

Management of safety and health hazards associated with construction and demolition waste in Zimbabwe

Steven Jerie, Takunda Shabani and Tapiwa Shabani

Abstract

The management of safety and health hazards associated with construction and demolition waste in Zimbabwe is a critical issue that requires comprehensive attention. Purpose: This review paper provides an in-depth analysis of the current state of safety and health hazards associated with construction and demolition waste management sector in Zimbabwe.

Methods: Literature was searched from various databases for example African Journals Online, PubMed, Science Direct, Springer, Sage Publications, Google Scholar and Scopus. Key words such as construction and demolition waste, waste management, safety hazards, health hazards and risk assessment were used to retrieve data from different databases.

Results: The paper finds that construction and demolition waste management is associated with physical, chemical, biological and ergonomic hazards. The review posits that there are existing regulatory frameworks and enforcement mechanisms related to safety and health in construction and demolition waste management in Zimbabwe for example Environmental Management Act [Chapter 20:27] and Urban Councils Act [Chapter 29:15]. Risk assessment and use of personal protective equipment were highlighted as strategies to manage safety and health hazards associated with construction and demolition waste in Zimbabwe. Proper handling, storage, transportation and disposal of construction and demolition waste reduce its impacts to the people and the environment. Challenges affecting Zimbabwe in managing safety and health hazards associated with construction and demolition waste include economic constraints, lack of awareness and education as well as limited recycling and waste treatment facilities.

Conclusion: Overall, this paper aims to provide valuable insights for policymakers, industry professionals, researchers and other stakeholders to enhance safety and health standards in construction and demolition waste management practices in Zimbabwe.

Keywords: Construction and demolition waste · Waste management · Safety hazards · Health hazards · Risk assessment