

Geohazards In Sandakan Town Area, Sabah, Malaysia.

ABSTRACT

The geology of the Sandakan town area provides a favourable setting for geomorphological hazards occurrences. The exposed rocks in the study area and its surrounding vary in types and ages, from Late Eocene-Early Miocene Neogene's clastic sediment of the Garinono Formation, the Sandakan Formation and Volcanic Facies to vary recent Quaternary alluvial materials which are still being deposited. These rock units are dissected by numerous lineaments with complex structural styles developed during series of regional Tertiary tectonic activities. Rapid urbanization activities have caused changes in the land use. Urbanization processes may contribute to the exposure of impervious surface, loss of vegetation cover, modification of slope gradient and drainage systems. The last decade has seen slope failure, flash flood and erosion events, which have claimed lives, damaged properties and increased the cost of maintenance. The main factors causing geomorphological hazards occurrences in the study area are natural (geology, meteorology, topography and drainage system) and human factors (lack of proper planning, human activities and community's attitude). Serious efforts to increase the community's awareness to geomorphological hazards occurrences and reconstruction of natural ecosystem must be taken. To handle this issue, both prevention and mitigation are necessary. At the planning level a multi disciplinary approach to zoning, risk assessment and design with construction practices is recommended. This is to ensure that future activities will not cause further damage to natural environmental condition or ecosystem.