Noosa Council

Prioritising Coastal Wetland Restoration Using Bundled Ecosystem Services

Case Study

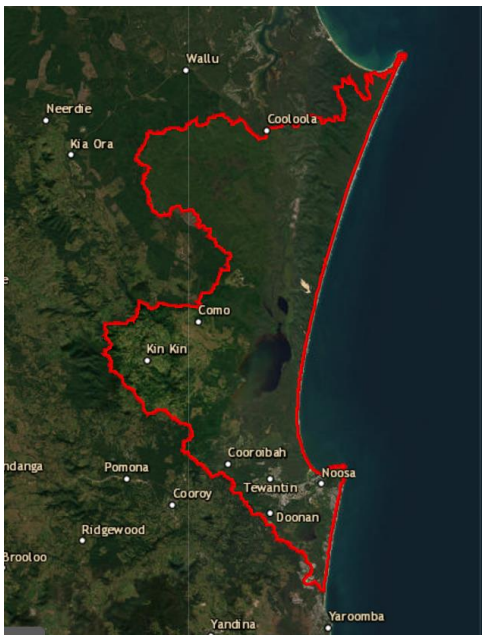
Introduction

- Noosa's Coastal Hazards Adaptation Plan identified biodiversity and ecosystems that are most vulnerable to coastal hazards due to sea level rise
- Noosa Council has strong targets to be a net zero, nature positive and climate resilient region
- Coastal wetlands have significant co-benefits beyond carbon abatement that need to be assessed when identifying potential sites for restoration

Project Details

- Partnered with blue carbon experts at the University of Queensland and Traditional Custodians, the Kabi Kabi Peoples Aboriginal Corporation, to identify the highest priority coastal wetlands to restore in the Noosa River Catchment using a novel framework for assessing sites based on multiple co-benefits

Project Location



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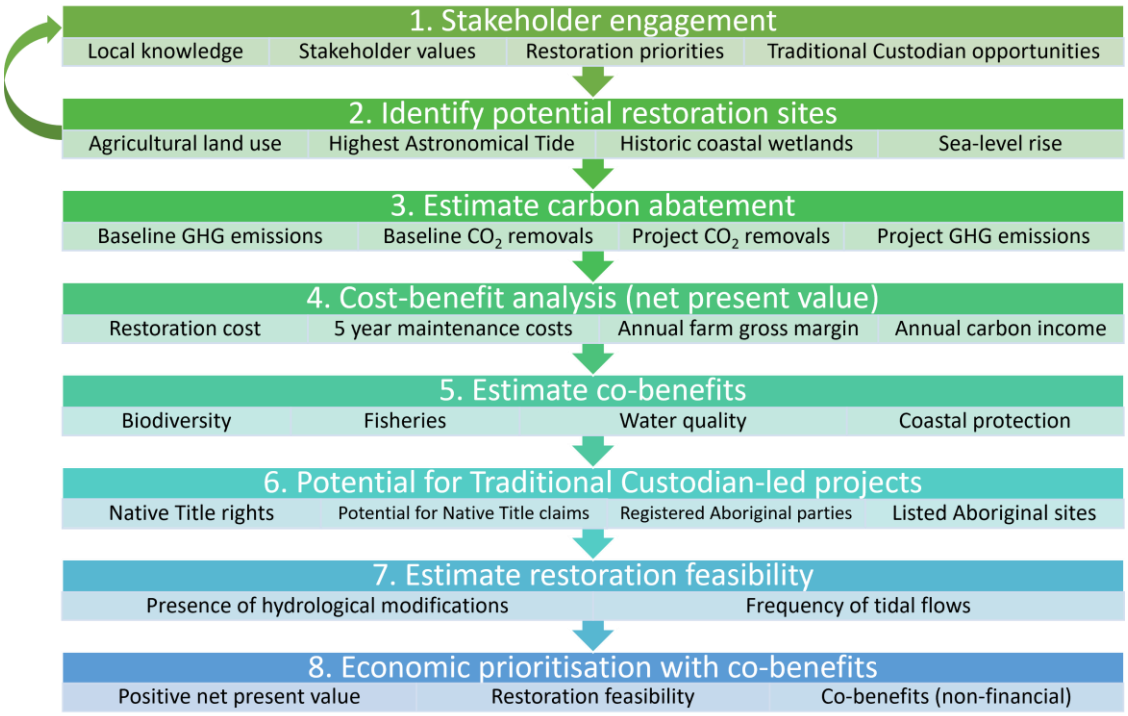
Methodology



Hagger et al. (2022) *Coastal wetland restoration for blue carbon in Australia. Values-based approach for selecting restoration sites.* Report to the National Environmental Science Program, University of QLD.

Engagement Activities

- Values-framing and prioritisation workshops with Council staff and targeted external stakeholders
- Multiple workshops and ongoing communication with Kabi Kabi Peoples Aboriginal Corporation
- Monthly meetings with UQ

Process

- Establish research agreement & data sharing agreement with UQ
- Engage with Kabi Kabi
- Desktop spatial analysis
- Hold internal workshops
- Assess co-benefits
- Assess economic feasibility
- Sensitivity analysis
- Cost-effectiveness analysis
- Workshops to close project

"This project was particularly powerful as it saw the convergence of traditional ecological knowledge from Kabi Kabi First Nation and best practice blue carbon science from the University of Queensland applied for climate-ready conservation in a UNESCO Biosphere Reserve" – Shayan Barmand, Project Lead, Noosa Council

Problems / Challenges

- Establishing contracts with the University took more time than expected. It's important to start early, have a template research agreement and data sharing agreement ready to go at the start.
- Finding PhD students and sticking to contractual timeframes can take time and is often subject to unexpected delays. It is important to be flexible, have a contingency plan with Research Assistants and employ adaptive management.

Outcomes

- Selection of coastal wetland sites across the Noosa River Catchment that return highest benefit for restoration effort for 2020, 2040, 2070 and 2100
- Final report with co-benefits and spatial datasets for each site
- Co-presentations at conferences
- Published papers in academic literature as part of PhD research
- Established strong relationships both with UQ and KKPAC
- Commitment with UQ and KKPAC to continue project into Phase 2 ground-truthing and site inspections of priority sites

Project Partners

- Dr Valerie Hagger, Dr Renee Rossini, Maddison Brown and Dr Catherine Lovelock, University of Queensland
- Directors of the Kabi Kabi Peoples Aboriginal Corporation
- Noosa Council's Strategy & Sustainability Branch as leads, with support from the Environment Services Branch

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Kabi Kabi Peoples Aboriginal Corporation

For more information
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