

Project Summary

This project will work with NRM organisations, Indigenous groups, state, local and federal government organizations, industry, and non-government agencies to provide a scientific basis to support and evaluate wetland system repair projects. The study area includes sites in the wet and dry tropics, and will improve our understanding to better tackle a range of issues including managing invasive aquatic weeds, barriers to fish passage, control of feral animals, and water quality improvement. This project will also broker knowledge and lessons learnt to increase the capacity of the NRM organisations, Indigenous and community groups, as well as individual landholders, to design and undertake effective and lasting wetland repair projects.

Problem

Coastal wetlands in the catchments of the Great Barrier Reef (GBR) provide extensive environmental, cultural and economic value. These wetlands play a role in protecting our coastline, buffering against wet season flood waters, improving water quality and maintaining fisheries productivity. While there is still approximately 87% of remnant wetlands left in the catchments of the GBR, only 30% of floodplain wetlands exist in some catchments. The remaining wetlands have been modified or impacted because of land use change (such as agricultural, aquaculture, peri-urban/urban, and industrial expansion).

Many of our wetlands no longer function properly and have lost their original value as habitat for native plants, fish, birds and other animals, have reduced capacity for carbon sequestration, and reduced flood storage capacity. They suffer from widespread alien weed and pest species infestations and degraded water quality. A large number have also lost their connectivity with estuaries that flow into the GBR lagoon. This in turn has impacted species that have a critical estuarine lifecycle phase and those species with commercial value that need to migrate between marine and freshwater habitats (e.g. barramundi), relying on this connectivity between the reef and shallow tidal and freshwater wetlands to reproduce and maintain their populations.





Solutions

Recognising the role and value of wetlands as part of the broader Great Barrier Reef ecosystem, government agencies continue to invest funding through Natural Resource Management (NRM) organisations, community groups and landholders to repair and restore our wetlands.

A number of wetlands projects have been undertaken or are underway to improve their overall function. These projects have focused on a range of threats including removing weeds (both aquatic and land species). More recently projects are reinstating natural water flows and connections to estuaries and installing fish passage structures to help fish move between wetlands and the broader marine environment. Feral animals control programs are now focusing more on wetland environments and increasingly constructing water treatment systems are being built to remove contaminants flowing from surrounding land.

Outputs

This project has a key focus on delivering practicable solutions for project partners. Scientific data generated will support project partners with their local restoration sites. Examples how these data will be used include:

- Scientific publications;
- Factsheets and technical reports;
- Reporting milestones reports for end users;
- Media reports and newsletters;
- WetlandInfo (Queensland Government);
- International wetlands newsletters and magazines.



Further information

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