

**DETERMINATION OF LANDSLIDE RISK POTENTIAL  
ALONG THE MAJOR ROADS HEADING TO  
KOTA KINABALU CITY, SABAH**

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## ABSTRACT

Soil erosion is one of natural disasters that occur on earth. Other than by creating sediment which pollutes rivers and dams, erosion can propagate a slip further and cause a bigger landslide. When a landslide occur at any location along a road, it not just only block the road and cut off the connection for one place to another place for several times but also might risk of injury and death for those using the road, delays development planning, loss of properties and cost million of dollars to the government. It has been a fact that the main cause of soil erosion is due to rain acting upon the soil. The amount of soil erosion loss is then going to depend upon the combination of the strength of the rain to cause erosion and the ability of the soil to withstand the rain. Tamparuli – Ranau road, Sabah is an example of major road heading to Kota Kinabalu city, Sabah. This major road frequently associated with landslide tragedy and according to Berita Harian dated June 25th, 2004, a landslide tragedy has occurred along the said main road located 95 km from Kota Kinabalu city or 27 km from Ranau town. This tragedy caused hundreds cars stranded for 15 hours and based on landslide risk profiling research conducted on the road, it shows that the landslide location has the gully erosion features and the erosive power produced by rainfall reach the critical category on the ROSE Index classification. This indicated that both aspects can be taken into account to give general view in identifying landslide risk potential of an area. However, in-depth research needs to be conducted such as profiling of landslide risk for a specific and detail view of landslide risk on the area. Hopefully by knowing the landslide risk potential along the major roads heading to Kota Kinabalu city, the state government can take immediate action to ensure the effects of landslide occurrence can be avoided and minimized. It is significance due to the fact that road is the primary infrastructure to Kota Kinabalu city as the capital of Sabah. Research findings highlighted the level of landslide risk potential arranged in ascending order namely Simpang Tuaran to Simpang Kota Marudu, Papar to Beaufort, Simpang Penampang to Simpang Tambunan, Simpang Tambunan to Keningau, Simpang Tambunan to Ranau, Tamparuli to Ranau and Ranau to Telupid road. It is hoped that other major roads heading to all the major cities in Malaysia can be investigated in the same manner, thus, leading to the mapping network of landslide risk potential for all the states in Malaysia.