



Graduation project 1

Analysis and Evaluation of Occupational Hazards in the
Palestinian Quarrying Industry

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Project abstract

This graduation project aims to conduct a comprehensive study on occupational hazards in the quarrying industry in Palestine, one of the country's most vital yet high-risk sectors. Quarries play a significant role in the Palestinian economy, supplying essential raw materials for construction and infrastructure development. However, quarry workers are frequently exposed to dangerous working conditions that may lead to serious injuries, chronic health problems, or even fatalities. The objective of this study is to systematically identify, analyze, and evaluate the most common and severe risks faced by workers in Palestinian stone quarries.

To achieve this goal, the research will involve extensive field visits to a representative sample of quarries located in different regions of Palestine. During these visits, data will be collected through direct observation, worker interviews, and risk assessment checklists covering various aspects of occupational safety. The study will focus on multiple categories of hazards, including physical hazards (such as falling rocks, slips, and machinery accidents), health hazards (such as noise-induced hearing loss, dust inhalation, and vibration exposure), and environmental hazards (such as unstable terrain and weather-related risks).

Each hazard will be evaluated using quantitative and qualitative methods to determine its frequency, severity, and overall risk level. Statistical tools will be applied to calculate the percentage and ranking of each type of risk across all surveyed sites, allowing the research team to determine which hazards have the highest occurrence and impact. The results will then be compared to international safety standards and guidelines in order to identify gaps and propose appropriate control measures.

Ultimately, this project seeks not only to highlight the most significant risks encountered by quarry workers but also to provide practical recommendations that can help reduce accidents and promote a safer working environment. By emphasizing prevention, awareness, and safety management practices, the findings of this study are expected to contribute to the development of more effective occupational health and safety policies in the Palestinian quarrying sector and to serve as a reference for future research and industrial improvement initiatives.