臺中市-和平區-D052 大規模崩塌區調查及治理規劃

摘要

　　本案經過現地調查、地球物理探勘、邊坡穩定分析、風險分析與現場監測資料綜整，其屬崩塌潛勢低、中之分布，惟在地下水位的觀測資料顯示，編號 DH-2(位於梨山衛生所旁)地下水位偏高(約地下 3 公尺)且升降不顯著，另梨山衛生所之建物調查資料顯示下邊坡處有張力裂隙產生，故此區地層需長期監測，以觀察是否因地下水位偏高而造成地層滑動之誘因，就今年度新設之孔內傾斜儀與 TDR 地層滑動面監測結果尚無明顯地層滑動現象。

　　本區整體治理策略主要為梨山衛生所下方邊坡之整治，分為短期與中長期整治工程，短期建議先行施作橫向集水管與排水溝既消能設施，以利排除編號 DH-2 地下水位偏高之現象，及施作擋土牆以利本區建築物之邊坡穩定，中長期建議為經過短期之工程施作後，依據未來監測資料做成效檢討，再行評估施作集水井工程之必要性，以利排水更深層之地下水。整體而言，此地區建議對新增監測設施作長期之記錄，以觀察此區是否有地表或地層滑動現象並可檢討潛在崩塌地之管理基準值。

關鍵詞：大規模崩塌、崩塌地監測、整治工程

D052 Large-scale collapse area investigation and treatment planning in Lishan

ABSTRACT

Through field investigation, geophysical exploration, slope stability analysis, risk analysis and on-site monitoring data, the area belongs to low and medium potential landslides. However, the observation data of the groundwater level in DH-2 groundwater well located near Lishan health center shows that the groundwater level is higher by only 3-meter depth and its rise and fall is not significant. The building survey of the Lishan health center shows that there are some tension cracks at the downslope. Therefore, ground deformation in this area is in need of long-term monitoring in order to observe whether slides occur, because the groundwater level is too high. For the monitoring data collected in this year, there is no significant deformation in the area.

The remediation strategy of this landslide area is mainly for the safety of Lishan health center so some remedial works may need to undertake at the downslope of the health center. The project divided the strategy into short-term, medium-term and long-term remediation items. For the short term, it is recommended to construct horizontal drains, drainage ditch and dissipation facilities in order to drop the groundwater level of the DH-2 well. For the medium term, the project suggests that retaining wall would be constructed so as to increase the slope stability of the building. Finally, it is recommended for the long-term item to build drainage wells based on more monitoring data and evaluation after the completion of short-term and medium-term items. Overall, the monitoring devices installed this year should detect more long-term records so that the project will analyze the data to observe whether there are any deformation or slides in the area and to review the management criteria for the potential landslide area in the future.

Keywords：**Large-scale landslide, landslide monitoring, and remedial works**