Landslide hazard zonation mapping using remote sensing and GIS techniques

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The aim of this study is to enhance the effectiveness of using remotely sensed data and GIS techniques for slope instability studies with emphasis on the landslide cases. This study will result in the assessment and prediction of current and future instability areas, which can be used by planners and decision-makers in the country. The chosen study area is Cameron Highlands as the most unpleasant issues in this area are the casualties and damages caused by frequent occurrences of landslides became important headlines.

The main task for the analysis preparation is the preparation of the demarcation of the landslide area either interpreted from satellite imagery or aerial photographs into the map. This landslide distribution map is prepared with each of the polygon is assigned with its unique code. Others map like lithology, geomorphology, structural geology with emphasis for the lineaments and faults, distance map, slope and aspect map also been

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created either generated or extracted from the existing ancillary data. The result of slope instability study by using the Information Value Method, one of the modeling method used has given the indication of the most relevant causative factors influencing the landslides occurrences in this area. The very high risk area covers 164,600 m^2, mostly emphasizing several main road slopes and part of the market gardening area in Bertam Valley and some sloping areas in Tanah Rata and surroundings.