

Paper Title: Application of quantitative risk assessment in landslide risk management in Hong Kong

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Abstract:

This paper describes the innovative use of quantitative risk assessment (QRA) techniques to address slope safety problems. Case histories are presented to illustrate the role of QRA in landslide risk management in Hong Kong. QRA is a method of quantifying the order of risk through a systematic examination of all the key factors contributing to the landslide hazard and affecting the severity of landslide consequence, including the assessment of the probabilities for the individual factors. It provides a rational framework for evaluating the cost-benefit of various mitigation options to assist in the formulation of risk management strategies and facilitate decision-making on resources allocation for risk reduction.