

水庫集水區山區道路選線之研究

蕭宇展^{[1]*} 林政侑^[2]

摘要 近年受氣候變遷影響，高強度降雨事件頻傳，山區道路易生崩塌，為降低山區道路毀壞風險與維護成本，系統化且低成本之山區道路選線極為重要。丁子蘭坑集水區為水利署近年規劃的雙溪水庫預設壩址，集水區需新建產業道路。本文以水土保持及生態保育觀點，探討各道路規劃方案延線之安全性及適宜性。水土保持之考量包含源頭崩塌潛勢、地形濕度指數、道路切線斜率變化、凹岸崩塌潛勢、以及上邊坡崩塌潛勢等環境指標；生態保育則以水庫周邊保育類野生動物之分布為考量。分析所得之道路沿線安全性與適宜性變化，可供道路規劃選線以及施工設計之參考。

關鍵詞：道路選線、水庫集水區、崩塌。

Route Screening of the Mountainous Roads in a Reservoir Watershed

Yu-Chan Hsiao^{[1]*} Cheng-Yu Lin^[2]

ABSTRACT In recent years, landslide occurred frequently along the mountainous roads due to high intensity rainfall events increased under climate change. A systematized and low-cost method for the route screening of the planned mountainous roads is very important for reducing the collapse risk and decreasing the maintain expenditures. Ting-tzu-lan-keng watershed was selected to be Shuang-xi Reservoir by Water Resources Agency, so an alternate road system should be constructed before the reservoir operation. Safety and conservation points of view are considered to explore the suitability of the planned routes screening. The factors and/or index such as headwater landslide potential, topographic wetness index, road tangent slope change, concave landslide potential, upper slope landslide potential, and the distribution of protected wildlife nearby the reservoir are selected to examine the safety and suitability of the potential routes. The methodology provided in this study could be a reference of route screening for the use of related authorities.

Key Words : Route screening, Reservoir watershed, Landslide..

[1] 國立中興大學水土保持學系碩士生 (* 通訊作者 E-mail: syz1111@hotmail.com)

Master student, Dept. of Soil and Water Conservation, National Chung Hsing University, Taichung 402, Taiwan.

[2] 國立中興大學水土保持學系博士生

Ph. D. student, Dept. of Soil and Water Conservation, National Chung Hsing University, Taichung 402, Taiwan.