STUDY ON THE OCCUPATIONAL SAFETY AND HEALTH PROFILE OF SELECTED LARGE SCALE SURFACE METALLIC AND NON-METALLIC MINES IN THE PHILIPPINES

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Research Problem and Objectives

The Philippines is one of the largest in the world in terms of mining potential. It is globally recognized as the second largest resource in gold and third largest resource in copper according to the Mines and Geosciences Bureau (MGB) of the Department of Environment and Natural Resources (DENR). Safe and efficient extraction and processing of minerals are two of the major goals of mining companies. The hazards associated with the mining operations are increased since they have to operate on remote and less hospitable regions. The DENR Administrative Order No. 2000-98 or the Mine Safety and Health Standards is the policy instrument used to promote and enforce the culture of safety and health in mines in the Philippines and it is by this legal framework where mining companies shall abide to and ensure the welfare of its workers in terms of safety and health. In recent years, there have been evidences that safety and health in the mining industry have been undermined. Data on the 2013/2014 Integrated Survey on Labor and Employment (ISLE) on cases of occupational injuries and diseases in the mining and quarrying industry show a 26% increase in cases of occupational injuries from 2011 to 2013. Furthermore, the increase in cases of occupational diseases was evidently high at 983.7% during the same period of time. These information provide the need to determine the current OSH conditions prevailing in the Philippine mining industry. An up-to-date perspective on the OSH practice in the industry is thus warranted.

The purpose of this study is to come up with information on working conditions of large scale surface mine workers by looking at the occupational safety and health perspective. It aims to describe the OSH policies and program implementation and regulatory compliance of the large scale surface mining companies. It is also intended to identify the gaps on the implementation of the DAO No. 2000-98. The research aims to provide recommendations on the formulation of Occupational Safety and Health policies to improve policy environment in the mining industry.

Methods, Data and Findings

A list of prospective participant large scale metallic and non-metallic mines in the Philippines was requested from the Mines and Geosciences Bureau. A total of 15 mining companies were included in the list and were given invitation to participate in the research. There were 9 out of 15 companies that signified their intent to participate. Two activities were done during the data gathering phase. The first activity was administering face-to-face interviews with the HR/Management/ Safety Officers/ Occupational Health Personnel representatives and 65 rank and file employees using two sets of questionnaires. The second activity was the conduct of a walk thru survey of the work areas to identify specific occupational hazards using a structured OSH checklist. Descriptive statistics were used to analyze the data.

All respondent companies have established functional safety and health committees with safety and health policies, services and programs implemented. Safety programs and activities implemented include fire safety, emergency evacuation, machine safety,
housekeeping, safety induction or tool box meetings and safety trainings. The most common health services available for employees were pre-medical examination, annual medical examination, follow-up examinations and special examinations. Among the companies, 56% are conducting transfer and separation medical examinations. For hazard specific health programs, 45% of the respondent companies have ergonomics program, while 67% have respiratory protection and hearing conservation programs respectively. For special health programs, 89% of the companies have TB programs while 78% have HIV, Hepatitis B and sexual harassment programs. Drug-free workplace was the most common health program among respondent companies. Toilet and washing facilities, potable drinking water and locker/changing room were the most available facility for the site employees. These facilities are located in the employee mobilization areas in the mine sites.

The most common accidents encountered are contusions and lacerations while the most common diagnosed illnesses among workers are respiratory infections and skin irritations as reported in the annual medical reports. These are confirmed by the accounts of the workers interviewed with regards to their health complaints.

**Conclusions**

The respondent large scale metallic and non-metallic mining companies in this research have established occupational safety and health policies and programs that are monitored and implemented. This is attributable to the intensive regular inspections being done by the MGB and other stakeholders involved in ensuring compliance to the existing laws pertaining to mine safety and health. Companies were seen to implement fully general occupational health surveillance but lacks implementation of hazards based health programs. There is a need, therefore, to strengthen and improve programs on hazards identification, risk assessment and control in order to come up with safety and health programs that are hazards-specific.

**Recommendations**

The following recommendations may be considered to address the observations seen in this study: 1. Enhance the competency of OSH personnel in the conduct of HIRAC through further trainings; 2. Strengthen the capability of the MGB auditing team to inspect and evaluate OSH practices by inclusion of personnel that has expertise in Occupational Health to evaluate the health programs being implemented by mining companies.