

Does NbS Performance Drive Investment? Stakeholder Perceptions and Financing Mechanisms for Freshwater Restoration.

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Managing freshwater systems has become a major policy priority due to the growing threats from climate change, urbanisation, and agricultural intensification. Nature-based Solutions (NbS) have gained recognition as eco-innovative approaches capable of addressing these challenges. Despite this recognition, less than one per cent of total global water management financing is channelled to NbS projects. The study examines stakeholder perceptions of NbS performance and sustainable financing pathways for mainstreaming and upscaling NbS in freshwater systems in Ireland. A sequential explanatory design was employed and data were collected through questionnaire surveys (n = 105) and semi-structured interviews (n = 14). Preliminary findings show positive perceptions of NbS performance, with scale of implementation being an important determinant of their effectiveness. While public financing remains the preferred financing pathway, it was considered inadequate for covering all phases of freshwater NbS projects lifecycle. The study identifies key barriers in financing freshwater NbS projects, including financial architecture, institutional constraints, administrative challenges, and risk and uncertainty. Collaborative governance, societal acceptance, financial restructuring, and institutional integration were enablers that could facilitate successful financing of NbS projects. By examining the intersection of perceptions of NbS performance and financing mechanisms, the study makes an original contribution by proposing a context-specific financing framework that can be a valuable tool for policymakers and NbS practitioners seeking to design and implement interventions to strengthen resilience in riverine environments.

Keywords: nature-based solutions, stakeholder perception, freshwater management, sustainable finance, lifecycle financing