

Research to support the Great Barrier Reef strategic assessment

The Australian Government has invested in new research to inform the comprehensive strategic assessment of the Great Barrier Reef World Heritage Area and adjacent coastal zone. This research will complement the wide variety of established research and literature also informing the strategic assessment.

The research has been targeted to address key information gaps relating to the future management of the Great Barrier Reef World Heritage Area and to address issues raised by the World Heritage Committee. Reports will be publicly released on the websites of the Department of the Environment and the Great Barrier Reef Marine Park Authority after they have been finalised.

The research is being funded under the Sustainable Regional Development program, which aims to secure a sustainable future for Australia's high growth regional areas through regional sustainability planning and strategic assessments. The funded projects build on the substantial research investment the Australian Government is making through the National Environmental Research Program Tropical Ecosystems Hub.



Blue Staghorn Coral with brightly colored shell at Lady Musgrave Island on the Great Barrier Reef © Cathy Zwick

Understanding outstanding universal value

The common feature of all properties inscribed on the World Heritage List is that they meet the requirement of Outstanding Universal Value. The Great Barrier Reef was inscribed in 1981 for meeting all four of the natural criteria for Outstanding Universal Value and for its integrity. The Australian Government has funded research to better define the aesthetic (criterion vii) and geological values (criterion viii) of the property to improve management of these values.

- Defining the aesthetic values of the Great Barrier Reef
 World Heritage Area: To identify and map aesthetic
 values of outstanding universal value and analyse the
 sensitivity of those values to particular impacts.
- Geological and geomorphological features of outstanding universal value in the Great Barrier Reef World Heritage Area: To identify geological and geomorphological features of outstanding universal value that may not have been previously detailed and provide an overview of the pressures affecting those values.

Top image: One Tree Island Reef, Great Barrier Reef © Commonwealth of Australia (GBRMPA)

Informing management of coastal development

- Improved dredge material management for the Great Barrier Reef Region: To provide analysis and information to inform future dredge spoil management decisions for the five major ports and one marina (Rosslyn Bay) in the Great Barrier Reef World Heritage Area.
- Identification of impacts and proposed management strategies associated with offshore ship anchorages in the Great Barrier Reef World Heritage Area: To identify current and potential future environmental impacts of offshore anchoring for the five major ports in the Great Barrier Reef World Heritage Area and propose management options.
- Great Barrier Reef coastal ecosystems assessment framework:
 To examine ecosystem services provided by coastal ecosystems in seven basins, impacts in these basins (past, present and future), and identification of areas important for protection or restoration.
- International best practice environmental standards for ports: To identify international benchmarks in the management of environmental impacts of ports and their potential application in an Australian context.
 This project is likely to provide information applicable beyond the Great Barrier Reef World Heritage Area.

Cumulative impact management and integrated monitoring

- Great Barrier Reef resilience decision framework: To develop a qualitative framework for understanding cumulative impacts on the resilience of coral reef and seagrass ecosystems to inform decision making in the Great Barrier Reef World Heritage Area.
- Integrated monitoring framework for the Great Barrier Reef World Heritage Area: To establish a framework for a standardised and integrated ecological, social and economic monitoring program to address critical information needs and align monitoring programs. The framework may be able to be applied to other regions of the country to inform the development of other integrated monitoring approaches.

Socio-economic

Economic contribution of the Great Barrier Reef: To update
our understanding of the economic contribution that
reef based activities (tourism, recreation, commercial
fishing and scientific research) make to the Australian
economy, including regional-scale analysis.

Further information

www.environment.gov.au/coasts/gbr

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