

湖北省清江流域滑坡分布规律与减灾对策研究

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DISTRIBUTION LAW AND HAZARD MITIGATION STRATEGIES OF LANDSLIDES IN QINGJING RIVER VALLEY, HUBEI

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摘要 清江流域是湖北省滑坡高发区,滑坡灾害频发,造成了较大的经济损失,危害大。该区地质环境复杂,地貌形态以中山为主,河谷深切,岸坡陡峭,构造发育,新构造运动表现为大面积间歇性上升运动;区内共发育滑坡2843处,其中滑坡2275处,崩塌型滑坡568处,滑坡以小型为主,主要分布在人类工程活动比较频繁的地带。通过统计分析,清江流域滑坡的空间分布规律主要受控于地质环境条件和动力因素,动力因素包括自然动力因素和人为动力因素,前者以降雨为主,后者以切坡为主且日趋发展;滑坡变形的时间规律主要表现为同发性、滞后性和不稳定的周期性;滑坡的自身活动规律主要表现为继承性、隐蔽性、突发性和差异性;针对性地提出了监测预警、搬迁避让、工程治理和地质环境保护等滑坡减灾对策。

关键词: 清江流域 滑坡 分布规律 减灾对策

Abstract: The Qingjiang River Valley is the high susceptible area of landslide in Hubei Province, where the landslides have caused a great deal of economic loss and have great threats to local people. The geological environment of the studying area is complicated. There are deep rivercut valleys and steep bank slopes. The geological structure is developed. There were large-scale intermittent ascending motions in the aspect of neotectonic movement. There are 2843 landslide hazards in the studying area. They include 2275 landslides and 568 collapse-landslides. Most of the landslides are small-scale and are mainly distributed at the region with frequent human activities. According to the statistics analysis, the space distribution law of the landslides in the Qingjiang River Valley depends on the geological environmental and dynamic factors. The dynamic factors include natural dynamic factors and human dynamic factors. The former is mainly the rainfall. The later is the increasing cutting slope work by human activities. The time law of the landslides is synchronous, hysteresis and unstable period. The self-action law of landslides is inheritance, concealment, burstiness and diversity. Based on the investigation on the geological environmental conditions and the basic characteristics of the landslides in the studying area, the mitigation strategies for landslide hazards in the studying area are proposed correspondingly. They include monitoring and early warning, relocation and movement, engineering improvement, and geological environment protection.

Key words: Qingjiang river valley Landslide hazards Distribution law Mitigation strategy

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