



Short Communication

A Call for Action to Improve Occupational Health and Safety in Ghana and a Critical Look at the Existing Legal Requirement and Legislation

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ABSTRACT

Occupational health and safety (OHS) is a broad field of professional practice, which involves specialists from different disciplines including but not limited to engineers, occupational health physicians, physical and biological scientists, economists, and statisticians. The preventive systems required to ensure workers are protected from injuries and illnesses dwell heavily on engineers; however, the extent to which the engineer can go regarding planning and implementing preventive measures is dependent on specific legal requirements, leadership commitment from the company, organization, and nation. The objective of this paper is to identify the areas of opportunities for improvements in OHS management in Ghana with regard to the nation's legal requirements, commitment of the Ghana government, and Ghanaian leadership as well as appropriate structuring of Ghanaian institutions responsible for monitoring and managing OHS in Ghana. This paper identified Ghana's fragmented legal requirements concerning OHS, which are under different jurisdictions with unclear responsibilities and accountabilities. The paper also highlights the training needs of Ghanaian academic institutions regarding OHS. Among other recommendations made including structuring of Ghanaian institutions to manage OHS in line with the ILO-OSH 2001, this paper aligns the recommendations with the articles and elements of International Labour Organization convention number 155 and OHSAS 18001 elements.

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1. Introduction

The concept of occupational health and safety (OHS) in industries had been conceived in Ghana long before the introduction of the Factories, Offices, and Shops Act 1970. Industrialization in Ghana has since remained in ascendancy and there have been accompanying systems and standards concerning OHS in other areas of the Ghanaian industry.

Increasing industrialization in Ghana is an indication of increasing numbers of Ghanaian population being exposed to workplace physical, chemical, biological, and psychological stressors. In the interest of ensuring protection of workers from work-related injuries and illnesses as well as preventing accidents in the industry, other legal instruments have been introduced in various sectors to control employers and employees. These include but not limited to the Mining and Minerals Regulations 1970 LI 665,

the Workman's Compensation Law 1987, the Ghana Health Services and Teaching Hospital Act 526 (1999), the Ghana Labour Act 2003 (Act 651), the Radiation Protection Instrument LI 1559 of 1993, which is an amendment of the Ghana Atomic Energy Act 204 of 1963, the Environmental Protection Agency Act 1994 (Act 490), which has components that include but not limited to the Pesticide Control and Management Act 1996 (Act 528), seeking to protect not only the environment but also persons, as well as the National Road Safety Commission Act 1999 (Act 567). These legislations are operated under different government institutions and not necessarily under a common directive.

The aforementioned legal instruments or laws are operated under different organizations such as the Inspectorate Division of the Minerals Commission, the Department of Factory Inspectorate, the Ghana Atomic Energy Commission, the Labour Commission, the Environmental Protection Agency, the Ghana Standards Board,

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the Food and Drugs Board, and the Ghana Road Safety Commission.

The existence of the different types of industries (such as mining, construction, energy, food processing, manufacturing, agro, transport, and the current oil and gas) in Ghana has led to the existence of a large Ghanaian workforce with many similar exposure groups, indicating varying modes, extents, and frequencies of exposures to different chemical, physical, ergonomic, and biological agents at different workplaces.

Numerous work-related injuries, illnesses, property damages, and process losses occur at different workplaces but due to underreporting or misclassification as a result of lack of thorough standards, or unfamiliarity with the existing guidelines, people are not normally aware of such events and their actual or potential consequences. Thus, effective corrective actions are required in this regard. However, it is still unclear how the Ghana government partnered with the aforementioned organizations in implementing the OHS activities and reported on its outcomes. The country has not yet ratified the International Labour Organization (ILO) convention number 155, although this under consideration, and therefore, the international OHS requirement is not applicable in Ghana.

Given the wide range of potential and/or actual undesired events associated with the myriad of work groups in Ghana, there is the need to have a comprehensive provision for OHS standards and practice in the nation with an unflinching national leadership, support, and commitment. However, the situation as it stands suggests otherwise, and hence, this paper focuses on: (1) Discussing some existing situation and gaps in OHS management in Ghana; (2) Explaining some examples of typical incidents illustrating OHS issues; and (3) Suggesting approaches for improving the practice, management, and monitoring of OHS in Ghana.

1.1. Existing situation and gap analysis in OHS management and practice in Ghana

As indicated by Clarke [1], the two major edicts that have provided guidance for the provision of OHS services, practice, and management in Ghana include the Factories, Offices, and Shops Act 1970 (Act 328) and the Mining Regulations 1970 LI 665 [2]. The latter has driven the OHS activities in the mining sector. This has provided reference for various activities initiated by the Inspectorate Division of the Minerals Commission in the mining industry. The inspectors provide guidance for the companies in the industry in conducting accident investigations, implementing safety guidelines, auditing and inspections, and assessment of existing controls and effectiveness as well as recommendation of further controls. These activities are completed before permission is granted to operate a mine and during operation and postoperational reclamation. The Ghana Chamber of Mines and the Inspectorate Division of the Minerals Commission have formed a technical committee that includes representatives from all the registered mining companies. This committee meets once a quarter to assess the situations at various mine sites, existing gaps, and then recommends controls. However, this good initiative is impeded by the lack of resources. The aforementioned expectations of the division are not fully operational, and therefore complete effectiveness is not fully realized due to various challenges (e.g., lack of adequate instruments or other resources). The OHS findings by the division mostly pertain to the mining industry but they are not necessarily benchmarked with other industries in the nation. There is an ongoing debate about who is responsible for correlating the activities of the other industries. The Workmen's Compensation Law 1987 (PNDC 187) is managed under the Ghana Labour Commission. This law pertains to the compensation for worker injuries caused

by accidents at work, and therefore, indirectly has an influence on monitoring worker/workplace safety. However, this provision has very limited consideration of illnesses and their classifications germane to workplace exposures to physical, chemical, and biological agents. There is limited information about the type of accident investigations carried out by the commission, the criteria used for these investigations, and their applicability in the various industries based on operational risks.

Many kinds of OHS issues are affecting Ghana. One most important issue pertains to dealing with OHS challenges. Obviously, the country has realized the benefits of OHS late, and thus, there are challenges in implementing OHS practices. One of the major challenges in implementing OHS practice is that Ghana does not have any comprehensive national OHS policy. This challenge was observed by the Ghana Health Service [3], which reported in 2007 that Ghana's challenges in including mainstream OHS practices in its national developmental agenda are certainly caused by the lack of national OHS policy. The issue of policy framework in African countries is commonly regarded as the most difficult challenge, with the assumption that policies do not work. For example, Clarke [1] indicated that a majority of Ghana's legal provisions on OHS are limited in scope as a vast majority of industries, including agriculture and most of the informal sectors, were not specifically covered. However, few statutes are related to the implementation of OHS. These are the Factories, Offices, and Shops Act 1970 (Act 328) and the Mining Regulations 1970 LI 665 [2], both of which have driven OHS implementation in the manufacturing, shipping, and mining sectors. Other statutes that have a bearing on OHS are the Workmen's Compensation Law 1987, the Environmental Protection Agency Act 490, 1994, and the Ghana Health Service and Teaching Hospitals Act 526, 1999. However, these few legal provisions require huge modifications in order to meet international requirements and standards. Further, the Ministry of Health [3] also identified some OHS challenges in Ghana. These include weak OHS infrastructures, untrained and inadequate OHS professionals, and lack of proper monitoring and surveillances for OHS diseases and injuries. Muchiri [4] buttressed these problem scenarios by indicating that poor OHS infrastructure and funding, insufficient number of qualified OHS practitioners, and the general lack of adequate information are among the main drawbacks to implementing an effective OHS practice. Moreover, Kheni et al [5] conducted a survey on health and safety practices among small- and medium-sized enterprises in the construction industry and revealed serious OHS problems. The main problems identified in their study were lack of skilled human resources, inadequate government support for regulatory institutions, and inefficient institutional frameworks responsible for health and safety standards. In addition, insufficient OHS education has been one of the challenges in implementing OHS practices [3]. Another key OHS issue is the employees' incessant exposure to OHS risks and diseases. Fire outbreaks in both private and public institutions have dramatically increased without major interventions. For example, Ghana's biggest market (Kumasi Central Market) was gutted by a fire, which was estimated to have destroyed over 400 market stalls and a significant amount of goods and cash; in addition, state agencies such as the Ministry of Foreign Affairs and Land Commission were burnt into ashes with devastating effects [6]. A study by Avotri and Walters [7] showed that sanitation problems, which are aggravated by the lack of accessible running water and inadequate toilet facilities, have the highest tendency of causing malaria and diarrhea, cholera, dehydration, and headaches. In Ghana, which is a commercial and rapidly growing economy, noise-induced hearing loss is identified as one of the most prevalent OHS risks in the construction industries with damaging effects on the health of construction workers [8]. These findings were also statistically

supported. For example, Danso [9] mentioned that the construction industry recorded 902 accident cases, which included 56 fatal accidents and 846 nonfatal accidents in 2000. Moreover, a study by Agbenorku et al [10] indicated that workers are exposed to high levels of injuries, diseases, and risk especially in the mining and printing industries. According to the National Disaster Management Organization report [11], about 11,000 Ghanaians were affected by fire and explosion and the cost of damage was estimated to be approximately 7 million dollars. Amweelo [12] indicated that OHS risk and accidents in the construction and mining sites are fatal and worrying. Ackerson and Awuah [13] reported that farmers are also exposed to occupational and water-related health risks, hazards, and diseases including schistosomiasis, cholera, nematode infections, malaria, and headaches, and dermatological, visual, and cardiac problems. These, however, require both governmental and industrial interventions. In the academic sector, “occupational health” is not an option for specialization in a typical Ghanaian medical school. The School of Public Health was established in 1995 in the University of Ghana (Accra- Greater Accra Region, Ghana), but it is not yet accredited to run programs on occupational health. Safety engineering has not found its way into any of our engineering curricula. A potential intervention is the proposed safety and environmental engineering program, which is being expected to commence at the University of Mines and Technology (Tarkwa, Western region, Ghana), but this is not yet approved. All other safety and health training programs are run by either international agencies or Ghanaian organizations, but none of these programs match up to even a bachelor degree, and the big question is “To what Ghanaian standards are these courses being run?”

In summary, this paper sought to identify and understand the key issues on OHS practices in Ghana and their legal requirement. The first OHS issue was the inadequate, limited, and narrow research on OHS in Ghana. From the aforementioned discussion on the existing situation and gap analysis in OHS management and practices in Ghana, it could be seen that there is inadequate research attention to OHS practices in Ghana. Limited research attention was paid to OHS as explained by Pupilampu et al [14]. Existing research primarily focused on the cause of OHS issues but neglected the necessary empirical and scientific interventions. For example, there was no research attention on OHS business case, OHS interventions, OHS attitudes, and culture [14]. Several papers that described OHS risks and diseases in Ghana are reported by Ghana News Agency [6], Avotri and Walters [7], Amedofu [8], Danso [9], Agbenorku et al [10], Labour Department Report [15], Ackerson and Awuah [13]. The findings of these various studies suggested that OHS risks and diseases are prevalent in the construction, mining, agricultural, and other commercial sectors. Critical observations from the few available literature sources indicated that the small- and medium-sized enterprises and the informal sectors are neglected in these studies [14]. In addition, it could be noticed that there are many OHS challenges that impede the country's efforts to include mainstream OHS practices in its developmental agenda, including the absence of comprehensive national OHS policy [16], inadequate OHS infrastructures and OHS measures, ignorance, and illiteracy [3]. In addition, there is inadequate support from employers, employees, and the government [17]. Inadequate support from these important socioeconomic partners raise an important question: “Do occupational health services really exist in Ghana?” [1].

2. Ways to improve OHS in Ghana

2.1. Structuring the OHS management in Ghana

The structuring of OHS policies in Ghana must start with government's commitment and leadership. As indicated by Annan [18],

the nation must develop or adopt a policy in this regard, and this policy must clearly indicate the commitment of the government. Components of this structure can be broken down as follows:

(1) National Policy

- (i) The nation has to adopt or develop a broad-base OHS policy that is in line with the ILO convention 155 [19] as a minimum. This policy must seek to address safety and health issues of all projects and operations from the design stage to procurement, construction, operation, and decommissioning. The aim of this policy must seek to first protect the worker from injuries and work-related illnesses, ensure standards are put in place to prevent damages to property due to accidents, and must show the commitment of the government.
- (ii) To achieve this, first all the scattered generic OHS requirements under the different agencies of the Ghana government such as the Environmental Protection Agency, the Department of Factory Inspectorate, the Inspectorate Division of the Ghana Minerals Commission, and the Ghana Labour Commission with confusing responsibilities must be brought under a common body. Such a body must be empowered and resourced adequately to enable it to organize how the policy would be implemented nationwide and by whom.
- (iii) This policy must be authenticated by the Ghana government and form part of the nation's legal documentation.

(2) Organization

- (i) Effective consultation with relevant organizations will have a positive impact on the successful implementation of the “Expected Ghana National Occupational Health and Safety Policy.” The relevant organizations may include but not limited to the Ghana Minerals Commission, the Ghana Chamber of Mines, the Ghana National Petroleum Corporation, The Association of Ghana Industries, universities, the Department of Factory Inspectorate, the Ghana Institute of Engineers, the Ghana Medical Association, the Ghana Bar Association, and the Ghana Environmental Protection Agency.
- (ii) Communication of outcomes of consultations and requirements of the OHS policy remains vital in achieving a good control of the system. This can be achieved through the National Media Commission and the associated private and public media operatives.
- (iii) Competency of the human resource who would be championing the implementation and monitoring of the OHS policy must be built up. This may require introducing relevant courses such as safety engineering in our universities and polytechnics as well as occupational health in our medical schools. These training institutions would need to be adequately resourced and accredited to deliver quality education in OHS for Ghanaians to be able to manage OHS issues in the nation.
- (iv) Collaboration between the industry, the public, and the established body responsible for the implementation, management, and monitoring of the policy is paramount.
- (v) Control of the practices with guidelines either adopted or developed by the nation's OHS body needs specific emphasis. Specific roles and accountabilities with timelines need to be developed for planning and implementation of the OHS policy actions with clear reporting lines. This must not exclude penalties for intentional nonconformances and negligence.

(3) Planning and implementation

Actions that need to be taken to ensure the aims and objectives of the Ghana National Occupational Health and Safety Policy are achieved would need to be clearly defined with specific timelines, roles, and responsibilities. More accurate reporting and measurement of incidents should be considered by the nation and targets must be set by the nation for the various industries. To guide the industries in achieving these targets, guidelines must be in place in areas such as emergency preparedness; hazardous material management; risk assessments; accident reporting and investigation; workplace inspections; workplace monitoring, assessment, and control; purchasing and supply chain policies; and permit to work systems.

There is also the need to ensure the governing organization is empowered and resourced to continue research into workplace exposures, levels that should not be exceeded, safe ways of completing the tasks, and improvement of controls when undesired events, conditions, or systems are encountered. These must be tied to the roles and responsibilities of the organization and it has to be specific.

(4) Evaluation

After the nation has adequately implemented the aforementioned recommendations or their appropriate alternatives, there has to be effective monitoring of the implementation of the process according to the specified standards, compliance by the industry, identification of opportunities for improvement, and recommendation of effective and applicable corrective or improvement actions.

(5) Actions for improvement

Actions identified as necessary to be implemented to improve upon the identified gaps and inadequacies must be implemented as required. The implementation stage also requires monitoring by the governing body. The body needs to be resourced with adequate tools, equipment, and skilled labor to ensure the implementation is done to the required standard.

(6) Auditing

At all the implementation stages of the national OHS policy, there has to be effective periodic monitoring. This requires periodically auditing all the stages of the national OHS management system to ensure continuous improvement.

(7) Needs for international assistance

Areas in which international bodies could assist to strengthen OHS in Ghana include the following:

- (i) Strengthening of advocacy to sensitize Ghanaian leaders and those of other African countries to see OHS as an important component of the human dimension of sustainable development. One of the ways in which this could be achieved is by integrating the preconditions for development projects including development assistance, measures to ensure that an OHS component is built into plans much in the same way that the World Bank and some other agencies ensure that measures of environmental performance are incorporated into feasibility studies/environmental assessments of such projects and programs.
- (ii) Sensitization of governments toward the adoption of a common policy on OHS and its integration into development and poverty-reduction efforts at the regional level,

for example, within the context of The Economic Community of West African States and The New Partnership for Africa's Development, should be encouraged.

- (iii) Assistance by multilateral agencies in terms of communication on the ILO/World Health Organization strategy would help the political leaders to appreciate the need for intensive intersectoral collaboration to achieve the objective of attaining basic occupational health services.
- (iv) Technical support from external partners for capacity-building efforts for locals would help strengthen the human capacity base. An aspect of this that would, in addition to strengthening technology transfer, also serve to curb the brain drain of trained professionals would be to include local counterparts in consultancy (collaboration) assignments, so they could work hand in hand with foreign consultants.

3. Conclusion

We examined the current situation and gap analysis in OHS management in Ghana. Detailed discussions about the OHS issues and possible ways to improve these issues in Ghana have been presented.

The rate of industrialization in Ghana is increasing and this has led to a larger percentage of the workforce being exposed to workplace hazards. The nation has some fragments of OHS legal requirements under jurisdictions of different agencies; however, there is no national policy and body responsible for monitoring and ensuring that these requirements and guidelines are met/implemented. This must be reflected in our academic curricula and legal requirements. There is the need to establish an organization with specific roles and responsibilities to focus on all the *ad hoc* efforts by the different agencies, improve the existing approach, and implement them uniformly across the different industries in the nation. This organization must pursue further research and define improved standards and guidelines for all the industries in Ghana. The nation will definitely derive moral, economic, and legal benefits from this process, and most importantly, the Ghanaian worker will work safely in a safe premise with safe tools and appliances, and return home safely.

Conflicts of interest

All contributing authors declare no conflicts of interest.

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