

氣候變遷情境下對不同社會脆弱群體之淹水災害風險評估

Assessment of Flood Risk for Specific Social Groups Under Climate Change Scenarios

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摘 要

氣候變遷造成淹水災害衝擊增加，對於較脆弱的社群團體，可能造成更嚴重的衝擊。過去研究暴露對象主要以受影響人口為評估對象，風險多集中於人口密集處，對於特定人口社會脆弱度，較無法呈現。此研究以台南市為例，探討暖化情境下淹水災害風險與社會脆弱度相互關係，利用風險矩陣方式呈現各鄉鎮區的淹水風險與社會脆弱程度，並利用地理資訊系統（GIS）工具分析了淹水災害風險的空間分布，提供決策者了解不同社會脆弱對象（如老年人口、身障人口、保全對象等）在氣候變遷情境淹水災害風險的等級變化。將提出不同暴露對象的氣候變遷淹水災害風險圖，評估淹水災害對不同社會群體的影響程度，透過指標量化風險與社會脆弱性，針對淹水風險區域與社會脆弱度高的區域，強化防災策略提早最準備，以因應氣候變遷挑戰。

關鍵詞：暖化增溫情境、社會脆弱度、淹水風險等級

Abstract

Climate change has intensified the impact of flood disasters, potentially exacerbating outcomes for vulnerable community groups. Previous studies have focused on assessing exposed populations, with high risk levels concentrating on densely populated areas. It is unable to present the specific social vulnerabilities of flood impact due to climate change. This research utilizes Tainan City as a case study to investigate the correlation between flood risk and social vulnerability under warming scenarios. Utilizing a risk matrix approach, it demonstrates flood risk and social vulnerability level in different townships. Geographic Information System (GIS) tools analyze the spatial distribution of flood risk, enabling policymakers to comprehend varying risk levels among different socially vulnerable groups (e.g., elderly, disabled, low-income populations). The study will present climate change flood risk maps for different exposure groups, assessing the impact of floods on diverse societal groups. By quantifying risks and social vulnerabilities through indices, the research aims to enhance disaster preparedness strategies in advance and adaptation the challenges of climate change.

Keyword: Warming scenario, social vulnerability, flood risk levels