

114年大規模崩塌潛勢區 資料調查及公開準備

為達98處潛勢區防災應變管理值訂定及相關作為之落實，農村水保署自110年開始逐步公開大規模崩塌影響範圍劃設及警戒雨量訂定成果，相關資訊公開後即由地方政府推動大規模崩塌疏散避難作業，因此需逐年完成相關資料之整備與審查，本年度共完成8處潛勢區資料整備及12處115年警戒發布區之資料審查。

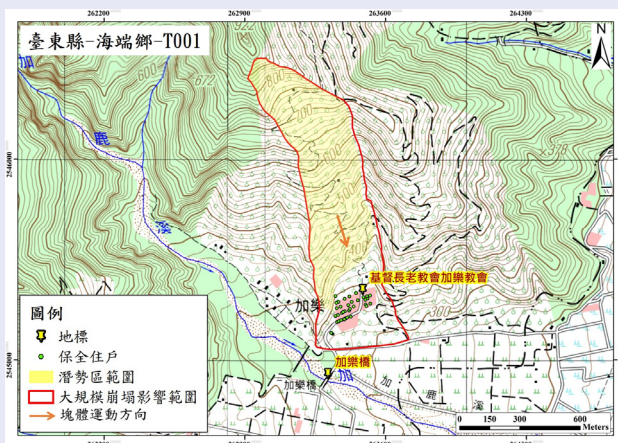
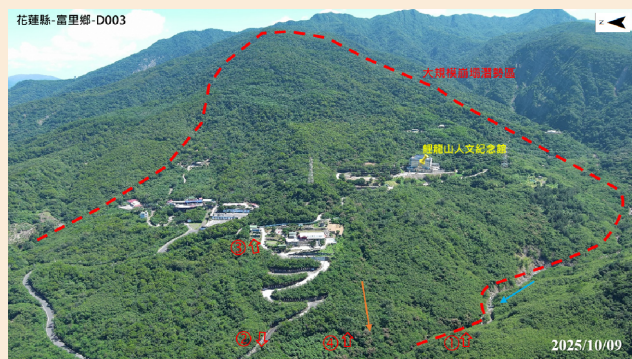
為精進大規模崩塌潛勢區防災應變機制，進行影響範圍劃設與警戒雨量檢討與調查。並利用數值模式分析大規模崩塌潛勢區促崩雨量與穩定性變化情形，提出大規模崩塌雨量警戒基準值調整機制，以及透過找出關鍵塊體建立大規模崩塌潛勢區分區分塊劃設評估及方法。

大規模崩塌影響範圍劃設與調查

透過工作會議篩選優先辦理區(中高風險潛勢區+現場監測設備+潛勢區活動情形+歷史災害)，共完成8處潛勢區整備工作(基本資料蒐集+現場調查+疏散避難資料建置)。

地理位置 屏東縣獅子鄉楓林村及竹坑村

環境說明	水系	楓港溪流域
	交通	由省道台26線自枋山往南至3.6k處往東行龍山路可抵達
	地形資料	潛勢區面積 94.4公頃
		潛勢區平均坡度 20.6度
		潛勢區坡向 西南向

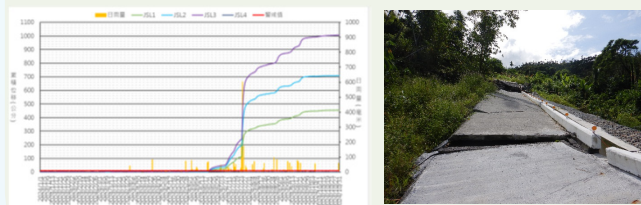


警戒發布區公開資料預準備

相關潛勢資料透過說明會取得委員及地方政府意見，完成修正後召開審查會，依據委員意見修正後進行資料公開。

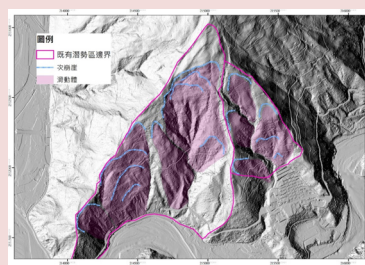
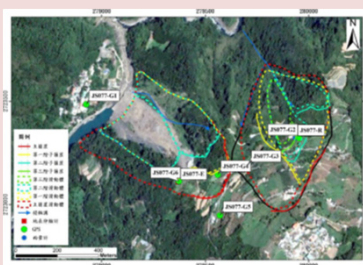
大規模崩塌影響範圍劃設與警戒雨量檢討與調查

針對潛勢區現地狀況、影響範圍、保全對象等潛勢區基本資料進行更新，進行影響範圍或雨量基準值之檢討。



大規模崩塌潛勢區分區分塊影響範圍劃設方法之測試與評估

針對大規模崩塌潛勢區進行分區分塊劃設評估及方法建立，嘗試找出關鍵塊體，並進行以分區分塊概念為基礎之影響範圍劃設測試。選定新北LL002(鵠鵠崙)及竹縣LL004(秀巒)潛勢區做為示範區來進行分區分塊試做。



新北LL002(鵠鵠崙)

竹縣LL004(秀巒)

其他案例

氣候變遷下大規模崩塌防減災計畫已經歷第一期計畫與第二期計畫，建立大規模崩塌防減災體系，但面臨極端氣候頻傳之環境條件，且大量政府經費持續投入之必要性與可行性，大規模崩塌災害預警實務操作應朝向精準避災為原則，以提升預警精度、操作效率為目標，因此建議於第三期計畫以大規模崩塌潛勢區關鍵塊體之掌握，以及潛勢區多元監測分級為目標，研擬第三期中長程計畫。

本年度遭遇多處大規模崩塌及堰塞湖等複合型土砂災害，複合型土砂災害非現行防災體系中由單一權責單位進行處置之情事，應分別由不同權責機關就其任務進行處置，因此有效之現地監測設備及有效之資訊交換平台為跨單位合作之首要工作，建議應針對跨域、跨單位之土砂災害應變能量進行盤點，就各介面之瓶頸段進行檢討並規劃媒合工作。

委託機關：農業部農村發展及水土保持署減災監測組

受託單位：財團法人成大研究發展基金會

執行期間：114年2月-114年12月



農業部農村發展及水土保持署
Agency of Rural Development and Soil and Water Conservation, MOA



優質·效率·團隊

Potential Large-scale Landslide Investigation and Preparation for Data Disclosure in 2025

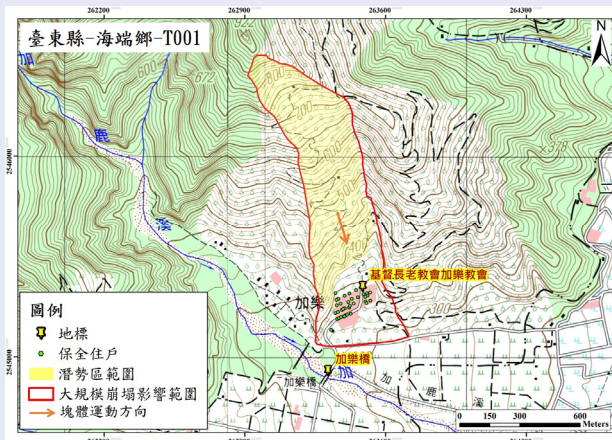
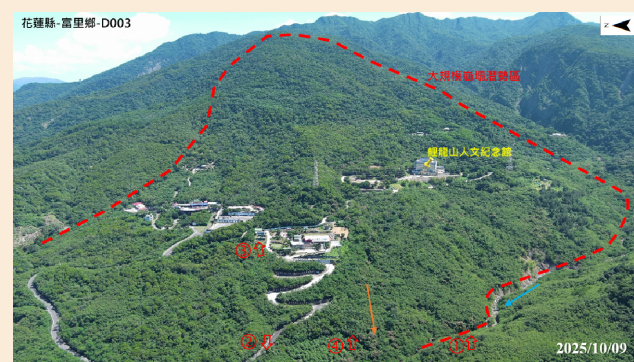
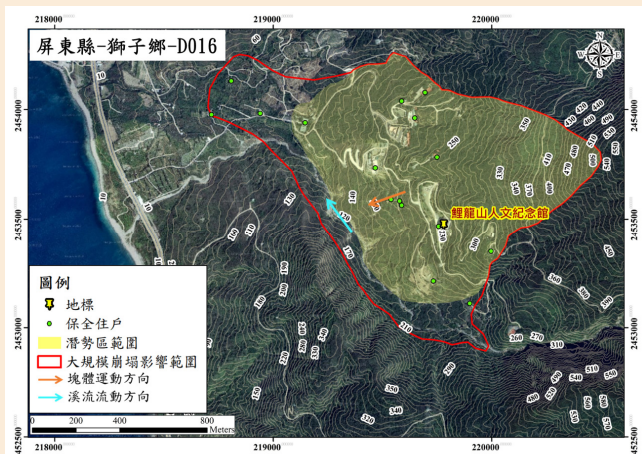
To establish management values for disaster prevention and response in 98 potential large-scale landslide areas and implement related measures, the ARSWC has gradually released the results of delineating the affected areas of large-scale landslides and setting rainfall warning thresholds since 2021. This year, preparations for data on 8 potential large-scale landslide areas and reviews of data for 12 warning announcement areas for 2026 have been completed.

To enhance the disaster prevention and response mechanisms for potential LSL areas, this project conducts delineation of affected zones as well as reviews and investigations of warning rainfall thresholds. Numerical modeling is used to analyze the triggering rainfall and stability variations of potential LSL areas. Based on the results, an adjustment mechanism for rainfall warning thresholds of LSL is proposed. In addition, by identifying key blocks, methods for subdividing and delineating zones within potential LSL areas are established.

Investigation of Potential LSL Areas

Through working meetings, priority implementation zones were selected, and preparatory work for a total of 8 potential areas was completed.

Environment	Location	Fenglin and Village, Shizi Township, Pingtung County		
	Watershed	Fenggang River		
	Transportation	travel along	Provincial Highway 26	towards Longshand Road
		Area	94.4 ha	
	Topography	Slope	20.6	
		Aspect	Southwest	



Preparation for Data Disclosure

The relevant potential hazard data will be gathered through a briefing session to obtain the opinions of committee members and local governments. After making the necessary revisions based on their feedback, a review meeting will be held.

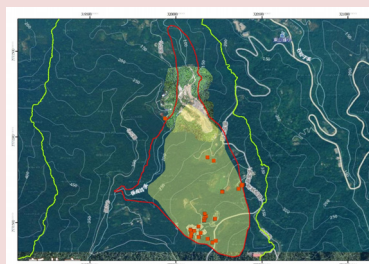
Review of Warning Criteria and Hazard Zonation

Update fundamental information of the potential landslide areas—such as on-site conditions, impact zones, and protected targets—and review the warning criteria and hazard zonation



Evaluation of Zonal and Block-Based Methods

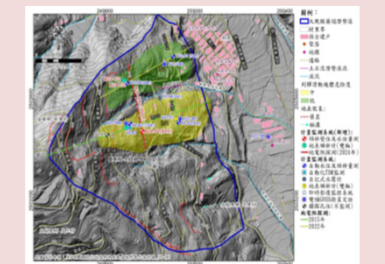
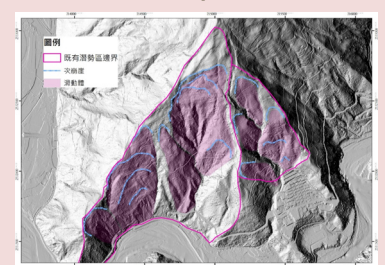
To establish and evaluate methods for zonal and block-based delineation in potential LSL areas, key blocks are identified, and impact area delineation tests are conducted based on the zonal and block-based concept.



New Taipei City LL002



Hsinchu County LL004



Other Cases

Under climate change, the large-scale landslide disaster prevention and mitigation program has completed its first and second phases, establishing a disaster prevention framework for large-scale landslides. However, with increasingly frequent extreme weather events and the need to continually invest substantial government resources, practical early-warning operations for large-scale landslide disasters should prioritize precision-based disaster avoidance, aiming to improve warning accuracy and operational efficiency. Therefore, it is recommended that the third-phase program focus on identifying key blocks within large-scale landslide-prone areas and developing multi-tier monitoring systems, forming the basis for a mid- to long-term plan for the third phase.



農業部農村發展及水土保持署
Agency of Rural Development and Soil and Water Conservation, MOA

Organizer: Disaster Mitigation and Monitoring Division, ARDSWC
Implementer: NCKU R&D Foundation
Duration: February to December, 2025



優質 · 效率 · 團隊