

Can Communities of Practice trigger a shift in environmental management from working *against* nature to working *with* nature?

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A recently [published paper](#)¹ demonstrates how [iCASP's Yorkshire natural flood management Community of Practice](#) has been effective in enhancing the uptake of nature-based solutions onto risk management agendas.

Context: Nature-based solutions (NBS) are measures inspired and supported by nature aiming to tackle environmental and societal challenges. An example of NBS is natural flood management (NFM), which applies nature-based techniques to manage the sources and pathways of flood waters². Examples of NFM measures include river restoration, floodplain storage enhancement, natural dam installation, among others. Unlike traditional forms of flood risk management led by engineering experts who design isolated flood defences, NFM requires the involvement of a wide range of stakeholders working together to deliver measures across the whole catchment.

Rationale: This approach to flood risk comes with major uncertainties, including complex funding applications, incomplete data on the effectiveness of NFM interventions and inaccessible/complex monitoring tools³. It also requires stakeholders from different backgrounds to collaborate effectively and efficiently.

To overcome these challenges the Yorkshire Integrated Catchment Solutions Programme (iCASP)⁴ initiated a Yorkshire-wide NFM Community of Practice (CoP), working with the Environment Agency, as an innovative forum bringing together people working on different NFM projects to develop expertise. Set up in 2018, its aim was to facilitate discussions between NFM stakeholders, align values and overcome challenges to NFM delivery. The meetings organised through the CoP provide a forum for networking, learning and disseminating best practice: they are designed to build regional capacity amongst NFM practitioners through sharing knowledge and discussing challenges, opportunities, and solutions⁴. CoP members are drawn from a range of professions and disciplines. These include large bodies, such as local authorities, statutory agencies, universities and conservation groups and charities, such as rivers and wildlife trusts. However also making a valuable contribution are volunteers and members of the community through voluntary organisations such as River Stewardship Company, Slow the Flow, Treeresponsibility, St Nicks, Conservation Volunteers and Friends of Bradford Beck. The

¹ King, P., Martin-Ortega, J., Armstrong, J., Ferré, M. and Bark, R.H., 2023. Mainstreaming nature-based solutions: What role do Communities of Practice play in delivering a paradigm shift?. *Environmental Science & Policy*, 144, pp.53-63.

² SAIFF. 2011. What is meant by restoration, enhancement, and alteration under the Flood Risk Management (Scotland) Act 2009. Edinburgh: Scottish Advisory and Implementation Forum for Flooding.

³ Bark, R.H., Martin-Ortega, J. and Waylen, K.A., 2021. Stakeholders' views on natural flood management: Implications for the nature-based solutions paradigm shift?. *Environmental Science & Policy*, 115, pp.91-98.

⁴ iCASP is a programme funded by the Natural Environment Research Council to translate existing environmental research into concrete "solutions" and tools, in order to overcome complex environmental challenges. Available at: <https://icasp.org.uk/>

value of the CoP was recognised by the Regional Flood and Coastal Committee, who awarded £80,000 of local levy funding following a successful bid by City of Leeds Council to continue the CoP for a further three years facilitated by iCASP and owned and directed by wider members of the community. For the past year, Mott MacDonald has sponsored the CoP providing support and direction for members.



Aims: This NFM CoP was an ideal case to assess the impact of a ‘collaborative learning network’ on NFM design and delivery in the Yorkshire region. The evolving dynamic of the CoP meetings allowed researchers to investigate whether a CoP had the ability to trigger a shift in stakeholders’ mindsets whereby “*with nature*” - based techniques are favoured to manage environmental risks over traditional “*against nature*” - based measures.

Methods: Researchers combined data collected before the initiation of the CoP as well as throughout the CoPs development (6 meetings occurred between 2018 – 2020). A combination of questionnaires and interviews were used to capture data from a total of 64 NFM practitioners and researchers.

Key findings: Findings showed that the NFM CoP helped overcome major challenges identified by the members prior to its inception. Following continuous CoP meetings, participants reported having expanded their NFM knowledge and skill base, exchanged information and resources between each other and broadened their NFM network. These actions led to improvements in NFM schemes across Yorkshire. In addition, CoP participants evidenced a shift in their perceptions and attitudes towards how risks should be managed. While changes were mostly incremental, some signs of potential transformational change emerged. For example, some demonstrated the need for fundamental changes within the current flood management agenda, questioning pre-existing governance structures and activities which did not promote the uptake of NFM. This raises promise that if CoPs were sustained in the longer term, they could consist of critical tools for enhancing the acceptance of nature-based solutions onto risk management policy agendas.