

Paper Title: Landslide risk management and slope engineering in Hong Kong

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Abstract:

The slope safety problems faced by Hong Kong are the result of its dense urban development in a hilly terrain combined with high seasonal rainfall. The slope engineering practice and landslide risk management system in Hong Kong has evolved in response to experience and through continuous improvement initiatives. This has resulted in the progressive development of a slope safety regime aimed at reducing landslide risk to meet the needs of the public and facilitate sustainable developments. Hong Kong has pioneered the successful use of quantified landslide risk management in urban safety and disaster prevention. This is implemented by integrating quantitative risk assessment with slope engineering and landslide management. The key is to examine the likelihood and consequence of landslides, and thereby managing risk in totality. This paper presents the background to the development of risk-based landslide management in Hong Kong. Examples of application of quantitative risk assessment are given to illustrate how it serves to formulate the overall slope safety strategy and manage landslide risk posed by individual sites.