

摘 要

國寶級的阿里山森林鐵路為世界著名的登山鐵路之一，由於阿里山森林鐵路 42k+940~43k+040 路段，於九二一地震後已造成嚴重坍方，地形破碎，雖經整治，然多年來路基仍有下陷之跡象，嘉義林區管理處為考量行車安全而辦理「森林鐵路 42k+940~43k+040 路基邊坡穩定處理工程」。本研究係以該路段為研究對象，實地進行現勘調查，經調查後得知，導致本研究地區發生崩塌之主要原因係為地形陡峭、降雨量集中及植生生長不佳等因素；此外，本研究並針對該整治工程之治理工法進行初步探討。

(**關鍵詞**：阿里山森林鐵路、邊坡穩定)

A preliminary study on the causes of failure and the remediation efforts of slope stabilizing for the Alishan Forest railway between sections 42k+940 and 43k+040

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ABSTRACT

The Alishan Forest Railway, a national treasure, is a world-renowned “mountain climbing railway”. Due to the 921 Jiji Earthquake, forest railway sections between 42k+940 and 43k+040 suffered considerable damage, causing collapse and deformation of the track. Despite efforts of remediation over the years, the subgrade still shows signs of subsidence. To ensure safety, “Forest Railway Sections 42k+940 ~ 43k+040 Slope Stability Project” were put in operation by the Chia-yu Forestry Management Administration. Field surveys were applied in this research to explore the main reasons of failure for the sections of the forest railway. Results show that steep terrains, concentrated rainfall and poor vegetation cover which were playing important roles on the failure of the sections. In addition, this study was also focusing on the remediation efforts of slope stabilizing projects.

(**Keywords** : Alishan Forest Railway, slope stabilization)