

The Contributing Rate of Slope Gradient to Landslide Growth from Yunyang to Wushan in Three Gorges Reservoir Area

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Abstract Landslides' developing in Three Gorges Reservoir Area is related to many factors. Slope gradient is one of indispensable internal factors besides lithology, relative elevation and slope aspect. In this paper authors used the method of contributing rate with Geographical Information System (GIS) technology to study how slope gradient contributes to landslide growth. Through detail research on 205 landslides examples, authors found that the slope contributes most whose gradient is among $20^{\circ} \sim 50^{\circ}$, and this zone is dominant to develop landslides. The research result insculates preferably with the fact. The result of this paper can provide potent gist to the construction of Three Gorges Reservoir area in future.

Key words Three Gorges reservoir Area; landslide; slope gradient; contributing rate

封面照片: 扎曲河谷

扎曲位于青藏高原东部、横断山区北段, 发源于唐古拉山脉北麓三江源自然保护区的杂多县 (属青海省玉树州) 境内, 为澜沧江源头之一。在西藏昌都县昌都镇, 扎曲与澜沧江另一源头——昂曲汇合后称澜沧江。扎曲是典型的高原河流, 其河面高程多在 3 200 ~ 5 000 m 之间, 最低处 (与昂曲汇合处) 海拔也约 3 100 m; 其源区和上游地形舒缓, 分布着众多大大小小的湖泊, 有着广阔无垠的草场, 下游穿行于横断山高山峡谷之中, 河谷宽窄相间。

照片为昌都镇附近扎曲下游, 河流穿越达马拉山段的河谷地貌。该段河流阶地断续发育, 呈干暖河谷景观, 热量较充足 (年平均气温 7.5° , 昌都), 但年降水量较少 (约 470 mm, 昌都)。

(山 水)