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Using GIS in a Landslide-Prone Area

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Abstract: *A computer-based tool for mapping and evaluating geographical phenomena and occurrences on Earth is the geographic information system (GIS). Common database integration is a feature of GIS. It has functions like statistical analysis and inquiry. This feature sets GIS apart from other information systems and makes it useful for a variety of public and commercial businesses in terms of forecasting results, planning strategies, and explaining occurrences. Landslides, watershed management, urban planning, water resource engineering, and other areas are among the many uses of GIS in civil engineering. One of the natural disasters that involves the movement of rock, debris, and soil as a result of slope collapse and gravity is a landslide. There are fundamental causal factors that only determine the severity and degree of landslide episodes, which might vary. Water always plays a part in social movements. Slope collapse is frequently caused by human activities in addition to natural causes. It results in property damage, fatalities, and damage to buildings. The use of GIS for landslides is covered in this work. In order to prevent landslides, preventive measures are also recommended*

Keywords: GIS, landslide, civil, engineering, slope, failure