GIS based weighted overlay analysis in landslide hazard zonation for decision makers using spatial query builder in parts of Kodaikanal taluk, South India

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Abstract: An accurate method of generating landslide hazard zonation is very important to mitigate the loss of properties and lives caused by this type of geological hazard. This paper presents the study of GIS based approach in parts of Kodaikanal Hills. The first part of the methodology involves preparation of geology, geomorphic map, relative relief, drainage and landuse/landcover map. In the second stage, to identify the Landslide hazard zonation areas, the above-mentioned parameters were analyzed in a GIS by assigning appropriate ranks and weightages were assigned to prepare the landslide Hazard zonation map.

Keywords: Landslide Hazard zonation; GIS (Geographic Information System); Slope; Spatial Distribution