

鯢溪流域管理模式之探討

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摘要

鯢溪是秀姑巒溪在花蓮縣富里鄉的支流，主流長度 16.91 公里，河道蜿蜒曲折，早年因鯢群出沒而得名，因地屬偏遠較少受人為開發影響，保留自然、豐富而多樣的生態及特殊的地質與地景。惟從民國 70 年代開始，河床上的大塊石被取走用於興建兩岸的各式堤防、護岸、駁坎和田埂等，河床逐漸下切。另為兩岸農田灌溉及穩定河床之需，陸續興建各式橫向構造物達 23 座之多，致河川棲地環境逐漸劣化，也阻斷日本禿頭鯢及台東間爬岩鰍等洄游魚類（阿美族人稱之為哈拉）回家的路。

經濟部水利署第九河川局從 95 年起開始投入鯢溪復育計畫，水利規劃試驗所也從 102 年起陸續辦理棲地調查等工作。第九河川局於 108 年更進一步以恢復鯢溪河川生命力為目標，成立全台第一個以河川全流域為範圍的鯢溪流域管理平台，邀各相關政府部門、在地民眾、NGO 及專家學者等，跨域共學、凝聚共識、資訊共享及公私協力的方式，推動還地於河、還石於河、還水於河、減法工程等工作，共同為恢復鯢溪的河川生命力目標而努力。在流域管理大平台之下，另依河川工程、水質水量、生態復育及農村再生等議題設置小平台，釐清問題、尋求對策、對齊資源、解決問題。

本文主要探討鯢溪流域治理與管理模式的轉變歷程，並分享全流域管理與結合國土綠網藍綠縫合之理念下，公私協力恢復河川生命力之管理模式及初步成果，期盼藉鯢溪管理的案例分享，可以擴大影響至其他河川流域。

關鍵字：鯢溪、公私協力、跨域治理、國土綠網、恢復河川生命力

Examination of the Watershed Management Model for the Bie River

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Abstract

The Bie River is a tributary of the Xiu-Gu-Luan Creek in Fuli Township (Hualien County, Taiwan). It has a total length of 16.91 km and features a winding and tortuous course. The Bie River's name is derived from softshell turtles (called bie in Chinese)—a type of freshwater turtle with a soft shell—that used to live in this river in groups. In the past, this area was subjected to little human influence because of its remote location. Therefore, the natural, rich, and diversified ecological, geological, topographical features remained intact. However, since the 1980s, the large rocks on the river bed have started to be used in the construction of various embankments, revetments, rip-raps, and field ridges, which has resulted in the gradual sinking of the river bed. For the purpose of irrigating the farmlands along both sides of the Bie River and to stabilize the river bed, 23 horizontal structures have been constructed over the years. The building of these structures have caused the habitat environment of the river to deteriorate, and the structures have also blocked the paths of migratory fish species such as *Sicyopterus japonicas* and *Hemimyzon taitungensis* (the path is known as Hala to the Amis, an indigenous community native to Taiwan).

Since 2006, the 9th River Management Office of the Water Resources Agency, Ministry of Economic Affairs, has been investing in the restoration project of the Bie River, and the Water Resources Planning Institute has also been engaging in habitat survey work since 2013. With the restoration of the vitality of the Bie River as the target, the 9th River Management Office established the Bie River watershed management platform in 2019; this is the first management platform in Taiwan that includes the total catchment area of a river in the management scope. The 9th River Management Office has invited relevant governmental departments, the local public, nongovernmental organizations, experts, and scholars to collaborate in the conservation work (e.g., returning of land, stones, and water to the river and simplicity-oriented engineering)—through cross-disciplinary learning, consensus building, information sharing, and public-private cooperation—toward the goal of restoring the vitality of the

Bie River. Under the large watershed management platform, smaller subplatforms were established for subtopics such as river engineering, water quality and quantity, ecological restoration, rural rejuvenation; these subplatforms were used to clarify problems, seek solutions, align resources, and solve problems.

The main objective of this study is to examine the transformation journey of watershed governance and the management model for the Bie River. A further aim is to discuss the preliminary outcomes achieved in restoring the vitality of the Bie River with reference to the management model that combines the elements of total watershed management, National Ecological Green Network establishment between the ruling and opposition parties in Taiwan, and public–private collaboration. The researchers hope that by sharing the successful management case of the Bie River, the watershed management efforts of other rivers may be improved.

Keywords: Bie River, public–private collaboration, cross-boundary governance, National Ecological *Green* Network, restoring river vitality