

Geologic factors contributory to landslides — some case studies

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Landslides occurrences are rather common in Malaysia. They are associated with development on hilly terrains, construction of highways, mining activities, river bank instability, etc. Materials involved range from soft soil deposits to hard rocks. This paper presents several case studies on landslide occurrences and investigations in Malaysia, with emphasis on the geological factors contributory to the landslide incidence. The case studies are chosen from various projects involving hillside development, highways, mining activities, and river bank instability studies from various localities in Malaysia. Geological factors of relevance include: lithology/rock type, grade of weathering, rock discontinuities (joints, faults, bedding planes, foliations, etc.), superficial or soil deposits. Alluvial, colluvial and man-made fill (loose tips and mine tailings) are particularly treacherous as slope deposits. In addition, surface morphology (geomorphology) and drainage (surface and sub-surface) can also be contributory to landslide incidence.

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