

民眾參與平台運作及土壤調查先期探討

Initial Exploration of Public Participation Platform Operation and Soil Survey

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摘要

南投縣魚池鄉頭社盆地四周環山，中央地勢平緩，降雨時水流集中至盆地，導致盆地中央地區多為泥炭土堆積；盆地中央目前主要為農業或廢耕地。

研究顯示，泥炭土具有高度的碳匯存能力，但長期風化或過度排水可能導致碳匯能力降低，甚至轉變為碳排，為了推動永續水安全，本計畫旨在探討頭社盆地的土壤特性、土地使用現況以及利害關係人。透過頭社共好大小平台，計劃舉辦兩場跨域工作坊和一場共學活動，深入了解當地的土地利用狀況及泥炭土的分布情況，以建立泥炭土的現況資料庫，推動相關研究進展。

本案舉辦了2場跨域工作坊及1場共學活動，工作坊收集了在地民眾的建議，並邀請專家學者分析了土壤特性調查及前期計畫成果，並建議進一步探勘泥炭土層及評估灌溉系統。共學活動引導民眾了解在地滯洪設施和智慧水技術，並介紹了台積電的灌溉系統，以提升了公眾對於滯洪及智慧水技術的認識與認同。

根據本研究中土壤碳含量和酸鹼值的分析結果，盆地中心土壤特徵為泥炭土，建議未來針對盆地覆土層進行探勘，以瞭解盆地之泥炭土範圍。

關鍵字：魚池鄉頭社盆地、泥炭土、民眾參與、土壤特性調查

Abstract

Toushe Basin in Yuchi Township, Nantou County, is surrounded by mountains, with flat terrain in the central basin. During rainfall, runoff from the surrounding areas rapidly concentrates in the basin. Currently, the central area of the basin is predominantly used for agriculture or fallow land.

Studies indicate that peat soil possesses a high capacity for carbon sequestration, but prolonged weathering or excessive drainage may diminish this capacity, potentially leading to carbon emissions instead. To promote sustainable water security, this project aims to investigate the soil characteristics, current land use, and stakeholders' interests in Toushe Basin. Through the Toushe Community Engagement Platform, the project plans to conduct two interdisciplinary workshops and one collaborative learning activity to deepen understanding of local land use patterns and peat soil distribution, establishing a database on peat soil conditions to advance related research.

The project has organized two interdisciplinary workshops and one collaborative learning activity. The workshops gathered local community input, and invited experts to analyze soil surveys and preliminary findings, recommending further exploration of peat soil layers and evaluation of irrigation systems. The learning activity guided the public in understanding local flood mitigation infrastructure and smart water technologies, introducing TSMC's irrigation system to enhance public awareness and endorsement of flood control and smart water technologies.

Based on soil carbon content and pH analysis from this study, the central soils of the basin exhibit characteristics of peat soil. It is recommended to explore the overlying layers in the basin to understand the extent of peat soil in the area.

keyword : Toushe basin, Peat soil, Public participation, Soil survey