

摘要

近年來，全球氣候變遷常導致洪災的頻率增加與規模變大，且世界各地重大水災頻傳，而臺灣亦在面臨氣候極端化易導致複合型災害的影響下，遭受洪災之風險也越來越高，防救災工作更加困難，嚴重衝擊人民生命及財產之安全。本研究係以 2009 年 8 月 8 日之莫拉克颱風侵台所引發豪大雨造成重災區之太麻里溪，針對其致災成因，探討並提出其防災減災之策略，期能有效減輕淹水災害。

本研究透過專家學者現勘及當地民眾訪視方式評估水利設施損害之情形，除了因超過防洪設計標準溢堤成災外，防洪構造物遭洪水破壞以致釀災比重更高。故於新設堤防工程時，除依規劃之治理計劃線佈設外，並以強化堤防型式以因應複合型災害改善之觀點進行探討，以減少堤防再次受災之機率。

另鑑於工程措施確有其侷限性，且因氣候變遷衝擊，致原有防洪設計標準不足，及考量國家財政能力之下只靠高經費之「工程措施」難以因應，僅能適度提高基本防洪保護標準；故另以推動水患自主防災社區之建立與運轉藉由較低經費之「非工程措施」，落實全民防災觀念之建立，強化洪水防護自主防護能力，以期達到災害零犧牲、損失最小化、災害低風險之目標。

關鍵字：氣候變遷、莫拉克颱風、太麻里溪、複合型災害、水患自主防災社區。

Abstract

In recent years, the global climate change has led to increased frequency and scale of disasters and caused severe floods around the world. Under the impacts of compound disasters caused by extreme climate due to global climate change, Taiwan society is experiencing more and more risk of suffering disasters. This has made the disaster prevention and rescue work are also getting more difficult and caused serious impacts on the lives and property of people. Therefore, the purpose of this study is, based on the reasons of causing damage, to investigate the flood prevention and mitigation strategies to mitigate flood disasters in Taimali River affected by strong rainfall caused by Typhoon Morakot in 2009 year.

This study assessed the damages of hydraulic structures through field inspections by the experts and scholars and interviews of the residents. Comparing with overflow causing flood due to exceeding flood protection standard, the hydraulic structures damaged by flood is more serious. Therefore, the new levees should not only be constructed in accordance with governance plan but also be taken strengthening the types of levees into account in response to compound disasters, from the view point of improvement, so as to reduce the frequency of suffering daming again .

Considering the reduced design standard of flood control due to limitations of engineering measures and the impacts of climate change and the improved but insufficient basic standard with engineering measures due to limited financial capacity, it is recommended to promote non-engineering measures such as self-protection communities for flood disaster. With the concept of implementing all-citizen disaster prevention and strengthening self-protection capability of flood mitigation, the goal of zero sacrifice, loss minimization and low disaster risks could be reached.

Keyword: Climate Change, Typhoon Morakot, Taimali River, compound disasters, self-protection communities for flood disaster

