

## Policymakers

### Project 3.1.4 Optimizing the management of riparian zones to improve the health of the Great Barrier Reef

Photo: Shane Westley



#### Field assessments and landholder surveys

Photo: John Larmour



- Explored the success of previous investments via field-based assessments of improved water quality (as indicated by a Condition Score), and face-to-face semi-formal social surveys.
- Reviewed the requirements for widespread landholder participation in riparian remediation projects.
- Quantified co-benefits through field-based assessments of biodiversity (as indicated by Plant Cover index and landscape-scale metrics of riparian remediation project size and connectivity) and carbon mitigation.

Remediation of riparian vegetation can improve the health of the Great Barrier Reef by reducing stream bank erosion.

This requires remediation projects to be successful at not just the project-scale, but also the catchment-scale through widespread landholder participation.

The widespread uptake of riparian remediation works will require landholders aligning environmental and production goals.



Photo: John Larmour

#### What are the key drivers and barriers that govern the extent of landholder participation?

- The most important driver was private benefits-widespread uptake of riparian remediation works will require landholders aligning environmental and production goals, particularly in regions of relatively low productivity that offer less flexibility, e.g. destocking during drought.
- The most important barrier was the perception that riparian remediation projects were not part of normalising behaviour, and were complex and impractical.

Riparian areas play a disproportionately large role in providing benefits to biodiversity and carbon mitigation due to their relatively fertile alluvial soils and increased moisture levels.

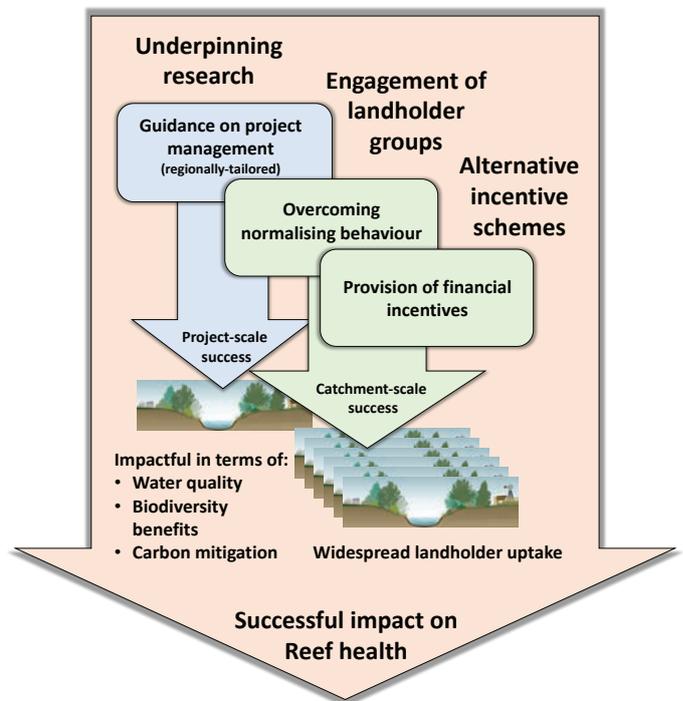
- Biodiversity benefits were attained after 10 years where grazing extent was short. These benefits may be further enhanced by increasing the project size and connectivity.
- Rates of sequestration of carbon in planted or regenerating trees and shrubs were up to 2- and 7-times higher than anticipated based on rain-fed stands of similar age, species mix and stand stocking densities growing under the same climatic conditions in the wet- and dry-tropics, respectively.
- Existing remnant trees common within many project areas also provide a significant store of carbon.



Photo: John Larmour

### Recommendations for project- and catchment-scale success

- Implementation of a landholder incentive scheme that directly links to outcomes of improved water quality (e.g. indicated by Condition Score), biodiversity (e.g. indicated by Plant Cover Index) and carbon mitigation (e.g. indicated by ERF methodologies).
- This incentivises not just project establishment, but also its on-going maintenance.
- With all environmental services considered, landholder 'stewardship' payments may be sufficient to overcome financial barriers, thereby facilitating the scale of participation required to have real outcomes for Reef health.
- Base funding for landholder groups is also required to facilitate local demonstrations/learnings.



- Support is required for landholder groups to learn from local demonstrations, thereby informing practical management guidelines that ensure multiple benefits, including agricultural production.

**Further information**  
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This project is supported through funding from the Australian Government's National Environmental Science Programme