

大高雄坡地社區環境潛勢災害資料庫系統之建置研究

何明錦^[1] 許逸祥^[2] 蔡光榮^[3] 余聖宏^[2] 李怡先^[1]

摘 要 大高雄都會區位處在台灣西南方，近年來由於都會區之擴張，促使邊際山坡地因受人為開發活動頻仍，遂造成坡地社區環境災害頻傳。且自 1999 年 921 集集地震以來，續遭逢桃芝、納莉、艾莉及敏督莉等多次颱風豪雨侵襲，更加劇大高雄地區坡地土砂災害之危害程度，危及坡地居民安全，實有必要對其坡地社區環境潛勢災害進行現況調查，並建立一套工程資訊管理模式，以期能輔助坡地社區之土砂災害與水土保持措施之規劃設計，進而降低坡地社區環境潛勢災害產生。有鑑於此，本研究乃針對高雄縣市 201 處之坡地社區環境潛勢災害點，先以 GPS 進行區域內之護坡工址定位與其現況調查，再以 GIS 及 RS 作為各類圖層資料檔之處理分析工具，最後以 GPS/GIS/RS 整合技術，依不同資料結構特性，作資料格式與座標系統整合，並建立以視窗環境為資訊平台之介面，終至完成大高雄坡地社區環境潛勢災害資料庫系統建置，以期提供後續高雄都會區坡地社區環境潛勢災害防治方案研擬與訂定坡地社區防救災體系之參考依據。

關鍵詞：環境災害、坡地社區、資料庫系統。

Establishment of an Environment Disaster Database System for Communities on Hillslopes in the Kaohsiung Metropolitan Area

Ming-Chin Ho^[1] Yi-Shaung Hsu^[2] Kuang-Jung Tsai^[3] Sheng-Horng Yu^[2] Yei-Sain Lee^[1]

ABSTRACT Environmental disasters of communities on hillslopes occurring in Kaohsiung metropolitan areas have been recognized not only as a big issue today but also a serious concern for the residents of Kaohsiung city. The administration of Kaohsiung metropolitan contains an area of 2947 km² includes both Kaohsiung city and county. Highly weathered geological formation, uneven distributions of rainfall intensity, steep geomorphology and intensive human activities have been identified as the predominant factors contributing to the environmental disasters of communities in the Kaohsiung slopeland in southern Taiwan. This study used the data from 201 different sliding spots within the communities on hillslopes to establish a risk assessment model. Applications of GIS integrated with GPS and RS technology would be necessary for this research. This project would also be critical to establishing an environmental hazard database system for the communities on hillslopes in the Kaohsiung metropolitan area. The database system was going to give

[1] 內政部建築研究所副所長、研究員

Deputy Chief, Researcher, Ministry of the Interior, Architecture and Building Research Institute, Taiwan, R.O.C.

[2] 國立屏東科技大學土木工程系(所)研究生

Graduate student, Department of Civil Engineering, National Pingtung University of Science and Technology, Pingtung 912, Taiwan, R.O.C.

[3] 國立屏東科技大學土木工程系(所)教授(通訊作者)

Professor, Department of Civil Engineering, National Pingtung University of Science and Technology, Pingtung 912, Taiwan, R.O.C. (Corresponding Author)
E-mail: kjtsai@mail.npust.edu.tw

何明錦、許逸祥、蔡光榮、余聖宏、李怡先：大高雄坡地社區環境潛勢災害資料庫系統之建置研究

a fundamental guideline of disaster prevention planning and help Kaohsiung city governments set up their own disaster information systems to keep urban areas safe and well developed in the near future.

Key Words: environmental disaster, communities on hillslope, database system.