



Investment Strategy *Executive Summary*

The principal objective of the Partnership is to achieve significant improvement in the health of the Great Barrier Reef World Heritage Area.

The Great Barrier Reef is one of the most spectacular natural wonders on the planet. It is celebrated for its beauty, its complexity, and an inherent resilience that has allowed it to thrive and grow over hundreds of thousands of years. But that resilience is under threat.

The accumulated impacts of climate change, poor water quality and crown-of-thorns starfish are having a dramatic effect on the state of the Reef and the recent IPCC Report¹ paints a grave future.

There is no doubt that the Reef needs a global solution to climate change – the biggest threat it faces. Curbing temperature rises to the lowest thresholds in the Paris Agreement is essential, but the science tells us that in addition to global action we need to take local action to build the resilience of the Reef.

This is where the Reef Trust Partnership (the Partnership) – a landmark \$443 million Commonwealth grant – is focused, delivering outcomes for the Reef across five key areas:



1. Water Quality
2. Crown-of-Thorns Starfish (COTS) Control
3. Reef Restoration and Adaptation Science
4. Community Reef Protection and Traditional Owner Reef Protection
5. Integrated Monitoring and Reporting

Cutting across all five areas are science and innovation, sustainable financing and communication and engagement – integral elements for the effective design, delivery and sustainability of the Partnership.

The goals and objectives of the Partnership are anchored within the Reef 2050 Plan – the overarching framework for protecting and managing the Reef until 2050.

The Partnership brings us all together – in one of the most exciting and important collective efforts of our time. It builds on the great work of many organisations and individuals – accelerating and amplifying their efforts for the benefit of the Reef.

The Partnership's design is structured around three core pillars

Acceleration	Collaboration	Legacy
		
<p>Recognising the Reef cannot wait and the task is urgent, we need to:</p> <ul style="list-style-type: none"> • Scale what we know and is proven • Develop or adapt solutions where none exist • Create step change through innovation • Be prepared to take big, bold steps 	<p>Understanding that no single group can tackle this alone, we need to:</p> <ul style="list-style-type: none"> • Embed partnerships as a founding ethos • Grow \$443 million in public funds to \$800 million through co-financing • Create local ownership of projects through co-design and co-delivery • Bring in new ideas and fresh perspectives 	<p>Giving the Reef outcomes that live beyond the end of the Partnership, we need to:</p> <ul style="list-style-type: none"> • Grow and strengthen capacity • Drive long-term behavioural change • Implement sustainable financing solutions • Create new business and delivery models

Impact

¹ IPCC (2018). Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [V. Masson-Delmotte et al. (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp.

The purpose of this Investment Strategy is to provide a high-level roadmap for each area.

1. Water Quality

Run-off of sediments, nutrients and pesticides from land-based activities poses one of the most significant long-term threats to the health and resilience of the Reef. Efforts to address poor water quality have become increasingly important due to the cumulative impact from other threats including climate change, crown-of-thorns starfish, tropical cyclones, coastal development and some aspects of direct use (such as fishing, shipping and port activities).

Significant time and resources have been invested into water quality improvement programs, yet progress towards water quality targets has been slower than expected.

Work undertaken in recent years provides a great foundation upon which to build and act in:

- Developing a portfolio of on-ground measures that reduce pollution loads of sediment, nutrients and pesticides in priority locations
- Accelerating existing efforts and supporting new initiatives to develop more coordinated approaches to on-ground support (extension officers) including peer to peer learning and stewardship programs
- Identifying alternative data sharing models and systems such as data cooperatives that deliver value back to providers and enable more effective targeting of investment
- Investing in scaleable innovative financing mechanisms which provide a pathway to long-term funding.

An investment of \$201 million has been committed to Water Quality improvement activities.

2. Crown-of-Thorns Starfish Control

The crown-of-thorns starfish (COTS) is native to the Great Barrier Reef. But in outbreak mode they become voracious predators of live coral that can number in the millions, decimating entire reefs. How often outbreaks occur, and their severity, is influenced by multiple factors including the amount of coral present, a reduction in natural predators, water circulation patterns and water quality.

Traditionally, intervention has focused on controlling an outbreak once it has occurred, however, new efforts have identified the need to break the cycle at several stages, most critically before an outbreak happens.

Action will be taken in:

- Supporting existing manual COTS control programs and seeking improvements in efficiency and effectiveness
- Developing early detection and intervention systems such as using autonomous underwater vehicles and automated analysis to improve monitoring and surveillance
- Exploring mass control methods including natural predators, pathogens and genetic technologies (subject to scientific, regulatory and community acceptance).

An investment of \$57.8 million has been committed to Crown-of-Thorns Starfish Control.

3. Reef Restoration and Adaptation Science (RRAS)

In 2016 and 2017 the combined impacts of back-to-back bleaching events and Tropical Cyclone Debbie resulted in the loss of an estimated 50% of shallow water corals on the Great Barrier Reef. Even with strong action on climate change, water temperatures will continue to rise and stay elevated for decades to come. This means that in addition to a global commitment to greenhouse gas mitigation and continued management of local pressures, we must also investigate innovative approaches to protect and rebuild coral reefs on a large scale.

In 2018 the Australian Government funded a scientific consortium² to assess the feasibility of large-scale interventions for restoration and adaptation of the Reef and to develop the roadmap for making these interventions a reality. The resulting program of work is likely to take a decade to deliver and provide a model that could be used for coral reefs around the globe.

The Reef Restoration and Adaptation Science component of the Partnership will deliver the first five years of this 10-year program with a focus on:

- Research and development into innovative ways to make corals stronger and more thermally tolerant, assist the reproduction and survival of corals, and shade and cool reefs
- Developing robust decision-making systems to inform what interventions are deployed where and when
- Adapting strategies from other domains, such as engineering, to support the transition from small-scale pilot projects to full-scale implementation.

Acquiring social acceptability for large-scale Reef restoration and adaptation interventions will be key to the success of this work.

An investment of \$100 million under the Partnership will be amplified with co-investment from fundraising through the Partnership's Collaborative Investment Strategy.

² Consortium members include AIMS, CSIRO, JCU, UQ, QUT, GBRMPA and GBRF

4. Community and Traditional Owner Reef Protection

4.1 Community Reef Protection

A large network of people and organisations are already engaged in Reef protection actions. The Partnership will accelerate, scale and strengthen these individual and collective efforts, celebrating these community heroes and sharing stories of success that inspire hope and grow the network of people actively involved in Reef protection.

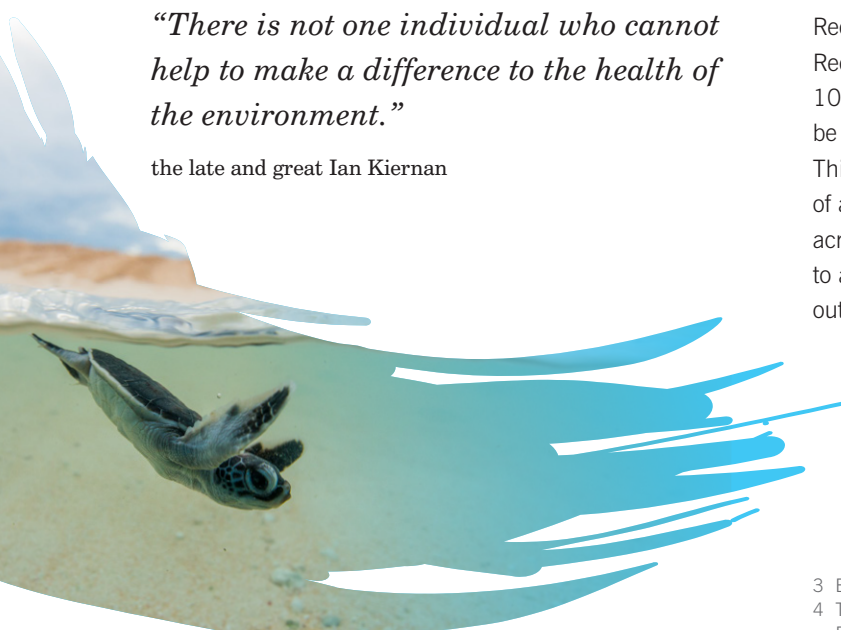
This will be achieved by empowering people to create solutions through:

- Enhancing community capacity to deliver on-ground Reef protection actions such as reducing marine debris, protecting key species or improving water quality
- Strengthening community monitoring and pathways for community data to inform Reef management – for example through regional report cards
- Creating resources for communities outside Reef country through education programs, digital technology and storytelling
- Establishing a national sustainability challenge for schools, business and the community
- Creating a national day of action for the Reef – highlighting the role of individual and community action
- Identifying pathways for youth engagement to encourage rising leaders to shape a better future for the Reef

An investment of \$10 million has been committed to Community Reef Protection.

“There is not one individual who cannot help to make a difference to the health of the environment.”

the late and great Ian Kiernan



4.2 Traditional Owner Reef Protection

At least 70 Traditional Owner groups have rich, ongoing connections, rights, interests and aspirations in sea country across the length of the Great Barrier Reef. Over half of the Reef catchment and 13.5% of the marine World Heritage Area is subject to formal Indigenous ownership, interest or co-management arrangements.

Traditional Owners are making a significant and meaningful contribution to Reef protection now – for example through the work of more than 200 Indigenous rangers across the Reef catchment – yet there is a huge opportunity and very strong desire to do much more. There has been a consistent call for genuine partnership in the overarching governance of the Reef and far deeper ownership of, and participation in, its active day to day management through the co-design, co-delivery and co-management of Reef protection programs.

These aspirations will be supported through the Partnership’s focus on:

- Active Traditional Owner-led Reef protection measures – boosting Traditional Owner capacity to deliver Reef protection actions across all areas of the Partnership
- Supporting land and sea country action and investment planning with a strong focus on business development, economic empowerment, strategic partnerships and the Reef 2050 Plan
- Indigenous innovation, leadership and collaboration – for example peer to peer learning, and knowledge exchange events (e.g. Saltwater Youth forum)
- Exploring new delivery models and sustainable funding opportunities such as a Traditional Owner Reef Protection Fund.

Recognising that Traditional Owners are already undertaking Reef protection actions across all areas of the Partnership, 10% of the total value of the Partnership³ (\$42 million) will be allocated to Traditional Owner Reef protection actions.⁴ This will ensure that a large-scale, coordinated, strategic plan of action can be co-developed with Reef Traditional Owners across all five areas, providing an unprecedented opportunity to align the aspirations of Traditional Owners with high impact outcomes for the Reef.

³ Excludes Component 1 of the Grant Agreement.

⁴ This includes \$12 million from the dedicated Community and Traditional Owner Reef protection funding and \$30 million from across all other areas.

5. Integrated Monitoring and Reporting

The Great Barrier Reef is vast, stretching more than 2300km along the Queensland coast and roughly the size of Italy. The Reef’s vastness is vital to its resilience, but it poses a huge logistical and fiscal challenge when it comes to assessing and diagnosing its health.

Significant Reef monitoring efforts are already occurring with more than 100 distinct programs operating in the marine environment alone. In 2014 the Reef Integrated Monitoring and Reporting Program (RIMREP) was established to do a stocktake of existing programs, identify monitoring needs and provide recommendations for a monitoring and reporting system – due in June 2019.

RIMREP provides a sound foundation to build from, but a step-change in the depth, breadth, rigour, coordination and availability of data that Reef managers depend upon every day will still be needed.

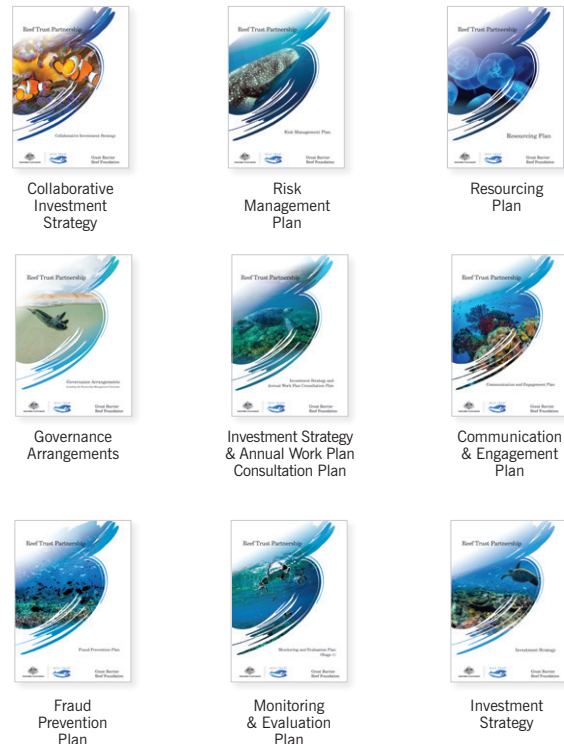
This will be achieved by focusing on:

- Supporting critical monitoring activities identified through RIMREP
- Catalysing technological innovation such as cost-effective sensor networks and improved machine-learning through the establishment of a Technology Transformation Fund
- Supporting the development and implementation of a Reef-wide decision-making and forecasting platform
- Supporting a community of practice to ensure effective integration of Reef data into local and global observing systems.

Where to from here?

The Investment Strategy is a significant milestone in the Partnership. It lays out the Partnership intent, describes priority areas for investment, and builds on a suite of plans developed over the last six months.

The Investment Strategy is one of a series of plans which underpins the Reef Trust Partnership



Over the next six months, from January to June 2019, the Partnership activities will focus on:

- Developing detailed annual workplans in readiness for full implementation of the Partnership’s activities in July 2019
- Implementing best-practice governance including robust decision-making frameworks, consistent with the Partnership’s principles of accountability and transparency
- Developing a Monitoring and Evaluation Plan to assess the Partnership’s contribution to the Reef 2050 Plan and expected outcomes – to be completed in March 2019
- Delivering up to \$25 million of on-ground projects in accordance with the Partnership’s 2018/2019 Activity Gantt Chart.

The Reef Trust Partnership provides an unprecedented opportunity for supporting partnerships, collaborations and collective action, at a scale never previously possible. This collective approach will underpin the Partnership’s success and ensure meaningful and high impact outcomes for the Great Barrier Reef are achieved.