

Sustainable natural and managed ecosystems and the built environment

Connecting people and places

Take a look at our **STRATEGIC VISUALISATION TOOL** to learn about Queensland's scientific capability in new industries. The tool links with the Queensland Science Capability Directory that provides information on all the research centres in the state. You can also connect with our sector leads.

Visit www.qld.gov.au/ScienceEmergingIndustries



Queensland has one of the best science systems in the world for managing the natural environment. We are developing innovative techniques to ensure the sustainability of our ecosystems and built environment.

Dr Adrian Volders
Trust for Nature

Queensland's competitive advantage

Queensland has some of the most diverse natural ecosystems on the planet, with 13 terrestrial and 14 marine thriving bioregions, including famous World Heritage sites like the Daintree Rainforest and the Great Barrier Reef, some of the best managed large ecosystems on Earth.

Queensland has a history of enduring and growing from environmental extremes, resulting in an extensive scientific research base. Additionally, we have access to the world's oldest environmental knowledge and supportive legislation to ensure the rights of First Nations peoples are recognised and respected to ensure mutual benefit from biodiscovery.

Queensland's universities count among the top providers of skilled workforce in the environmental sector, outranking all other Australian states.

Combined with the proximity to a majority of the world's population and extensive collaborative network in all major biospheres, these advantages make Queensland a global role model in environmental management.

R&D capabilities

Driven by the local need for strong environmental and resource management and inspired by millennia of environmental knowledge, Queensland's research community has developed best-practice solutions, ranging from desert ecosystem mapping and land management to world-leading reef resilience measurements.

Intricately connected with the local system of governance, research and development (R&D) efforts in the field of ecosystem studies benefit from a multitude of community and government initiatives and extensive grant opportunities.

Our network of more than 120 research facilities addresses issues arising from global challenges like population growth and climate change. Solutions discovered here have led to smart, sustainable, and liveable cities with built structures seamlessly integrated into the natural environment.

Queensland is a strong hub of environmental research, with proven expertise in the fields of coastal and marine management and engineering, population modelling and fire ecology.

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Queensland—a great place to invest and do business



>50% Australian biodiversity



83,000 km² national parks



#1 state

to introduce biodiscovery legislation aligning with the Nagoya protocol



>120 research facilities



Case study

Manta Ray Bay reforestation

After an intense storm (cyclone Debbie) in 2017 that caused serious impacts to the Great Barrier Reef, the Queensland Parks and Wildlife Service and the Great Barrier Marine Park Authority led a project to boost coral growth.

Coral bommies (outcrops of coral reef higher than the surrounding platform of reef) were placed in the intertidal zone in Manta Ray Bay, Hook Island, to create new opportunities for coral growth.

After 16 months, 73 per cent of the bommies showed activity of remnant corals and 22 per cent showed new coral growth, from many different types of coral species. The new coral growth also allowed reef fish to return to the affected reef areas.

The island is a popular place for tourism, and restoration of the Manta Ray Reef encouraged tourists to return. The project helped to regenerate the reef as well as assist the region with additional tourism revenue.

For more information about Queensland's science and innovation capabilities, please visit:



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