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COASTAL NATURE LAB: CRAFTING NATURE BASED SOLUTIONS FOR COMMUNITY-LED COASTAL PROTECTION

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An increasing number of coastal communities are facing the impacts of climate change through environmental threats such as flooding, erosion, and seawater intrusion, which are threatening their long-term sustainability.

Because of the scale of the issue, difficult decisions are being made by local governments on where to allocate resources. In England and Wales, the Shoreline Management Plans (SMP), provide non-statutory, data driven recommendations for local coastal adaptation pathways. Communities in areas where the approach is of no active intervention are ultimately left with no support.

This contribution discusses the potential for an additional approach to coastal adaptation, focussed on community involvement in the design, making and caring for small scale interventions for hyperlocal coastal protection.

It does so by presenting the initial findings and reflections from Coastal Nature Lab, an interdisciplinary pilot project investigating the benefits and viability of using locally sourced natural materials (willow, wool, and grasses) in the design of locally relevant interventions for coastal protection. In the project, researchers in design, engineering, and coastal processes worked with artists and craftspeople to design patterns for woven structures and nets for sediment trapping to encourage saltmarsh regeneration in intertidal areas. These structures were produced by local residents in Morecambe Bay during skill-sharing workshops and deployed and monitored over the summer of 2024.

The learnings from this project are being collected in an Open Handbook, which will offer guidance and support conversations on the possibilities of proactive community involvement in coastal adaptation.