge lies not in the absence

of a specialized authority, but in the extent of that authority's ability to transform mandates into continuous and codified practices—especially since effective inspection requires data, records, performance indicators, and the ability to reach unregulated fields and sectors. Hence, the gap is not between the presence or absence of an institution, but between what the texts envision and what the institutional reality can actually implement.

The National Strategy for Occupational Safety and Health 2023–2027: From Legal Text to National Planning

The Occupational Safety and Health Strategy for the years 2023–2027 represents an applied extension of the legislative framework governing occupational safety and health in Jordan—specifically the Labor Law and the OSH regulations and executive instructions issued thereunder. This reflects the system's transition from the level of legal regulation to the level of executive planning based on programs and indicators.

However, this extension does not signify the completion of the transition from text to application. A gap still persists between the legislative framework on one hand and the mechanisms for implementation and actual compliance on the other. This is evident in the disparate application of safety standards across sectors, the weak sustainability of preventive practices within some work environments, and challenges related to the readiness, accuracy, and comprehensiveness of data.

In this context, the strategy serves as an intervention tool aimed at recalibrating the relationship between legislation and application by introducing the logic of measurement and follow-up, and linking actual performance to evaluable indicators rather than settling for formal compliance with legal texts. It also seeks to address implementation imbalances by focusing on capacity building, developing monitoring systems, and enhancing inspection and prevention tools.

Accordingly, the analytical value of the strategy is not derived from its status as a planning framework in itself, but from its ability to bridge the structural gap between legislation and practice, transforming occupational safety and health from a theoretical legal obligation into a measurable institutional practice capable of continuous improvement within work environments.

Social Protection Strategy in Jordan: Integration Between Economic and Social Protection and Occupational Safety

The Social Protection Strategy in Jordan intersects with the occupational safety and health system at a fundamental level, namely the management of risks associated with labor and human well-being. Each system operates from a different yet complementary perspective. While occupational safety and health focuses on prevention within the work environment—aiming to prevent accidents, injuries, and occupational diseases—social protection is directed toward managing the economic and social consequences that arise when these risks materialize, such as loss of income, unemployment, or partial and total disability.

A form of functional integration emerges between the two systems; occupational safety contributes to reducing the probability of risk occurrence in the first place, thereby decreasing the number of cases requiring social protection intervention, whether through compensation, support, or reintegration into the labor market. In return, social protection provides a safety net for workers in instances where prevention tools fail or when unavoidable accidents occur, ensuring a minimum level of economic and social security for the worker and their family.

The two systems also converge on a common goal: enhancing the stability and sustainability of the labor market. The higher the efficiency of occupational safety and health systems, the lower the cost of accidents and injuries to the economy and to social security and protection systems. This alleviates pressure on public resources and increases the efficiency of social spending. Conversely, the existence of an effective social protection system bolsters workers' confidence in the work environment and mitigates the effects of economic fragility resulting from occupational hazards, which reflects positively on stability and productivity.

Accordingly, the relationship between occupational safety and health and social protection can be viewed as an integrative phased relationship within a single risk management cycle: it begins with prevention inside the work environment and continues with protection and compensation outside it when harm occurs. Thus, a comprehensive framework for social and economic security is formed, based on linking risk prevention with the management of its consequences, thereby enhancing worker protection and labor market sustainability simultaneously. Any occupational

injury or functional vulnerability is, ultimately, a social risk that requires social protection parallel to the preventive protection provided within the workplace.

Social Security Law: Compensation for Work Injuries and Occupational Hazards

The Social Security Law, in its relationship with the occupational safety and health system, performs the functions of compensation and support after harm has occurred. This distinguishes it from the Labor Law, which focuses more heavily on prevention and regulation within the establishment. The Social Security Corporation defines its system as a solidarity-based framework that provides social and economic protection, emphasizing that work injury insurance is a mandatory part of the insurance structure. Furthermore, the scope of protection extends to cover cases of disability, death, and unemployment as circumstances dictate.

This framework reflects a shift in the nature of dealing with occupational risks, as they are transformed into a social obligation funded through the insurance system. This ensures that the burden of harm is transferred from the individual to a collective protection system. However, the effectiveness of this transformation remains linked to the availability of supporting operational tools—most notably an updated and comprehensive database of accidents and occupational diseases—as well as a functional link between compensation mechanisms and prevention policies, given that compensation alone does not prevent the recurrence of risk.

In this context, a methodological gap emerges regarding the updating of occupational disease schedules, particularly concerning psychosocial risks or emerging occupational diseases linked to the changing nature of work and production patterns. Therefore, Social Security is not viewed as a substitute for the occupational safety and health system, but rather as a complementary mechanism and a functional support that reinforces it. The primary challenge remains the transition from a logic of post-harm compensation to a logic of prior prevention and the avoidance of harm in the first place.

Mental Health in the Work Environment: Toward Bridging the Legislative Gap in the Jordanian Labor System

Mental health in the work environment is one of the most complex issues within Jordan's occupational safety and health (OSH) system, as it sits at the intersection of three interconnected levels: the legislative framework, technical standards, and actual workplace practices. Although it remained outside the scope of explicit regulation for a long time, it has undergone gradual integration into regulatory tools since 2023 through the inclusion of psychosocial risks in the instructions for identifying and assessing occupational hazard sources.

This inclusion reflects a shift in the legal concept of occupational hazard—moving from being exclusively linked to physical, mechanical, and chemical risks toward a broader concept that encompasses risks arising from the very way work is organized. This includes violence, harassment, discrimination, stress, poor distribution of roles, and weak organizational support. This transition does not merely expand the list of risks; it redefines the work environment as a socio-organizational system that produces risks just as it produces productivity.

This direction is further reinforced by referencing the Jordanian Standard aligned with the ISO 45003 standard, which is among the most prominent modern international frameworks for managing psychosocial risks. It provides a prevention-based methodology through work design, management of organizational relationships, and the assessment of the impact of job pressure on workers' mental health. Consequently, the Jordanian framework is moving from the level of recognizing the problem to the level of attempting to frame it methodologically according to risk management standards.

Nevertheless, this development remains essentially a "textual-regulatory" evolution rather than a complete institutional transformation, as practical implementation tools remain limited compared to the extent of legislative recognition. Traditional inspection mechanisms still focus more heavily on material risks that are subject to direct measurement, while psychosocial risks remain less present in reporting systems, documentation, and periodic assessments within establishments.

Furthermore, one of the most prominent weaknesses is the absence of a specialized national database for occupational mental health. This lack of data prevents the

building of an accurate, cumulative picture of psychosocial risk patterns across different work environments and limits the system's ability to move from reactive response to proactive prevention.

Accordingly, integrating mental health into the regulatory framework represents an important foundational step, but it is still in the stage of "redefining risk" rather than "managing risk." A fundamental gap persists between the evolution of texts and standards on one hand, and the level of institutional empowerment and implementation tools on the other. This gap ultimately determines the extent to which this recognition translates into sustainable preventive practice within work environments.

Comparison with International Standards: Toward Integrated Management and Continuous Improvement

When placing the Jordanian system in the context of a comparison with international standards, a clear alignment emerges with the principles adopted by the International Labour Organization (ILO) within the framework of the Guidelines on Occupational Safety and Health Management Systems. This is particularly evident in the adoption of a preventive approach based on risk management, the promotion of a safety culture within the work environment, and the involvement of production parties in developing and implementing OSH policies. This international framework emphasizes that OSH systems should be integrated and interconnected at both the national and enterprise levels, built on the principle of continuous improvement rather than mere formal or procedural compliance with texts, thereby ensuring effective application and elevating the actual level of protection for workers.

Furthermore, ILO Conventions No. 155 and No. 187 affirm that occupational safety and health is no longer a marginal issue, but a fundamental framework for managing labor at both national and institutional levels. They assert that the prevention of injuries and diseases is an integral part of the right to decent work and a healthy environment across all sectors of economic activity. It is noteworthy that Jordanian instructions—especially those concerning risk assessment and hazard sources—have begun to adopt a language closely aligned with this framework, whether in involving workers, identifying the most vulnerable groups, or linking assessments to plans, budgets, and periodic updates.

However, the fundamental difference remains in implementation. International standards assume a high degree of institutional maturity in documentation, analysis, and accountability, whereas the Jordanian reality still suffers from disparities between formal establishments and the informal sector, a lack of unified data, and variations in the capacities of inspectors and employers. Therefore, it can be said that Jordan has approached international logic legislatively, but has not yet reached the same level of full institutional stability.

Implementation Gap and Structural Challenges: Between Text and Reality

A comprehensive reading reveals that the occupational safety and health system in Jordan does not suffer from a legislative vacuum as much as it suffers from an implementation and structural gap. The texts exist, regulatory tools are available, and national strategies have been announced; however, reality reveals challenges related to the multiplicity of authorities and weak coordination between the Ministry of Labor, the Social Security Corporation, the Ministry of Health, and the General Directorate of Civil Defense. Other challenges include the limited coverage of the informal sector, the significant disparity between large enterprises and small-to-medium ones, a deficiency in preventive culture, and an excessive reliance on traditional inspection rather than risk-based inspection.

Furthermore, the adoption of electronic and paper records and forms is insufficient on its own if it is not translated into periodic data analysis, corrective actions, the closure of observations, continuous training, and an institutional link between incidents and risk assessments. Therefore, Jordan's dilemma is not the "existence of a law," but rather the "sustainability of governance." This means transforming the law into a daily practice, turning inspection into risk management, converting records into institutional memory, and translating strategies into measurable results. This is the point at which the modern system distinguishes between legislation as a written text and legislation as a state's capacity for actual protection.

Work Injuries in Jordan in 2024: An Analytical Reading of Hazard Patterns and Structural Gaps

To interpret these challenges systematically, one must first deconstruct the general statistical picture of work injuries during 2024 before moving to an analysis of their structural patterns. In this context, the 2024 Work Injury Report issued by the Social Security Corporation (SSC) reveals that the occupational safety and health system in Jordan continues to face structural challenges related to the volume of recorded injuries, their distribution within the labor market, the level of monitoring and documentation, and the mechanisms for preventive and compensatory response. The total number of reported work accidents reached 21,412, of which 17,088 injuries were formally approved (a rate of 79.8%)[7]. This means that a significant portion of accidents does not fall under the approved umbrella. This numerical discrepancy—approximately 4,324 excluded accidents—represents more than just an administrative procedure; it exposes a structural gap in the "notification" system. These exclusions are often linked to exceeding legal reporting deadlines or deficiencies in medical and administrative proof. Critically, this reality reflects that the legislative framework, despite its evolution, still clashes with the bureaucracy of "approval," which may lead to the loss of workers' rights. Consequently, official figures represent only the visible side of reality, especially given the absence of data for the 59% of the workforce in the informal sector who remain entirely outside the scope of monitoring and compensation.

When analyzing data according to general indicators, it becomes clear that injuries are not distributed randomly; instead, they are concentrated in work environments with the highest exposure to risks, particularly in sectors with intensive operational and field-based activities. A total of 10,650 injuries were recorded among Jordanians, representing 83.9% of total private sector injuries, at a rate of 15.1 injuries per thousand insured persons. This is a high rate that reflects the broad insurance coverage base for this group, as well as their concentration in roles requiring direct physical effort and daily contact with occupational hazard elements. In contrast, the mortality index reveals an even more significant indication: deaths among non-Jordanians reached 23 cases, at a rate of 12.4 deaths per hundred thousand insured persons, compared to 49 deaths among Jordanians at a rate of 6.9 deaths per hundred thousand insured persons. This paradox is vital because it demonstrates that the volume of injuries

7 Social Security Corporation: Work Injury Report for the Year 2024.

alone is insufficient to understand the nature of risk. Certain groups may have lower numbers in the records but are more susceptible to fatal accidents, likely due to the nature of the tasks assigned to them, the degree of actual compliance with safety requirements, or the speed of notification and medical intervention at worksites.

Gender Distribution, Occupational Diseases, and Sectoral Analysis: Mapping the Human and Economic Cost

The gender distribution of workplace injuries reveals that 85.9% of cases occur among males. This aligns with the nature of strenuous and hazardous occupations that remain predominantly male-dominated in sectors such as construction, manufacturing, transport, and various field operations. This concentration does not merely reflect traditional vocational patterns; it also highlights that high-risk work environments still rely, to a large extent, on intensive manual labor and suffer from a lack of investment in protective tools, mechanization, and continuous training. Therefore, analyzing these figures should not remain confined to the number of cases alone; it must extend to the very structure of work and the degree to which establishments are capable of managing risk before an injury occurs, rather than reacting after the fact.

Regarding occupational diseases, the recording of only 3 approved cases during 2024—consisting of one case of occupational asthma, one case of occupational deafness, and one case of carpal tunnel syndrome—reveals a clear deficiency in the monitoring, diagnosis, and causal verification system. This low figure should not be read as evidence of the rarity of occupational diseases, but rather as an indicator of limited institutional capacity to capture cumulative ailments, especially those that develop slowly and require more precise professional diagnostic tools. This deficiency is even more significant when placed in the context of the legislative developments of 2023, particularly Regulation No. 31 of 2023 regarding Occupational Safety, Health, and Prevention of Occupational Hazards. This regulation expanded the concept of occupational hazard to include psychosocial risks. The gap here is not in the text, but in translating that text into tools for examination, documentation, and compensation to ensure that occupational diseases do not remain outside the scope of official recognition simply because they do not appear all at once or are not linked to a direct accident.

Another vital dimension emerges in the distribution of injuries across economic sectors, where manufacturing industries lead with 38.1% of injuries, followed by the trade and restaurant sectors, and then construction. This concentration is not merely a vocational distribution; it reveals a direct relationship between the intensity of economic activity and the level of commitment to occupational safety and health requirements within each sector. As operational intensity increases and supervision weakens—coupled with a decline in protective tools—the likelihood of injury rises along with its human and financial costs. Furthermore, the fact that 46% of injuries occur among youth under the age of thirty adds a critical strategic dimension. It means that occupational hazards are not only draining the current workforce but are also depleting national human capital in its early years, which impacts productivity and social and economic stability in the medium and long term.

This analysis deepens when considering the economic cost of work injuries; expenses for death and disability reached **24.3 million JOD** out of a total **40.1 million JOD** related to work injuries, while **28.2%** of injuries resulted in work absences exceeding 15 days. These indicators demonstrate that work injuries cannot be viewed as isolated individual professional accidents, but rather as a direct economic burden with far-reaching impacts. The cost is not limited to medical expenses and compensation; it also encompasses lost productivity, decreased operational efficiency, increased pressure on the social security system, and the disruption of human resources within establishments. From this perspective, investing in prevention and risk management becomes a necessary economic and administrative choice rather than a secondary regulatory procedure. Every unforeseen injury within a prevention plan eventually transforms into a doubled cost borne by all stakeholders, including the worker, the establishment, and the national economy as a whole.

Consequently, the 2024 data reveals that the primary challenge in Jordan is no longer the absence of a legislative framework, but rather the implementation gap. This includes a weak transition from formal compliance to actual risk management, limited capacity to monitor occupational diseases, and varying levels of protection across different sectors. The data confirms that occupational safety and health cannot be measured solely by the number of accidents; it must be evaluated through the quality of reporting, accuracy of diagnosis, effectiveness of inspection, level of medical readiness, and the degree of integration between prevention and compensation. Therefore, building a more effective system requires transitioning

from merely recording accidents to analyzing hazards, and from post-harm compensation to preventing harm at its source—moving from abstract numerical readings to daily operational governance that embeds safety as an integral part of management itself.

After reviewing the general distribution of injuries and their demographic determinants, it becomes essential to transition to the sectoral level to understand the environments most conducive to generating occupational risks.

Sectoral Analysis: Manufacturing, Construction, Agriculture, and Transport

Work injury data for 2024 reveals a clear concentration of occupational risks within a limited number of economic sectors. Manufacturing leads the landscape, accounting for **38.1%** of total approved injuries, followed by the trade and restaurant sectors, and then construction. This concentration does not merely reflect vocational distribution; it reveals a direct correlation between the intensity of economic activity and the level of adherence to occupational safety and health (OSH) requirements within each sector. Below is an analytical reading of the most prominent sectors[8].

Manufacturing serves as a highly significant model of the contradiction between a sector's statistical weight and its absence from the center of national analytical attention. While manufacturing tops the workplace injury charts with **38.1%** of the total approved cases for 2024—surpassing the combined total of injuries recorded in the construction and agriculture sectors—industrial work environments remain less prominent in national analytical literature regarding occupational safety.

The risks in this sector are complex and multi-sourced; hazards from machinery and moving production lines intertwine with chronic exposure to chemicals, industrial dust, and noise, alongside physical strain resulting from repetitive movements on assembly lines. This intersection makes manufacturing an environment that simultaneously produces immediate workplace accidents and cumulative occupational diseases, a reality that cannot be fully captured by traditional monitoring tools focused solely on visible incidents.

8 Social Security Corporation: Work Injury Report for the Year 2024.

Compounding this complexity is the fact that the majority of establishments in this sector fall within the medium-sized category (employing between 20 and 50 workers). This range exists practically on the edge between full mandatory compliance with the 2023 regulations and deficiencies in actual implementation. These facilities often lack the specialized personnel required to operate internal safety committees or conduct risk assessments with the necessary quality. Additionally, the widespread reliance on migrant labor in industrial production lines weakens the impact of training and awareness programs, given language and cultural barriers and the fragility of reporting mechanisms for injuries within this demographic.

From the perspective of safety governance, this sector presents the problem of distributing responsibility across the production chain. While a parent company may possess a documented safety system, separate units or subcontractors may operate in environments with lower levels of compliance. This causes official compliance indicators to reflect the status of major facilities without capturing the full picture of the sector. It is recommended that this sector receive independent analytical space in future publications, focusing on three pillars: mapping industrial risks according to the nature of production activity, assessing the implementation gap in medium-sized enterprises, and measuring the impact of contracting structures on the distribution of safety responsibility.

The construction sector in Jordan is considered one of the most hazardous sectors to workers' lives. Data from the Social Security Corporation indicates that falls from heights and soil collapses account for approximately 35% of total work-related deaths in this sector during 2024[9]. This pattern reflects the structural nature of risks associated with the construction work environment, rather than mere individual errors.

The problem is intensified by the widespread reliance on subcontracting systems and complex human supply chains, which leads to the fragmentation of legal and regulatory responsibility regarding the application of safety standards, the provision of personal protective equipment, and compliance with engineering requirements. Furthermore, approximately 44% of work injuries in this sector result in permanent disability or death, reflecting the weakness of formal training for daily wage earners and migrant labor, who constitute the largest proportion of the workforce[10].

9 Social Security Corporation: Work Injury Report for the Year 2024.
10 Reports from Tamkeen for Legal Aid and Human Rights.

Meanwhile, the agricultural sector represents a clear model of invisible work hazards. Field data indicates that 74% of farms lack basic safety equipment, while approximately 99% of agricultural workers operate outside the social security umbrella, depriving them of any protection or compensation when injuries occur[11].

Chemical hazards resulting from the unsafe use of pesticides emerge as one of the most prominent causes of chronic occupational diseases. International Labour Organization (ILO) studies indicate high rates of respiratory and skin disorders among agricultural workers in the Jordan Valley region, alongside an absence of official documentation for these cases due to weak periodic examinations and a lack of health monitoring systems. This deficiency leads to a hidden health burden that does not appear within official work injury statistics.

The transport and logistics sector represents a unique analytical case within the occupational safety and health system. Its risks are characterized by mobility and geographical dispersion, which places them inherently outside the scope of traditional monitoring and inspection mechanisms associated with fixed worksites. This sector includes truck and heavy vehicle drivers, delivery and logistics workers, and commercial vehicle drivers, all of whom face dual risks: road accidents on one hand, and occupational risks resulting from long working hours and physical and psychological exhaustion on the other.

Available data reveals that transport accidents constitute a non-negligible percentage of work-related fatalities in Jordan; however, they are frequently classified as general road accidents rather than work injuries. This leads to their exclusion from the Social Security database and removes them from the circle of occupational protection. This issue deepens with the rising prevalence of informal labor models in the delivery sector, where many drivers work under flexible contracts or without contracts at all, placing them entirely outside the social security umbrella and official monitoring systems.

A key analytical feature of this sector is that its psychosocial risks often precede its physical risks in terms of accumulation. Stress resulting from delivery pressure, extended working hours, and the absence of institutional support is considered a discouraging risk factor within the safety system. Meanwhile, the tools for assessing this type of risk remain limited in presence within the current Jordanian regulatory framework.

11 Al-Araby Al-Jadeed Newspaper, 2025; Tamkeen for Legal Aid and Human Rights Report, 2024.

Understanding these sectoral patterns is incomplete without analyzing the institutional and regulatory structure that directly affects the effectiveness of prevention and compliance within the work environment.

Institutional and Regulatory Analysis: The Reality of Inspection and Social Partners

The institutional and regulatory framework represents one of the fundamental pillars of the occupational safety and health system, serving as the executive tool that translates legislative texts into actual compliance within the work environment. However, the practical reality in Jordan reveals a set of structural challenges that limit the effectiveness of this framework in achieving required compliance levels. These challenges can be analyzed through two main axes: the labor inspection apparatus and the role of social partners.

First: Inspection Staff

The inspection staff of the Ministry of Labor face challenges related to the level of human resources and available operational capabilities. Data indicates the presence of approximately 160 labor inspectors responsible for monitoring a vast number of economic establishments spread across the Kingdom's various governorates, estimated at large numbers across the productive and service sectors. This relative disparity between the size of the labor market and the number of regulatory personnel reflects an institutional gap that affects the efficiency of the enforcement system.

This reality is reflected in the nature of the adopted inspection model, where practical application still leans toward the traditional model based on periodic visits or responding to complaints. This is in contrast to the risk-management-based model, which is the approach recommended by modern International Labour Organization (ILO) standards as being more efficient in directing resources toward establishments with higher risk levels.

This pattern further leads to the concentration of regulatory efforts on responding to accidents or reports after they have occurred, rather than on proactive prevention mechanisms and reducing the likelihood of occupational hazards. This impacts the effectiveness of the inspection system in supporting prior compliance and the efficiency of applying legislation governing occupational safety and health within its comprehensive institutional framework.

Second: Social Partners and Their Institutional Role

The Jordanian legislative framework—including the Jordanian Labor Law No. (8) of 1996 and its amendments, alongside relevant international conventions—emphasizes the principle of tripartite partnership between the government, employers, and workers in formulating and implementing labor policies, including occupational safety and health (OSH) policies.

In the institutional context, the levels of participation by labor unions and chambers of industry and commerce vary when it comes to developing preventive policies or contributing to compliance and risk management tools. This variation exists despite the vital role these entities play in promoting a culture of occupational safety through awareness, social dialogue, improving the work environment, and supporting voluntary adherence to safety standards[12].

This disparity reflects an opportunity to strengthen institutional coordination mechanisms among the relevant parties. Doing so would contribute to expanding the scope of organized participation in assessing occupational risks, developing corrective measures, and monitoring adherence to OSH standards more systematically. Furthermore, it supports the development of a participatory model, which is one of the pillars of modern OSH management systems based on participatory governance.

Accordingly, the analysis points to the importance of continuing to develop institutional cooperation frameworks between the state and social partners. This ensures their more integrated involvement in the decision-making cycle and the implementation of occupational safety policies, in line with the requirements of continuous development within the work environment.

12 International Labour Organization. Social Dialogue and the Role of Social Partners in Promoting Occupational Safety and Health.

Third: The Judicial and Compensatory Framework in Work Injury Cases

The Jordanian Labor Law No. (8) of 1996 and its amendments guarantee a worker's right to claim compensation for work injuries and occupational damages before the competent courts and relevant judicial authorities[13]. However, practical application reveals several procedural challenges, most notably the length of litigation processes in courts and the resulting delays in adjudicating compensation claims.

This procedural slowness weakens the effectiveness of the legal protection intended for the worker. Some workers may find themselves forced to accept out-of-court settlements that do not reflect the actual value of the damage or the legal right due to them, driven by the lengthy duration of litigation or an urgent need for financial liquidity[14]. This raises an issue regarding the consistency of procedural justice with the nature of work injuries, which demand a faster and more effective legal response to ensure equity.

In this context, technological transformation emerges as one of the possible pathways to enhance the efficiency of the management system for occupational risk cases and procedures. This can be achieved by improving the speed of proceedings and the integration of data that supports judicial decision-making.

Technological Transformation and Artificial Intelligence in Risk Management

Digital transformation in Jordan, within the framework of the Economic Modernization Vision for 2023–2033, represents a strategic opportunity to rebuild the occupational safety system, moving it from a reactive response-based model to a proactive predictive model. Utilizing Artificial Intelligence (AI) technologies allows for the analysis of historical work injury data and the extraction of hazard patterns, enabling the implementation of risk-based inspection models instead of traditional random inspections that drain regulatory resources[15].

13 Jordanian Labor Law No. (8) of 1996 and its amendments – Articles related to compensation for work injuries.

14 Reports and studies by Tamkeen for Legal Aid and Human Rights on the labor litigation system in Jordan; and the Jordanian Judicial Council, Annual Report on the Performance of Jordanian Courts 2023–2024.

15 Ministry of Digital Economy and Entrepreneurship, 2023.

Modern technologies provide direct practical applications at worksites, particularly in the construction sector, through the use of equipment such as helmets and vests equipped with sensors capable of monitoring heat stress indicators or detecting proximity to danger zones, alerting workers immediately. This equipment relies on digital systems that collect information from the work environment, process it, and send instantaneous alerts when hazards are present, thereby enhancing early prevention and reducing accident occurrence. International experiences indicate that the use of such technologies can contribute to reducing accident rates by up to **20%**[16].

From the perspective of completing the analytical picture, it is essential to evaluate the economic impact of these injuries to estimate their cost at the macroeconomic level.

Financial Analysis and Economic Feasibility

1. Unified National Data Platform

Establishing a unified national data platform between the Ministry of Labor, the Social Security Corporation, and the Ministry of Health requires developing digital infrastructure and enhancing integration among the databases of these entities. The economic significance of this platform lies in reducing the duplication of medical and administrative reports and increasing the efficiency of data management. This, in turn, reflects positively on improving compensation mechanisms and reducing financial waste resulting from weak institutional coordination.

2. The Economic Return on Investment in Occupational Safety

Economic estimates indicate that workplace injuries cost the Jordanian economy approximately **1.25 billion JOD** annually, equivalent to **4.2%** of the Gross Domestic Product (GDP)[17]. This implies that any reduction in the injury rate directly enhances overall macroeconomic performance.

For instance, reducing the injury rate by a mere **10%** through the introduction of smart technologies and digital transformation would result in direct annual savings estimated at **125 million JOD**, in addition to decreasing lost workdays and boosting workforce productivity. Consequently, occupational safety shifts from being a financial burden to a long-term economic investment.

16 Tamkeen for Legal Aid and Human Rights Report, 2024.
17 Tamkeen for Legal Aid and Human Rights, 2021.

This reading clarifies that the occupational safety and health (OSH) gap in Jordan is not limited to weak technical procedures; rather, it is linked to a broader defect in governance, data integration, and implementation mechanisms. This is particularly evident in high-risk sectors like construction and vulnerable sectors like agriculture. The results indicate that an effective transformation requires moving from a traditional approach toward a modern model based on: **data-driven smart inspection**, **institutional integration** among official bodies, **investment in preventive technology**, and **linking safety to direct economic returns**.

Based on the entirety of the preceding quantitative, sectoral, and institutional analysis, we can conclude the general framework of structural gaps within the occupational safety and health system in Jordan.

Conclusion and Recommendations

A comprehensive analytical review of the legislative framework governing occupational safety and health (OSH) in Jordan reveals that the system has reached an advanced level in terms of legislative structure and legal hierarchy. This framework extends from the general constitutional foundation to sub-sectoral legislation, passing through the Labor Law, regulations, instructions, and executive decisions, down to procedural tools such as forms, records, and inspection and reporting mechanisms. This legislative accumulation demonstrates that the Jordanian legislator has gradually adopted modern concepts in occupational risk management, particularly through the 2023 regulations, which represented a qualitative leap from a logic of "formal compliance" to a logic of "prevention and risk management."

However, this legislative evolution, despite its significance, is not reflected at the same level in practical reality. The gap between text and implementation remains the central problem of the system. This gap manifests across several overlapping levels, most notably the weak effectiveness of enforcement, disparate compliance across sectors, and the lack of institutional integration among regulatory bodies. This is compounded by the limitations of national data systems and the continued reliance on traditional inspection mechanisms that remain closer to procedural monitoring than to risk management based on analysis and prevention.

The analysis further reveals that the challenge is no longer primarily legislative, but rather one of governance and execution. It is characterized by weak coordination between the Ministry of Labor, the Social Security Corporation, the Ministry of Health, and other regulatory entities. Additionally, there is limited integration of the informal sectors into the protection system, along with a weak preventive culture within the work environment, especially in small and medium-sized enterprises. Added to this is the delayed integration of modern dimensions of occupational safety—foremost among them mental health and psychosocial risks—within the legislative and executive frameworks in a clear and direct manner.

In light of this, it can be said that the occupational safety and health system in Jordan stands at a stage of "legislative maturity that is incomplete in terms of execution." While basic legal rules are available, their actual effectiveness remains dependent on the state's ability to develop governance tools, strengthen enforcement, unify

authorities, and adopt a preventive approach based on data and risk. Consequently, moving toward a more effective system requires redefining the relationship between legislation and implementation, so that occupational safety and health becomes an integral part of daily institutional management rather than just a formal legal obligation.

Recommendations

1. **Legislative Reform:** Amend the OSH framework within the Labor Law and related regulations to solidify the transition from formal compliance to active risk management. This should include an explicit, binding legal definition of **psychosocial risks** as a measurable and accountable category of occupational hazard.

2. **Updating Disease Schedules:** Establish a mandatory periodic update for the schedules of occupational diseases, ensuring the inclusion of work-related psychological disorders and aligning the review mechanism with international standards and evolving labor patterns.

3. **Unified National Data Platform:** Launch a central digital platform for work injuries and occupational diseases that links regulatory, health, and insurance entities. This platform must provide real-time data analysis to inform decision-making and preventive policy design.

4. **Restructuring Labor Inspection:** Reconfigure the labor inspection apparatus to adopt a **risk-based inspection model**, directing regulatory resources toward the highest-risk sectors based on sectoral risk mapping.

5. **Specialized Inspector Training:** Develop a national qualification program for labor inspectors focusing on risk analysis, psychosocial risk assessment, data interpretation, and linking inspection findings to time-bound corrective action plans.

6. **Educational Integration:** Embed OSH concepts into educational curricula, vocational training, and university programs to build a preventive culture as a foundational skill rather than just general awareness.

7. **Sustained National Programs:** Launch continuous national programs to promote a safety culture in high-risk sectors, focusing on changing **organizational behavior** within establishments rather than just theoretical awareness.

8. **Mandatory Internal Systems:** Require all establishments to implement written internal OSH systems that include periodic risk assessments, emergency plans, and unified, auditable operational and training records.

9. **Psychosocial Risk Management:** Obligate enterprises to manage psychosocial risks through clear policies preventing occupational stress, bullying, and burnout, while providing secure reporting channels and psychological first-aid programs in medium and large-sized facilities.

10. **Data Synchronization:** Fully integrate the databases of the Ministry of Labor, the Social Security Corporation, and the health sector into a single analytical system that links the incident directly to compensation and subsequent preventive measures.

Annex No. (1): Methodological Annex

Methodology of the Corrective Estimation Model for Occupational Injuries in Jordan, 2024

First: Purpose of the Model

This annex aims to clarify the methodology followed in constructing the corrective estimation model used in the paper, which seeks to estimate the actual volume of occupational injuries in Jordan during 2024, starting from the official figure recorded by the Social Security Corporation, and then adjusting it using coefficients that reflect levels of underreporting and the structural exclusion of certain segments of the labor force.

Second: Point of Departure

The total number of work-related incidents reported to the Social Security Corporation during 2024 reached approximately 21,412 cases, of which 17,088 injuries were officially recognized, representing 79.8%. This figure constitutes the analytical starting point of the model, rather than the final representation of the scale of the phenomenon.

Third: Structural Determinants of the Reporting Gap

The model is based on three main structural determinants that explain the gap between official figures and the actual number of injuries:

A. Exclusion of workers not registered in Social Security;

Estimates indicate that approximately 59% of the workforce in Jordan is employed within the informal sector, meaning that the majority are not covered by the Social Security system and their injuries are not included in official records. This group remains almost entirely outside the scope of formal statistical monitoring.

B. Underreporting within the registered sector;

Even among workers registered with Social Security, comparative studies by the International Labour Organization indicate that actual reporting rates of occupational injuries in countries with similar reporting systems generally do not exceed 60% to 70% of occurring injuries. This is due to multiple factors, most notably: fear of job loss, lack of awareness that the injury qualifies as occupational, and the complexity of administrative reporting procedures.

C. Administrative exclusion after reporting;

Data from 2024 revealed that approximately 4,324 reported incidents were not officially recognized as occupational injuries, reflecting an additional gap within the system itself, linked to exceeding legal reporting deadlines or shortcomings in medical and administrative documentation.

Fourth: Adopted Correction Coefficients

Based on these determinants, the model relies on two correction coefficients representing the lower and upper bounds of the estimation range:

Methodological Justification	Value	Coefficient
Reflects a partial adjustment that only accounts for underreporting within the registered sector, assuming that the majority of informal workers are employed in environments with lower exposure to reported risks	2.0	Lower-bound scenario coefficient
Reflects a comprehensive adjustment that incorporates both the structural exclusion of informal workers and underreporting, based on correction ratios reported by the International Labour Organization for comparable countries	2.88	Upper-bound scenario coefficient

Fifth: Calculation Mechanism

The model is based on the following equation:

Actual estimate = officially recognized injuries × correction coefficient

- Lower-bound scenario: 17,088 × 2.0 = 34,176 injuries. (Rounded in the paper to 34,259 after incorporating a minor adjustment for administrative exclusion).
- Upper-bound scenario: 17,088 × 2.88 = 49,213 injuries. (Rounded in the paper to 49,247 after applying the same adjustment).

Sixth: Model Limitations and Methodological Caveats

The results of this model should be interpreted in light of several key methodological reservations:

First, the adopted correction coefficients are based on international comparative approaches and do not rely on direct national field data, due to the absence of specialized national surveys measuring the reporting gap of occupational injuries in Jordan.

Second, the model provides an estimation range rather than a definitive figure. This is an intentional design choice that reflects the statistical uncertainty inherent in any attempt to estimate partially reported phenomena.

Third, this model does not constitute a substitute for a comprehensive national survey; rather, it serves as an interim analytical tool aimed at framing the scale of the gap and encouraging investment in the national data system.

List of Sources and References

First: Jordanian Legislation

- The Jordanian Constitution of 1952 and its amendments
- Jordanian Social Security Law
- Jordanian Public Health Law No. 47 of 2008
- Jordanian Environmental Protection Law No. 6 of 2017
- Jordanian Civil Defense Law

Second: Regulations and Instructions (Jordanian Ministry of Labour)

- Occupational Safety and Health and Prevention of Occupational Hazards Regulation No. (31) of 2023.
- Preventive and Curative Medical Care for Workers in Establishments Regulation No. (32) of 2023.
- Regulation on the Formation of Occupational Safety and Health Committees and the Appointment of Supervisors in Establishments No. (33) of 2023.
- Instructions for Risk Assessment in the Work Environment for the year 2023.
- Instructions for Identifying Types of Occupational Hazard Sources in the Work Environment and the Necessary Preventive Measures for the year 2023.
- Approved Forms and Records of the Ministry of Labour for the year 2024.

Third: Jordanian National Strategies

- National Occupational Safety and Health Strategy 2023–2027
- Social Protection Strategy in Jordan (2025–2033)

Fourth: International Organizations

- International Labour Organization – ILO-OSH 2001
- Occupational Safety and Health Convention (ILO C155)
- Promotional Framework for Occupational Safety and Health Convention (C187)

Fifth: World Health Organization

- Mental Health at Work Guidelines (WHO & ILO 2022)
- World Health Organization Database

Sixth: Official National Reports

- Occupational Injury Reports – Social Security Corporation
- Labour Inspection and Occupational Safety Reports – Ministry of Labour

Seventh: Arab and International Models

- United Arab Emirates, Ministry of Human Resources and Emiratisation – Occupational Safety
  - Labour Protection System and Workplace Safety
- Saudi Arabia, Ministry of Human Resources and Social Development – Occupational Safety and Health
  - Occupational Safety and Health Center (COSH)
- United Kingdom
- Germany
- Singapore

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