



Hazard mapping along the Dead Sea shoreline, Jordan

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Dead Sea located at the mid west part of Jordan and represent the lowest region of the world. This is a classical region of geological and geophysical studies where topographic, geological and geomorphologic hazard maps has to be prepared for economical, environmental and industrial events that have strong potential to take place in this region in the near future. Geological and geomorphologic hazard that developing in this region affect in roads, agriculture lands, and building foundations by the collapse of the ground surface and cracks with different sizes and depths.

In this study, hazard detection and mapping has been investigated based on four major issues; first, shrinkage of the water level and movement of shorelines ;second, tectonic structures and shallow fault; third, development of the sinkholes in the study area and finally subsidence of entire area. Information and techniques based on different research areas (Geophysics, Photogrammetry, Remote sensing and Global Positioning System (GPS)) has been integrated for hazard and risk map generation. As a final point, realistic representation of the study area with three dimensional Geographic information systems (GIS) was prepared for efficient management and visualization of the study area