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Landslide Hazard Zonation Mapping using Power Method based AHP for Saklespur, India

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Abstract: In the present study, an attempt was made to develop landslide hazard zonation map using various thematic maps such as precipitation, slope, geology, aspect, land cover, distance from road, lineament density, distance from river, elevation by using AHP and modified power method based AHP technique. Mapping performed using AHP and PM-AHP concluded that 32 and 15% of the total taluk area falls under highly risk zone in Saklespur. Results concluded that PM-AHP provided better results in mapping the highly risk zone covering an area of 85% of the landslide hit locations whereas using AHP technique only 57% of the landslide hit location falls under highly risk zone.

Keywords: Landslides, Analytical hierarchy process, Power Method, Disaster, Remote Sensing, GIS