土石流潛勢地區地方政府及民眾之疏散決策因子

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摘　　要　受限於現行災害警戒系統精度不高、時間壓力以及諸多不確定因素，如何適時疏散土石流潛勢地區民眾，降低傷亡風險，已成為地方政府颱風豪雨期間經常面對的決策難題。本文以 AHP 問卷調查及成對比較方式，清楚呈現不同層級、不同區域之地方政府及民眾在疏散決策之差異，同時亦初步建立各級地方政府與民眾之土石流疏散避難決策模型，除可作為調整防災策略之重要參據外，後續亦可提供改進警戒系統及發展疏散決策支援系統之基礎資料。
關鍵詞：疏散避難、決策，地方政府，土石流、AHP。

The Factors of Evacuation Decisions for Local Governments and Inhabitants in Debris-Flow Potential Areas

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ABSTRACT　Owing to the limitations of disaster warning accuracy, time constrains and many uncertainties, deciding how to evacuate the inhabitants living in debris-flow potential areas in timely manner and reduce the risk of casualties has become a difficult decision for local governments during typhoons or heavy rainfall. Based on pair-wise comparison and the analytic hierarchy process, this study showed the significant difference between evacuation decisions for local governments at different levels and locations, and established preliminarily evacuation decision-making models. The findings also indicated that using only single disaster warning system is not enough to assist local governments in making evacuation decisions, and establishing a evacuation decision support system should be one of the priorities in future disaster prevention actions. The results of this study not only provide a strategy for strengthening disaster prevention but also offer a foundation for refining existing disaster warning systems and developing an evacuation decision support system.
Key Words : Evacuation, decision making, local government, debris flow, AHP.

一、前　　言

台灣由於地理及環境因素，每年五至十一月防汛期間飽受颱風豪雨之威脅，其中因颱風豪雨所導致的土砂災害，往往是最容易造成人命傷亡的災害類型。面對可能發生的土砂災害，除了採取硬體的治理工程外，建立以雨量為基礎的土砂災害警戒系統，適時疏散災害潛勢區內的民眾，已是世界各國降低土砂災害人命傷亡最直接且重要的方式。然而，每次執行疏散的場合，部份民眾不願意配合疏散，而與負責疏散工作之公職人員發生衝突之畫面也履見不鮮。依據 2010 年日本全年度的土砂災害統計資料，由於諸多原因，都道府縣雖已針對所轄市町村的許多地區發布土砂災害警戒，但負責執行疏散避難決策的市町村政府，對於已發布警戒之地區，真正執行疏散避難指示的比例只有 12%；而民眾接獲土砂災害警戒訊息後，採取自

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