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Occupational Health and Safety Implementation Issues in Egypt / مشكلات تطبيق الصحة والسلامة المهنية في مصر

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THE PUBLIC POLICY HUB

Occupational Health and Safety Implementation Issues in Egypt

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2019

The opinions expressed in this paper are those of the authors and do not reflect AUC Policies or views.
They are published to stimulate further dialogue on issues and challenges facing Egypt
in an attempt to expose graduate students to practical policy solutions.

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List of Acronyms

| | |
|---------------|---|
| OHS | Occupational Health and Safety |
| CAPMAS | Central Agency for Public Mobilization and Statistics |
| SD | Social Dialogue |
| NSD | National Social Dialogue |
| ILO | International Labor Organization |
| FEI | Federation of Egyptian Industries |
| ICT | Information and Communication Technology |
| OSHA | United States' Occupational Safety and Health Administration |
| INSHPO | International Network of Safety and Health Practitioner Organizations |

Executive Summary

Occupational Health and Safety (OHS) is crucial because it provides protection for workers from injuries, and employers from huge damages. Work accidents cause huge losses which represent around 3.94 percent of the world's annual GDP according to the International Labor Organization (ILO). Around 2.78 million occupational deaths are recorded every year worldwide, of which 2.4 million are related to occupational injuries (ILO). Although the Egyptian constitution protects workers' health and safety, the recent numbers published by ILO illustrate that there are more than 273,000 workers who have been injured and/or affected by occupational accidents in 2015.

This policy paper addresses the current OHS implementation issues in Egypt and situates them within a global context that comprises agreed upon international safety regulations, conventions and management systems as well as international certification such as the ISO. Through a review of the implementation process of OHS in Egypt, complex legal, institutional and technical issues arise, illuminating the deficiencies present in the current OHS policy framework. This paper delves into the shortcomings present in the documentation and inspection processes that represent a cornerstone of the overall implementation of OHS standards whether by the government or the private sector.

The policy paper then proposes various policy options that have been globally tried and tested to be the most effective in realizing better OHS national frameworks such as embarking on a comprehensive social dialogue scheme that includes the government, private sector and employees, using ICT and automated methods for inspection and documentation, and encouraging educational programs that provide proper scientific background for OHS practitioners and professionals. This is also coupled with international standards, including the ISO, that have constituted a hallmark of the OHS global framework.

The paper finally recommends several policies to be adopted by Egyptian policymakers in order to protect both workers' and employers' interests as well as realize a safe work climate. These recommendations include:

- 1- Providing OHS education and training for multiple levels and stakeholders across specializations and levels of management at the workplace.
- 2- Adopting a comprehensive legal framework for conducting a national social dialogue, and the adoption of the latest international standards such as the new ISO 45001.
- 3- Expanding the use of information and communications technologies to improve the methods of inspection and documentation.

I. Background:

- Global Context:

Occupational Health and Safety (OHS) is crucial for employers, workers, and governments. Workplace accidents affect organizations all over the world and can cause serious damage to the assets, resources, and reputation of the affected organizations. Organizations have a legal duty to protect workers from accidents and health problems. However, according to the most recent International Labor Organization (ILO) statistics, 2.78 million occupational deaths are recorded every year, of which 2.4 million are related to occupational injuries. The losses in terms of compensation, health-care expenditure, interrupted production, and workdays lost, represent around 3.94 percent of the world's annual GDP (ILO).

In addition, employers face costly early retirements, loss of skilled staff, absence, and high insurance premiums.

- The National Context:

Nowadays, Egypt is focusing on upscaling the industrial sector as the main driver of national sustainable development. Certainly, the workforce or human labor is the most valuable element in industries especially when the operational health and safety structure is not properly functioning. The current Egyptian labor force exceeds 31.5 million workers, according to a World Bank report published in 2018. The Egyptian constitution stipulates that the state is responsible for the protection of workers and their health and safety. However, recent numbers published by ILO show that there are more than 273,000 workers who have been injured and/or affected by occupational accidents in 2015, which could have a negative effect on the economy, reduce the productivity of industries and in return affect the level of international exports. The loss of well-trained workers, absences, expensive compensations, health-care expenses and interrupted production exacerbate the problem from being a health issue to being one that relates overall to sector efficiency and productivity as well as compliance with international standards.

Various OHS regulations are enshrined in national laws as well as international conventions. An expert in the field and a managing director of a company that conducts training on occupational safety estimated the level of commitment to OHS in Egypt to be at 40% as “the best case estimate.” This was attributed to the relatively “weak” understanding of the culture of OHS in Egypt compared to other countries and contexts that give greater attention to the matter and even have specialized education, professionals and schools for OHS. It was further stressed that the economic cost of failing to abide by OHS regulations is quite high (Al-Masry Al-Youm, 2019). The material cost of repairs as a result of fires, for example, as well as the immeasurable cost of human losses, burden the employer as it affects the levels of productivity and efficiency of the workforce.

These losses and costs highlight the ongoing need to address the causes of work accidents and injuries, and to find effective policies to reduce them.

Reviewing the current situation of OHS in Egypt shows complex issues pertaining to the implementation of OHS laws and regulations whether by the government or the private sector.

II. Problem Statement:

1. Implementation Issues of OHS “Government Level”:

Following the Egyptian Labor Law, the Ministry of Manpower established an official specialized agency for inspection to ensure the fulfillment of the conditions of occupational safety and health stipulated in national laws and regulations. Labor law regulates inspectors’ training, duties, and jurisdiction. Among other authorities, inspectors have the ability to recommend the closure of the institution in the case of a danger threatening the safety of the establishment, workers’ health, or the safety of the work environment.

However, the inspection of workplaces in Egypt suffers from legal, institutional, and technical problems. The execution process is both slow and difficult. Some sanctions are ineffective because they are disproportionate to the offense, and some violations of legal duties are not punishable. Meanwhile, the labor law excludes workplaces that employ fewer than 50 persons from the work injuries record. This potentially leaves out a significant number of SMEs that tend to employ fewer people, and also excludes small-scale industries classified as part of the “informal sector” which make up more than half of the private sector (Mada Masr, 2016). Furthermore, the institutional and technical problems include the lack of clear strategy, the lack of autonomy of the inspectors, and the absence of sufficient funds and competent inspectors and technical equipment among other factors.

There is also a trend to focus on large private and public firms. Data from the Ministry of Manpower indicated the priority to inspect large firms, private or public, because accidents in those establishments “have more serious consequences,” as put by the then-Assistant Minister of Manpower for Safety Gamal Sorour, who later became minister in 2015. Given the ministry’s shortage in staff, there is a logic to this prioritization. The current minister of manpower affirmed this deficiency in a recent OHS forum in Kafr al-Sheikh when he said that there was a huge gap between the number of institutions (around 3 million) and the number of safety inspectors (only 1,400) (Al-Masry Al-Youm, 2019).

Fatma Ramadan, a workplace safety inspector at the Ministry of Manpower also affirmed this problem; mainly the shortage in staff, which ultimately affects the implementation of the law with regards to inspection. Inspectors from different backgrounds such as medical, engineering, science, etc., are needed for the job as it draws on various specializations; however, fewer people apply for the job due to the relatively low pay (Mada Masr, 2016).

2. Implementation Issues of OHS “Private Sector Level”:

Initial meetings with members of the Federation of Egyptian Industries indicated that there are high costs attributed to the implementation of OHS regulations. The process of filing complaints can also be time-consuming, and therefore, follow-up along the complaint-chain is lacking in some cases. In addition, fines imposed as a penalty for those who commit violations are mostly “inadequate,” thus failing to push employers towards a more serious level of commitment. The Federation of Egyptian Industries (FEI) also voiced this concern regarding the stipulation of petty fines as a penalty.

Reviewing the current situation, however, shows a problem concerning the documentation and the inspection as part of the internal safety management.

- Documentation:

According to the labor law, industrial institutions that hire more than 15 workers and non-industrial institutions that employ more than 50 workers are required to send their tallied work injuries every six months to the Ministry of Manpower’s offices spread out nationwide. The ministry is responsible for gathering the necessary data and keeping track of the number of work injuries in both the public and private sectors. Then, it categorizes the injuries according to sector, gender, age, geographic location, and other categories deemed of interest. Finally, it prepares the reports and publishes them through the state’s Central Agency for Public Mobilization and Statistics (CAPMAS). According to the latest report published by CAPMAS, the number of documented work-injuries in 2018 is 14,368, marking an increase of 6.1% compared to the year before (Al-Ahram, 2019).

Even though recently published reports indicate that the overall number of injuries have been steadily decreasing since 2014, which saw a total of 16,902 injuries compared to 2017 with 13,541 documented cases, they do not reflect the real image. However, the representative of the Ministry of Manpower states during an interview that these reports do not reflect the actual numbers. The actual figure is significantly higher than the published one, but employers do not care much about the documentation issue. In addition, information from a workplace safety inspector at the Ministry of Manpower indicates that “occupational deaths and injuries are massively underreported” (Ahram Online, 2013). Surprisingly, according to the ILO, the rate of non-fatal occupational injuries in Egypt is 862.6 per 100,000 workers, which means that the total number of non-fatal injuries in Egypt exceeded the 270,000 accidents in 2015. Meanwhile, the rate of fatal occupational injuries is 10.7 per 100,000 workers, which means more than 3000 fatal accidents. Accordingly, the officially published numbers represent around 5% of the numbers released by the ILO.

- Internal Safety Management System:

A key component of the internal safety management systems is inspection. Safety Management systems depend on inspection as a method to ensure the commitment of all levels of employees to the safety rules. It is one of the most widely used methods to ensure the safety in workplaces due to its successful results in reducing workplace

accidents. Some quantitative studies pointed out the significant impact of regular company safety inspections in reducing the incidence rates of illness and injury at the workplace compared to companies without similar measures (Abudayyeh,

Fredericks, Butt, and Shaar, 2006). Other studies indicated that safety inspections could be implemented to measure the risks of observed projects (Kaskutas, Dale, Lipscomb, and Evanoff, 2008). Overall, Aksorn and Hadikusumo (2008) confirmed safety inspections to be very effective in preventing accidents.

Although safety inspection is a successful and widely used method for improving safety in various industries, the inspection process can be flawed by both ineffectiveness and inefficiency. Inspectors look for violations on-site and take notes to record observed issues. They may take repetitive steps to convert field notes to administrative reports. Moreover, these reports are rarely analyzed in order to identify the causes of work accidents and avoid their repetition in the future.

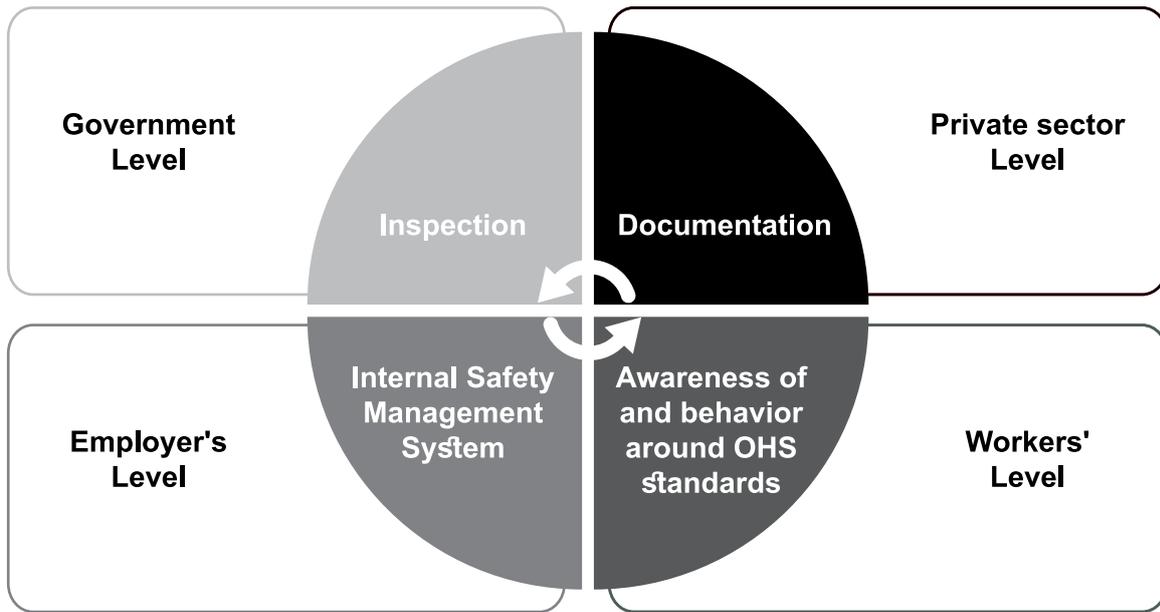
In Egypt, all industrial institutions that hire more than 50 workers have a legal obligation to establish an internal safety management, as ordered by the Minister of Manpower's decree of No. 134/2003. This internal safety management has multiple duties such as maintaining and developing OHS standards within the institution, establishing policies regarding safety and monitoring their implementation, and documenting all work accidents and analyzing their causes in order to avoid their repetition.

However, the Federation of Egyptian Industries' representative demonstrated difficulties with this related to worker behavior, and highlighted cases where workers do not commit to safety regulations, in spite of the fact that employers provide all the necessary safety tools and equipment. For example, it was mentioned that in a glass factory case, workers did not wear helmets despite the announced importance and availability of enough helmets in the factory. Another case mentioned was related to a chemical plant, where workers were selling their distributed milk rations instead of drinking it, despite its significance for their health.

Figure 1 uses a stakeholder view to summarize the multiple levels involved in the implementation issues of OHS in Egypt. According to our analysis of the policy problem in Egypt, four dimensions are identified: a) inspection-related issues associated with the legal, technical and institutional challenges; b) documentation issues for the OHS injuries and fatalities; c) internal procedure issues that ensure adherence to OHS and eventually reducing the number of OHS casualties and; d) awareness issues on lack of or poor awareness and/or compliance to OHS measures by workers and the "lack of a safety culture".

While figure 1 identifies a lead stakeholder for each dimension, it is important to note that the problems raised cannot be resolved by one policy option nor on behalf of one stakeholder but require intersectional response where stakeholders (e.g. government entities, private sector industries and their representations, employers, and workers) should collaborate to address these issues through timely and coordinated efforts.

Figure 1: Summary of OHS Implementation Issues in Egypt



III. Policy Alternatives

1. Social Dialogue:

The communication and cooperation between the government, employers, and workers are increasingly proving their efficiency in solving problems within the industrial sector worldwide. Social dialogue is any form of communication among various parties intended to arrange and develop work conditions issues (ILO, 2019). It is a friendly method to solve problems between parties and develop their understanding of the applicable policies in order to achieve the best solution for all parties. It brings the government, workers, and employers to resolve issues of common interest with regards to economic and social policy (OHS Wiki, 2019). This mediation role of social dialogue in occupational health and safety would help to reach social justice and promote decent work. This aim is closely aligned to the 2030 Sustainable Development Agenda endorsed in September 2015. The United Nations General Assembly recognized decent work as an integral element of the new 2030 Agenda for Sustainable Development. Among the 17 goals, goal 8 calls for the promotion of sustained, inclusive and sustainable economic growth, full and productive employment and decent work. Thus, decent work is expected to eradicate poverty and improve the worker's standard of living (Kayode and Agboola, 2019).

According to the International Organization of Employers, mitigating risks associated with occupational health and safety could be achieved when the culture of safety and prevention are in place. These measures as well as the response measures associated with risk management and control would not be efficiently achieved without social dialogue structures at the workplace. For example, a management will struggle to implement a new OHS policy unless it communicates with its employees. Therefore, social dialogue could support the implementation of the Occupational Health and Safety policies whether on the national level or on the internal management level.

- National Social Dialogue “NSD”: (Government – Employers – Workers)

According to the ILO guide, the government plays a critical role in the advancement of national social dialogue. The Egyptian government has four main responsibilities:

1. Provide support: it should establish the legal and institutional frameworks for NSD. **2. Promote:** it should take appropriate actions for consistent and effective discussion with other employers and workers. **3. Participate:** the government should engage in active talks on an equal basis; it should encourage exchanges of information; it should share the decision-making process with key stakeholders. **4. Implement:** it should work on translating the outcomes of NSD into public policies and programs. This also requires putting adequate monitoring mechanisms to ensure compliance with these agreements (ILO, 2013).

In Egypt, we have taken a step towards this goal by establishing a joint committee between the FEI and the Ministry of Manpower to discuss the proposed amendments to the labor law. Workers, however, are not represented in this committee. Representatives of both entities advocate social dialogue in order to develop OHS in Egypt. They share their ideas and points of view, then they strive to reach a compromise in order to reach the best solution. However, this committee needs the presence of workers’ representatives to defend workers’ interests and to help reach a result that work for all parties.

- Internal Social Dialogue “ISD”: (Management – Workers)

The social dialogue between employers and workers has proven its effectiveness in developing OHS as mentioned earlier. The FEI’ representative affirmed the role of social dialogue in settling the disputes between workers and internal management and in improving safety within the institution. She offered two successful stories in Ahram Security Group and Arab Mechanical Engineers Group. In both groups, they followed the social dialogue method to raise the OHS in their factories. The implementation shows a massive decline in the number of work accidents and increase in the production. For example, in Ahram Security group, the repetition of accidents decreased by 71.85% after one year only, and the loss of workdays decreased by 91.66%. Moreover, it increased workers’ loyalty to their institutions. Therefore, it is an effective method to follow in different industries.

Aligning with international standards would increase employers’ profits by increasing their exports. One of the best methods to follow the international standards is by getting the ISO certificate. Therefore, adopting the new ISO 45001, which replaced OHSAS 18001 standard, is a convenient solution for employers who seek the development of their businesses.

It supplies a framework to work on preventing occupational deaths and injuries, in order to provide a safe and healthy workplace. It provides a framework, regardless of size, activity, and geographical location, to manage and continuously improve OHS within the organization. It uses the same management system structure and reflects the requirements identified by the International Labour

Organization guidance for OHS systems. It has been developed over a number of years by International bodies and industry experts. In 2021, ISO 45001 will replace OHSAS 18001, and it will be the primary international OHS management system standard (International Organization for Standardization (ISO, 2018)).

ISO 45001 has adopted the four-stage Plan-Do-Check-Act (PDCA) cycle for achieving constant improvement. This is an inherent part of the systematic approach to determine workable solutions, assessing the results, and implementing ones that have been shown to work. It is important for an organization to understand what it aims to achieve, why it needs to achieve it, and if it has achieved it – this should be demonstrated within the system.

The development of the international standard from OHSAS 18001 to ISO 45001, with its increased emphasis on employers' engagement in OHS prevention through better employee communication, workers' wellbeing and other social dialogue tools are expected to yield benefits on OHS as a whole (Silva and Amaral, 2019). As a result, key voluntary OHS management indicators such as: **a)** the frequency of participation of managers in OHS meetings; **b)** the percentage of workers informed about the OHS policy; **c)** the number of workers who report OHS hazards and understand the OHS policy; and **d)** the frequency of hazard assessments performed. These indicators refer to matters concerning administrative aspects and achieving managerial and occupational safety standards in order to ensure the compliance to OHS measures. Upon the review of various studies that use different OHS management indicators, the authors called for further emphasis on the role of communication in OHS that should be coupled with the assessment and proactive management of existing risks through participatory approaches.

Enhancing the communication and participation of workers along with the identification of gaps would lead to continuous improvement. Putting an emphasis on workers' active participation in OHS matters can have positive benefits on the organization's reputation as a safe place to work leading to staff retention, motivation and greater productivity. Implementation leads to achieving an international standard benchmark, which may have a positive influence on existing and potential customers in fulfilling their own social responsibility commitments.

On the other hand, examples from the Oil and Gas industry in Norway (Hoven, Lie, Karlsen and Altern, 2007) shed light on the gap between the perceptions of employers and workers as well as the OHS representatives on the impact of the participation and collaboration on workers' occupational health and safety compared to formal health and safety management systems. Moreover, lack of trust in management, meaning that workers may not trust the transparency and effectiveness of the dialogue for OHS, could undermine the social dialogue and the management's proactive efforts.

2. Using Information and Communication Technologies (ICT):

Using new technologies is one of the tools that can be used to overcome the previous obstacles that face the inspectors' job. It would help to improve the performance of inspectors, and would help employers to avoid losses in machines and workforce. Information and communication technology (ICT) tools, such as portable tablets and/or mobile devices that could retrieve applicable safety procedures, rules and policies, and automate the recording of violations in terms of prevalence and other reports that could develop the inspection management.

According to a scholarly study published in 2014 on safety regulations in the construction sector in the US, there are various challenges facing inspectors during a typical safety inspection. These include variations in reporting between different safety specialists for the same type of violations, thus making it hard to have a comprehension of these risks. This manual process also leaves way for repetitive and time-consuming steps especially when merging field reports with office files resulting in comprehensive administrative reports.

In addition, the study points out that ICT tools further offer benefits to workforce safety in the construction sector as the automation of work responsibilities was considered to be one of the main factors to reduce accidents rates in the US construction sector during the 1990s. The study's recommendation is to replace a technology-centered design with a user-centered design that puts into consideration the users' needs and capabilities. This in turn mitigates the limitations of the former design that focused solely on adapting new technologies to a certain field without incorporating users' particular needs and capabilities into the design.

This approach addresses several drawbacks already existing in the safety inspection process: the lack of process standardization due to personal bias and error when documenting violations on site, the lack of standardized documentation as a result of arbitrary descriptions of observed safety issues, and restricted access to information hinder the work of safety inspectors because on-site documentation often cannot provide timely information, thus requiring additional time and resources to collect further information. The other two drawbacks have to do with repetitions in data preparation due to multiple and manual entries of the inspection results, and the limited availability of safety inspectors. Examples of such inventions include an iPad application that aims to improve the daily practices and management of safety inspections. An evaluation of this method has indicated the usefulness and practicality of the application. This tool also allowed for consistent data collection that can be used to develop safety and health data analysis techniques. Other examples featured in the study also include building information modeling (BIM) resulting in 4D visualization for safety planning, in addition to 3D imaging sensors of processes that would result in reducing the occurrence of collisions within a construction site. Another example is setting up a radio-frequency identification (RFID) sensor network to support in the real-time and consistent tracking of incidents hard to capture (i.e. near-miss).

Due to the inevitable presence of human error, the automation of inspections ensures that the drawbacks associated with the human element of administration are curtailed. The possibilities of forgetting about an identified risk, or misplacing a report, for example, could be avoided through the automation of inspections, forms, and alerts.

Another study demonstrates the impact of using ICT in reducing corruption using the theoretical lens of general deterrence theory (GDT). Based on this theory, the study illustrates that ICT decreases corruption by “increasing the celerity and certainty of punishment for corruption.”(Shrivastava, Utkarsh and Bhattacharjee, Anol, 2015) Investment in ICT indeed manages to stem corruption. However, the study argues that this alone is not enough as it must be complemented with ICT laws that provide the proper mechanism for identifying the types of electronic evidence that can be accepted in courts. This study highlights the need for regulations to define the legal structure and standards for collecting, sharing, and storing digital evidence using ICT, proving that simply investing in costly automatic strategies is not enough to combat corruption.

3. Management Leadership:

According to the United States’ Occupational Safety and Health Administration (OSHA) website, “Management provides the leadership, vision, and resources needed to implement an effective safety and health program.” This happens when employers, managers, and supervisors believe that worker safety and health a core organizational value. They have to be fully committed to providing financial and technical resources to support preventing hazards and risks alongside enforcing better workplace safety and health. They should visibly demonstrate their safety and health commitment to employees by being an example through their own actions. It is also recommended to have a clear, written policy that stresses the importance of safety and health, and to establish specific goals and objectives. Management should also provide the resources needed to implement the safety and health program, and address program shortcomings by integrating it into planning and budgeting processes and align budgets with program needs (OSHA website).

A scientific study published in 2018 affirms that the priority given to safety culture starts with the leaders through their decisions and judgment around resource allocation to safety. This is backed up by the “Climate Theory” where leadership and management attitude could impact both the employee’s perceptions and behaviors (Clarke, Taylor, 2018).

The managers’ role in providing the safety climate in an organization is essential for determining safety outcomes in terms of accidents and injuries (Christian et al., 2009, Nahrgang et al., 2007, and Zohar, 2010). Thus, leadership training on issues relevant to OHS and has been proven effective in improving the safety climate at work (Kelloway and Barling, 2010). While various behavioral styles have been discussed and evaluated in reference to their relative impact on OHS, leadership behaviors have proven to be the more efficient, due to safety requirements such as risk mitigation and strengthened with safety regulations (Clarke, 2013, and Kapp, 2011).

The reason behind the managers' significant influence on safety is that they determine the priority of safety in an organization because the manager is also responsible for other issues such as productivity, safety, and organizational learning. In general, the cost-benefit balance between safety and productivity is always inclined to further productivity (Cowing et al., 2004, and Zohar, 2002a).

The study argues that a leadership training intervention will serve both: a) positive employee perceptions of managers' safety actions, decisions and expectations and b) also sustain employee-rated productivity. Training could be directed toward general improvements in leadership or focused on safety only. As a result, leadership training builds the capacity of managers in addressing multiple competing objectives daily. This supports the wider literature, suggesting that one of the most effective occupational health and safety interventions is management training.

4. Education, Training and Information for OHS:

Sound educational systems as well as training and information on Occupational Safety and Health is expected to enhance the documentation, tracing and prevention of occupational injuries and diseases.

In many of the national OHS strategies, developing the capacity of managers and employees to manage OHS effectively is emphasized as a core pillar. This pillar is usually measured by indicators such as the type of OHS certification required, the number of OHS professionals employed, the number of workers trained on OHS and the increase in OHS knowledge and skills in workplaces and the community and the role of management in encouraging a safety culture where adherence to OHS and training on OHS is mandatory.

The status of OHS education in Egypt:

In Egypt, OHS education includes both university and vocational level education across the disciplines of medicine, engineering and sciences in public and private universities, institutes and educational facilities offering undergraduate, graduate and diploma-level certificates. In spite of the availability of these educational institutes, the graduates of these entities tend to choose employment in universities and/or research entities rather than production facilities (National Profile on Occupational Safety and Health in Egypt, 2005). In addition, none of these institutions offer hands-on and practical disciplines like an OSH technician diploma and many of them do not include legal training as part of the education provided to OSH specialists. Finally, the distinction between an OHS professional and OHS practitioner is nonexistent.

Job profiles for OHS:

The OHS profession or role exists to advise and support management in the overall task of prevention, mitigation and response to OHS hazards, injuries, diseases and fatalities. (INSHPO, 2017). Traditionally, the role of OHS used to be a technical and compliance one where the needed education would be of vocational nature and this position would be located in the lower levels of the organization. However, as the OHS management and leadership have matured, the OHS profession is now structured

into two main roles one is the vocationally -trained OHS Practitioner and the other is a managerial role that influences and coaches the senior management of the organization on OHS which is the OHS Professional (Pryor, Hale and Hudson, 2019). As a result, the needed OHS educational level reform should direct the system into creating a cadre of both OHS professionals and OHS practitioners who, besides being technically and managerially trained, should receive the required OHS legal training and should be visible within the organizational structure of industries.

Table 1: Comparison of OHS Professional and OHS Practitioner role

| OHS Practitioner | OHS Professional |
|--|--|
| Implementer/executor of strategy and the framework for OHS critical control management | Designer of OHS management strategy and framework for OHS critical risk control management |
| Communicates predominantly with middle management, supervisors and shop floor, building relationships as a basis for influence, mentoring and providing technical advice | Influences senior managers, building relationships as a basis for influence monitoring and providing integrated technical and strategic advice |
| Oversees and drives monitoring and compliance, acting as local change agent when required | Develops monitoring systems. Involved in organizational review and change management |
| Supports safe working environment by maintaining administrative processes, conducting training and using state-of-the-art tools, processes and standard practice solutions | Considers wider context of business processes and external regulatory, market and societal influences |
| Advises/action based on technical knowledge, experience and input by OHS professionals and other technical advisors | Advises/action based on conceptual and technical knowledge mediated by analysis of evidence, experience and critical thought |
| Focuses on organization's primary processes operating in known contexts within established parameters | Able to extend his or her understanding and control to novel, unknown complex risks and their control |
| Accesses, evaluates and uses a broad range of workplace and industry sources of information | Understands how to use, critically evaluate and develop evidence-based |
| Usually works under direct or indirect supervision or mentorship with substantial responsibility for planning own work | Works autonomously within own initiative and responsibility but values professional collaboration |
| May work with SMEs on well-known hazards or under OHS professional supervision in large organizations | Usually works in large, complex and/or high-hazard organizations or as a consultant to medium-sized organizations |
| Usually educated through vocational or technical streams | Usually educated through university or higher education sector |

Source: Adopted from the International Network of Safety and Health Practitioner Organizations (INSHPO, 2017)

Why is training of workers on OHS essential?

Training is defined as a planned effort to facilitate the learning of specific OHS competencies (O'Connor, Flynn, Weinstock and Zaroni, 2014). The purpose of OHS training is not only to transmit knowledge but to motivate and engage trainees (i.e. workers) to change their motivation, attitudes and practices for the purpose of improving OHS on the job. In addition, training programmes could have an empowerment effect as they invite workers to talk to each other about occupational hazards and decide collectively to mitigate these hazards (O'Connor, et.al., 2014).

What are the good practices in OHS education and capacity building?

Good practice includes the development of online, blended and other materials for information and education, training courses on recognition, health surveillance, diagnosis, therapy and the prevention of work-related diseases. Good practices also include short-term training opportunities for workers either implemented nationally or jointly with international facilities and partners. In addition, training also bridges the gap between the different specialties within the OHS practice (legal, medical, research, management, and engineering) to enhance the cooperation and complementarity among the different OHS professionals (United States Department of Labor, Occupational Safety and Health Administration).

Education and training in OHS is not a standalone activity and should not be pursued as a single policy alternative with no interaction and coordination with other policy alternatives. It should be programmatic and on many different levels, it should involve everyone within the educational system (universities, vocational schools, and institutes) and within the business unit/workplace (middle and senior management, workers' committees and workers). Educators and training entities should employ participatory approaches in the worker's and management training on OHS to capitalize on the empowering effect of OHS education on the workers' communities and can even include the overall community and religious structures. The government needs to display more commitment to the multidisciplinary collaboration and outreach-activities towards the entire global working population: all formal and informal workers with special attention for vulnerable groups (women, children, migrants, elderly) on OHS. This is an area where international organizations such as the WHO and ILO can support and possibly scale up.

The problems associated with OHS implementation and compliance in Egypt could be interpreted from four dimensions: inspection, documentation, awareness, and the internal management system for OHS. Each of these dimensions indicates a corresponding policy response, which could be implemented by a certain key stakeholder (the government, industries, workers, and management/Head of Unit). Due to the core importance of social dialogue in achieving the overall national goals of OHS which is in line with the SDGs, we suggest that the selected policy alternative should be coupled with social dialogue due to its importance in addressing the problem, its empowering role for all parties, and its mediation functions that tend to address conflict among actors.

Recommendations

1. A comprehensive approach to OHS education and training across all levels of management at the workplace:

Education and training for OHS is not a specific degree or certification that is restricted to a job profile within the workplace (i.e. the OHS professional and the OHS practitioner). Every worker in the organization from lower levels to higher and senior levels are entitled to minimum educational standards on OHS that span across the discipline of health, science and technical engineering and process level education). OHS management and mitigation as well as a response to risks of injuries, diseases and fatalities is everyone's responsibility yet management is entitled to an organizational and incentive structure that promotes compliance to OHS standards, encouragement and promotion of mandatory learning of OHS as well as the designation of middle and senior level positions to an OHS specialized staff that will both design and implement standards, systems and monitoring structured to ensure compliance with OHS.

As a result, further promotion, update and compliance to education and training standards outlined in Decree No. 134(2003) are required. The standards of training need to be updated to cope with the suggested change and development of the job profiles for a more complaint and efficient OHS standard. Some of these recommendations are categorized by the type of training that is mandatory for different trainees regardless of their job description. In addition, it is suggested to expand the role of the Federation of Egyptian Industries (FEI) in more OHS training especially when advocating for management level positions in OHS (OHS Professional) as well as management commitment to OHS standards as part of the industry commitment to the "Decent Work Agenda". As a result, below is a table outlining the type of education and training required for different job profiles that intersect with the OHS categorized by the type of training and the agency/institution responsible for providing this type of certification.

Table 2: Recommended types of education and training required for the promotion and compliance to OHS standards in Egypt:

| Type and Level of Education/Training | Training Agency | Trainees |
|---|---|---|
| Basic OHS Training | Industrial Development Authority | - Specialists and technicians /practitioners in OHS - OHS committee members |
| Advanced OHS Training | National Institute of Occupational Safety and Health | - Specialists and technicians/practitioners in OHS - OHS committee members |
| Industry Specific Training | National Institute of Occupational Safety and Health | - OHS committee members as per industry type (spinning, weaving, petroleum, chemicals) |
| Function Specific Training/ Specialized Training | National Institute of Occupational Safety and Health Higher education entities, NGOs and private sector institutions | - Specialists in OHS across different disciplines (health, industry, science, environment and others) |
| OHS Professional Training/ Managerial level Training on OHS | National Institute of Occupational Safety and Health and the Federation of Egyptian Industries | OHS professionals and senior management responsible and accountable to OHS |
| Private Sector OHS Training for Students | Private sector and the Federation of Egyptian Industries | Vocational education students in priority governorates to equip them for the job market needs and recruit young OHS practitioners |
| Employer Implemented Occupational Health and Wellness Training | Employers regardless of the sector | All staff to be trained on health and wellness to prevent OHS incidents and promote employee wellness and safety culture |

Besides the training and educational programs that different institutes and stakeholders can provide, promote and fund, FEI can also have a stronger role in advocacy among private sector to comply to the educational requirements of OHS through incentive-based interventions such as the introduction of a recognition/award certificates to companies who comply to training standards of OHS similar to the US-based status of excellence in OHS entitled “Safety and Health Achievement Recognition Program”(SHARP) recognizing the efforts of certain pioneer private sector units which implement additional OHS trainings for their staff and/or the wider community (e.g. vocational education students and hard-to-reach groups including informal sector employees, self-employed workers, etc.). Industry commitment to OHS awareness and training should also be included within the corporate commitment to social responsibility where industries in partnership with FEI launch media and public information campaigns on OHS practices and minimum standards to raise the awareness of the general public and also the hard to reach groups affected by OHS incidents such as migrant workers, domestic workers, and self- employed workers who may not be able to enroll in any of the aforementioned training opportunities.

2. Establishing a Social Dialogue:

- Provide a Legal Framework for the National Social Dialogue:

Making national social dialogue a sustainable characteristic of labor market governance requires a strong basis and grounded on a wide consensus. It should be grounded on the legislation by establishing a legal entity like a national council, which will be the competent authority to develop OHS in Egypt. The law has to identify the mandate, competencies, the composition, and the financing of this entity. Thereafter, it should create its own rules and standing orders.

Its mandates should include the following options: advice to the government on policy issues concerning the OHS, working on policy formulation and implementation, recommendations on labor-related issues, analysis and discussion of existing laws and policies, administration of established policies, and public information sharing.

Government, employers, and workers shall be presented in the council on an equal footing in decision-making process. This does not mean that each stakeholder has equal numbers of representatives, but it does require that the views of each side be given equal consideration. Meanwhile, it is desirable to have a clearly separate budget to ensure its stability and autonomy.

- Internal Social Dialogue:

The efficacy of OHS management depends on managerial, cultural and normative factors (Battaglia et al., 2015). The ILO noted that developing a culture of prevention within the enterprise is crucial for occupational safety and health management. The social dialogue is one of the methods to enhance the culture of prevention because it focuses on avoiding the causes of work accidents. In other words, it addresses “the hearts and minds of organizational members” (Parker et al., 2006).

The new ISO 45001 represents the latest international standards. Encouraging the communication between the management and workers is one of its most important values. Moreover, adopting such international standards would improve the institution's reputation in the international community, which will enhance exportation and decrease the number of work accidents. Therefore, we recommend that Egyptian employers should work to get the new ISO certification.

On the other hand, the government should help and encourage them to implement the new ISO. It has to provide them with the needed information and offer its support to implement the international standards. For example, it could reduce taxes on industrial institutions which implement those standards effectively in order to encourage employers to adopt such values.

3. Automation of Inspection, Documentation Process (Use of ICT)

Adopting a clear strategy towards automating the documentation process in terms of the tools used by inspectors, and the methods employed to record work injuries and evaluate institutional health and safety standards is a high priority. Studies suggest improved efficiency and accuracy in documentation when adopting user-centered designs that take into account the capabilities and needs of various sectors.

Egypt's Minister Mohamed Saafan previously stated that an automation process of the OHS system is currently being instituted "in partnership with employers and social partners" in order to provide a safe and healthy work environment (Youm7, 2019). This is a positive step that should be followed up by parliament and FEI representatives with vested interest in OHS in order to speed up the process and ensure its efficiency and compatibility with institutional needs.

For example, on the government-level, incorporating the use of ICT tools such as portable tablets capable of retrieving applicable safety procedures, rules and regulations, and software capable of automating repeated actions, could significantly improve the day-to-day practices and management of safety inspections. This will also eliminate any variations in reporting different safety specialists for the same type of issues, and provide a more time-efficient process.

On the employer-level, the automation of certain work tasks could significantly reduce the rate of work injuries. Furthermore, employing a user-centered design that establishes an accurate documentation of accidents and a compilation of such accidents in a timely manner, thereby reducing the cost incurred by the employer and raising the efficiency of the process is highly recommended. The incorporation of technology in the internal inspection process will also reduce the probability of human error and other shortcomings associated with a manual approach to inspection and documentation. This is also in line with a more comprehensive national strategy to digitize all administrative functions within the state for higher efficiency, transparency and accuracy.

In conclusion, we outline three sets of policy recommendations, namely; a comprehensive approach to OHS education; using social dialogue with emphasis

on the internal and external dialogue and communication efforts, and adopting ICT applications for multiple phases of OHS implementation. We believe that the recommended policy options suitably address the existing deficiencies in OHS implementation in Egypt and include actionable details to help support the different concerned stakeholders; government, private sector federations, employers and workers. As we all aim to accelerate Egypt's commitment and achievement of the Sustainable Development agenda with an emphasis on the decent work conditions agenda.

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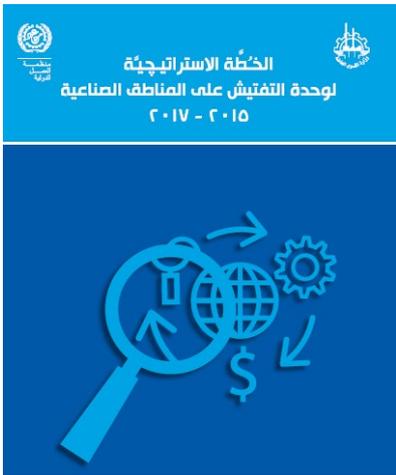
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Appendices

Annex 1: Data collected by the team to inform policy paper

| Method of Data collection | Number of Respondents | Entities | Topic | Analysis |
|-----------------------------|-----------------------|-----------------------------------|--|---|
| <i>Interviews</i> | 5 | FEI, Ministry of ManPower and ILO | Overview of OHS laws and standards in Egypt and implementation issues including inspection, documentation and education | Input from these interviews informed the policy problem definition |
| <i>Stakeholder meetings</i> | 5 | FEI, Ministry of ManPower | Discussing “social dialogue” with the private sector through FEI and Ministry of Manpower regarding the amendment of the Labor Law. | Input from this interview informed the social dialogue as a successful policy option. |
| <i>Desk Review</i> | 5 | FEI and ILO | The team reviewed documents shared by the FEI (The Environmental Compliance and Sustainable Development Office) and ILO (Egypt Decent Jobs team) | Input from these documents informed the analysis of identified policy options to capitalize on existing best practices on OHS |

Annex 2: National Flagship Documents reviewed by the team

| Title | Source | Author | Type | Cover |
|--|-----------------------------------|---|----------------------|---|
| Central Agency for Public Mobilization and Statistics (CAMPAS) 2017 report on OHS injuries | Ministry of Manpower | CAPMAS, 2018 | Press Statement | <p>إحصاء: 13.5 ألف حالة إصابة عمل في 2017.. معظمها القطاع العام بنسبة 45% ريجن، 24 سبتمبر 2018 11:11 ص</p>  |
| Strategic Plan for the industrial zones inspection unit (2015-2017) | Ministry of Manpower | ILO and MOMP, 2015 | National Action Plan |  |
| Success Story: The Effect of Good Communication within the Institution on the Working Environment | Federation of Egyptian Industries | FEI and Arab Mechanical Engineers Company | Success Story |  <p>قصة نجاح الميكانيكيون العرب AME التواصل الجيد داخل المؤسسة وتأثيره على بيئة العمل</p> |
| Success Story: Reward, Motivation and Occupational Safety Policies and their Impact on Workers' Loyalty | Federation of Egyptian Industries | FEI and Ahram Security Group | Success Story |  <p>قصة نجاح الأهرام لنظم الأمان Ahram Security Group سياسات الأمانة والتحفيز والسلامة المهنية وأثرهم على ولاء العمال</p> |

| | | | | |
|---|---|------------------|------------------------|---|
| <p><i>Monitoring the Results of the Project's Interventions to Enhance Workers' Rights and Competitiveness in Export Industries (e.g. garment, textile and food sectors)</i></p> | <p>International Labor Organization</p> | <p>ILO, 2018</p> | <p>ILO Publication</p> |  <p>منظمة العمل الدولية</p> <p>رصد نتائج تدخلات</p> <p>مشروع تعزيز حقوق العمال والقدرة التنافسية في الصناعات التصديرية لقطاعات الملابس الجاهزة والمنسوجات والأغذية</p> <p>على العمال والإدارة والتفتيش</p> |
|---|---|------------------|------------------------|---|



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