

# The Application of Rainfall Erosivity Index to Determine Landslide Risk in Sabah, Malaysia

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## ABSTRACT

*Soil erosion is one of natural disasters that occur on earth. Its most hazardous impact is that it can effectuate into a landslide. There are two dominant factors that contribute to the occurrences of landslide, namely soil erodibility factor and rainfall erosivity factor. Both are natural factors and cannot be controlled as compared to the other factors. This research is conducted because Sabah also faces problems of landslide. It is due to the earth's surface, which is mostly covered with hills and dales of different contour surfaces. At the same time, it receives a high percentage of rainfall. The aim of this research is to establish the rainfall erosivity map for the Sabah. Rainfall data are collected from the automatic rainfall stations from 1999 to 2002. From the rainfall analysis, one can classify landslide risks into five categories: critical, very high, high, moderate, and low. Hopefully, this research will benefit the state government especially in the future infrastructure development planning, where safety, economic, and social aspects are taken into account.*

**Keywords:** *landslide risk, erosivity, index*