

# 连云港市滑坡风险制图和土地利用规划

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**摘要:** 本文选择连云港市郊区 (880 平方公里) 为研究区域, 在 GIS 技术和 RS 技术的支持下, 在区域尺度上计算了 88 个滑坡发生的空间概率、时间概率、易损性、受威胁 (处于风险中) 对象的数量; 参照风险评估公式: 风险 = 灾害 \* 易损性 \* 受威胁对象的数量, 定量地计算连云港市郊区每年的风险, 并生成滑坡风险曲线, 而且可以根据最新的滑坡灾害影响因素数据库资料对滑坡风险进行重新分析。这种区域尺度上定量的滑坡灾害风险评价结果, 可以更准确、更快、更简单和更有效地处理土地利用和规划问题, 对连云港市郊区合理地利用有限的资源和减灾和防灾起到一定的作用。

**关键词:** 滑坡灾害; 危险性; 易损性; 风险评价; 地理信息系统

Quantitative hazard and risk assessment and mapping in LianYunGang Urban Segment

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**Abstract:** In this paper we present the approaches for the analysis and modeling of landslide quantitative hazard and risk assessment. This work describes the application of the method for the area of LianYunGang Urban Segment. The quantitative risk formula is: Risk = Hazard \* Vulnerability \* Amount of elements at risk. The factors chosen that influence landslide occurrence were: elevation, slope, aspect, curvature, distance to river, geological formation, distance to fault, distance to road, distance to settlement, land cover, vegetation index and precipitation distribution. The landslides were observed and documented during the field studies. Results show the powerful quantitative approach for assessing the exposure of human activities to the landslide threat for a best choice of the countermeasures needed to mitigate the risk.

**Keywords:** landside, hazard, vulnerability, risk assessment, GIS