



International Coral Reef Initiative (ICRI)

Member's Report | 38th General Meeting

9th – 13th September 2024 Jeddah, – Kingdom of Saudi Arabia

Reporting Period: 2023 & 2024

A. Member Information:

- Name of ICRI member: Australia
- Name of person(s) completing member's report:

This report was compiled by the Great Barrier Reef Marine Park Authority with input provided by the following Australian Government departments:

- Great Barrier Reef Marine Park Authority (Reef Authority)
- Australian Institute of Marine Science (AIMS)
- Department of Climate Change, Energy, the Environment, and Water (DCCEEW)
- Department of Biodiversity, Conservation and Attractions (DBCA)
- Parks Australia
- Email: International@gbmpa.gov.au
- Are you a designated ICRI Focal Point: Yes No
- Which was the last General Meeting you attended: 37th ICRI General Meeting, Kona Hawaii
- Will you be attending the 38th ICRI General Meeting in Jeddah, Kingdom of Saudi Arabia: Yes No

Australia will be represented at the General Meeting by the **Australian Institute of Marine Science (AIMS)**. The **Reef Authority** (Australia's ICRI Focal Point) is unable to attend.

- Member social media: [Great Barrier Reef Marine Park Authority Facebook](#)
 - Twitter/X: [@gbrmarinepark](#)
 - LinkedIn: [Great Barrier Reef Marine Park Authority](#)

B. Reporting on the implementation of the ICRI Plan of Action 2021-2024: turning the tide for coral reefs. *Your responses will help inform the Secretariat about members' contributions toward the current Plan of Action. You can download the ICRI Plan of Action here: <https://icriforum.org/documents/plan-of-action-2021-2024/>*

What are the main contributions you, as an ICRI member, have made to the ICRI Plan of Action?

Theme 1 - Preparing for the Future: Promoting Resilient Coral Reefs

Answer:

Australia is committed to building the resilience of coral reef ecosystems in the face of climate change. Australia's focus for improving the long-term outlook for coral reefs is founded on three key action areas - contributing to global emissions reductions, direct action to reduce local pressures like poor water quality and supporting adaptation and resilience to a changing climate.

Australia's investments and actions are outlined below.

The **Reef Authority**'s work program for 2023-2024 has had an emphasis on protecting, managing and restoring the Great Barrier Reef (GBR) ecosystem's health and resilience.

- The **Reef Authority** hosted the [Pacific Coral Reef Collective](#) that brought together reef managers and designated partners from 14 Pacific countries (Secretariat of the Pacific Regional Environment Programme Pacific members) to address shared challenges facing coral reefs and explore the innovative solutions being implemented to improve reef resilience. Participating countries included Samoa, Papua New Guinea, American Samoa, Fiji, Cook Islands, Vanuatu, Palau, New Caledonia, Marshall Islands, Tuvalu, Tonga, Kiribati, Nauru and Federated States of Micronesia. [Pacific Coral Reef Collective – Summary Report](#).
- The **Reef Authority** recognises that climate change is the greatest threat to the GBR and coral reefs around the world. The 2024 release of the [Great Barrier Reef Blueprint for Climate Resilience and Adaptation](#) (Blueprint 2030), the [Climate Change Position Statement](#), and the [Sustainability Strategy 2024-2027](#), were major milestones in the **Reef Authority**'s climate adaptation journey; by taking action to address the challenge of climate change impacts on the GBR, leading the way to reduce emissions and setting a position on climate change.
- The [Reef 2050 Long-Term Sustainability Plan](#) ('The Reef 2050 Plan') is the Australia's overarching framework to cooperate on the protection and management of the GBR to 2050. It is based on scientific research, analysis and lessons learnt over four decades of management. The plan will be reviewed following the release of the [2022 Scientific Consensus Statement](#) and the 2024 Great Barrier Reef Outlook Report

to ensure management actions are adapted to address the emerging issues and threats to the GBR.

- The [Reef Joint Field Management Program](#) plans and delivers field operations within the GBR World Heritage Area. The program has five priorities: delivering conservation actions; checking for change; responding to incidents; welcoming people; and upholding compliance. These priorities cover off on multiple facets of building resilience. These activities build resilience through educating visitors on how they can reduce impacts, promoting stewardship, conducting intervention activities to repair impacted sites, monitoring to improve understanding of the GBR, island and species, and maintain impact reducing facilities (e.g. public moorings).

Resilience-based management is being progressively embedded in the [Department of Biodiversity, Conservation and Attractions](#) (DBCA - Government of Western Australia) policies and operational management of marine parks. Examples of resilience or the use of components of RBM included in legislation and practice include:

- The zoning scheme for the Western Australia's marine parks includes Sanctuary Zones to provide '*..... resilience against the failure of the adaptive management approach adopted for the rest of the Park, and enhanced resilience to natural and human induced disturbance.*'
- Key Western Australian legislative mechanisms, *the Biodiversity Conservation Act 2016* and *Conservation and Land Management Act 1984* and associated regulations, guide the management and conservation of Western Australia's marine parks, includes objects relevant to RBM including:
 - To promote the ecologically sustainable use of biodiversity components
 - Principles of ecologically sustainable development
- Adaptive management is embedded in the management of marine parks in Western Australia and the annual reporting of the condition, pressure and management response for marine values (including coral reefs) and implementation of management plans for marine parks.
- As partner in the Resilient Reefs Initiative, **DBCA** was involved in the development of a [Resilience Strategy for the Ningaloo Coast](#), [Resilient Reef Ningaloo](#).
- The [Plan for Our Parks](#) initiative creates 5 million hectares of new marine parks and national parks to secure conservation habitat to enhance ecosystem resilience.
- The [Western Australian Climate Policy](#), and [Climate Adaptation Strategy](#) and associated actions support enhanced climate resilience in marine and terrestrial ecosystems.

Theme 2 - Coral Reef Science and Oceanography: Advancing and Utilizing the Latest Science and Technology

Answer:

Australia is a global leader in coral reef science, carried out by Australian research organisations and universities. Detailed information about individual projects or publications by coral reef scientists cannot be included here, as they are too numerous. The below provides an overview of activities led by Australian Government agencies that focus on advancing and utilising science and technology, as relevant to the protection and management of coral reefs.

- The [Reef Restoration and Adaptation Program \(RRAP\)](#) is a global leader in coral reef restoration and adaptation research. The program is a long-term research and development (R&D) program to develop, test and risk-assess novel interventions to help keep the GBR resilient and sustain critical functions and values. Partners include the Australian Institute of Marine Science, CSIRO, the Great Barrier Reef Foundation, the University of Queensland, QUT, Southern Cross University and James Cook University. While RRAP is initially focused on the GBR, these solutions could also be applied to other reefs in Australia and around the world.
- The [Reef 2050 Integrated Monitoring and Reporting Program \(RIMReP\)](#) is a partnership between multiple government agencies and research institutes. The program was designed to provide a comprehensive and up-to-date ecological, social and cultural understanding of the GBR by reporting across the key themes which make up the Reef 2050 Plan Outcomes Framework. The [Reef Knowledge System](#), an online platform for RIMReP, is currently being re-developed to provide managers, researchers and the public with up-to-date insights about the GBR. It facilitates informed decision-making by collating multiple lines of evidence, applying scientific and traditional knowledge, and aims to ensure transparency in government progress and accountability.
- The Data Management System is a critical infrastructure piece that underpins the successful delivery of RIMReP and related reporting activities, management systems and decision support tools. It is a one-stop-shop to allow data discovery and access to all GBR data for managers and researchers via a single access point in analysis-ready standardised formats. For more information see the [DMS factsheet](#).
- **AIMS** continues to host [the Global Coral Reef Monitoring Network \(GCRMN\)](#). The re-invigoration of the GCRMN as an active network is progressing well, and the main focus is currently on the production of the 2025 Global Report, with the data collection phase formally started this July.
- The [Great Barrier Reef Outlook Report](#), published every five years by, is an evidence-based report prepared by the **Reef Authority** per legislation; it evaluates the GBR's health, main pressures, and outlook for the future. The 2024 edition of the [Outlook Report](#) is available via the **Reef Authority** website. Findings from the Report will inform the strategic direction of future corporate plans for the **Reef Authority** and

contribute to informing the 2025 review of the Reef 2050 Plan and future State Party Reports to the World Heritage Centre.

- Sea Country Values Mapping (SCVM) provides a platform for the **Reef Authority** to support Traditional Owners to identify, assess, map and store knowledge on their cultural values. The benefits of this mapping extend past identification of values and can lead to Sea Country management plans, new partnerships, assessment guidelines and capacity building for Traditional Owner management of their Sea Country. SCVM is guided by and supports innovative and contemporary co-design approaches with Traditional Owners that acknowledge and respect the inherent responsibility, spiritual connection and cultural authority (lore) of Traditional Owners to care for Sea Country.
- The **Reef Authority** continues to deliver the world-leading Great Barrier Reef Marine Monitoring Program (MMP) in partnership with the Australian Institute of Marine Science, James Cook University, and the Cape York Water Partnership. The Program, which monitors inshore water quality, coral and seagrass meadow condition and trends, informs managers and the wider community about the condition of inshore corals and seagrass, and the effects of poor water quality from land-based runoff on these ecosystems. This unique dataset improves our scientific understanding of how the GBR is affected by pressures and informs our management decisions. All collected data is analysed and reported annually. The latest being the [Marine Monitoring Program Annual Inshore Water Quality Report 2022–23](#).
- **AIMS** partnered with coral reef monitoring organisations in Fiji and Palau, as well as regional and global coral reef monitoring initiatives and technology developers, to design [ReefCloud](#). ReefCloud is a user-friendly platform that uses machine learning and advanced analysis to rapidly extract and share data from images of coral reefs anywhere in the world. ReefCloud standardises collected data, analysing coral reef composition with 80-90 % accuracy, 700 times faster than traditional manual assessment. This saves weeks and months of labour, freeing precious reef management resources.
- An integrated coral reef monitoring framework has been developed, detailing standardised methods for image collection and data analysis using ReefCloud. Standardised methods facilitate easier data integration, enabling a comprehensive understanding of coral reef conditions at local, regional, and global scales – including for GCRMN reporting.
- **DBCA** monitors coral communities in all Western Australian marine parks where they are listed as ecological values on 1-3 year time scales. This includes monitoring water temperature using a combination of satellite and in-water measurements across all marine reserves where corals are listed as ecological values on a continuous basis.
- **DBCA** contributes to ongoing local, national and global research efforts through ongoing activities, including focussed programs on coral genetics, heat stress tolerance, resilience, human use impacts, anoxic event impacts and advances in new sampling methodologies, where possible.

*Theme 3 - Local Threat Reduction: Integrating Response Planning Frameworks**Answer:*

- As part of the Reef Authority's Reef Health program and coral bleaching response, marine managers and scientists from the **Reef Authority**, **AIMS**, and [James Cook University](#) developed a [coral bleaching framework](#) to describe and categorise coral bleaching on the GBR. This framework describes bleaching events in a clear and consistent way and enables comparisons to be made between years, over time, and across the GBR. At the end of the summer, the bleaching impact framework will be used to assess how the GBR fared over the summer and enable comparisons with previous seasons. The [coral bleaching response was activated in Summer 2024](#), with aerial surveys conducted over 1080 reefs and more than 8,300 in-water surveys conducted of 273 reefs from February to April 2024 to assess bleaching extent and prevalence. Innovations in data management in 2023-24 streamlined workflows by centralising data from numerous providers to allow analyses in near-real time, greatly improving visibility on the condition of the GBR.
- The Crown-of-thorns Starfish (COTS) Control Program is led by the **Reef Authority** in collaboration with Program partners, contractors and research agencies. The objective of the Program is to protect coral across a network of high-value reefs via targeted surveillance and manual culling of COTS outbreaks. [The 2023-24 Annual Report Dashboard](#) provides an overview of COTS Control Program operations and delivery outcomes, COTS outbreak and coral cover status across all reefs actioned by the Program between 01/07/2023 and 30/06/2024.
- In response to heightened threats or local reports of coral bleaching, **DBCA** conducts surveys such as aerial flights, in-water rapid bleaching surveys and/or photo-transects. Reports and estimates of coral bleaching are communicated to the Western Australian Coral Bleaching Taskforce and are collated in relevant coral bleaching databases.
 - **DBCA** records impacts of thermal stress, large storm events and coral predators through its periodic coral monitoring program across all relevant marine reserves.
 - **DBCA** is conducting research into the impacts of human visitation on coral communities at high-use sites to direct future management strategies at Ningaloo Marine Park.

Theme 4 - Diversity and Inclusion: Expanding the Coral Reef Community

Answer:

The **Reef Authority** aims to move towards a future where the enduring culture and connection of GBR Traditional Owners with their Sea Country is widely recognised, Indigenous Heritage is protected, and we manage the Reef together. There are approximately 70 Traditional Owner clan groups whose Land and Sea Country includes the GBR. Establishing effective and meaningful partnerships with Traditional Owners is essential to protect Indigenous Heritage Values, conserve biodiversity and enhance the resilience of the Reef.

- [Traditional Use of Marine Resources Agreements](#) (TUMRAs) are community-based agreements, developed and led by saltwater Traditional Owners/Clan groups to manage their Sea Country estate and are made in partnership (accredited) with the **Reef Authority** and the Queensland government. TUMRAs provide a robust legislative framework and are built on a foundation of Traditional Lore and Customs.
- The 10 accredited TUMRAs (approximately 42 percent of the GBR coastline) and their respective seven-year implementation contracts (1 July 2022 to 30 June 2029) is a significant milestone in our journey towards improving the way we work with Traditional Owners. It signals a strong commitment to develop stronger, mutually beneficial relationships with Traditional Owners, and gives us the go-ahead to enhance the strategic foundations to improve Traditional Owner involvement in Reef management, in the Great Barrier Reef World Heritage Area for future generations.
- The ‘Supporting Indigenous Land and Sea Rangers Program’ is a priority project of the Reef Joint Field Management Program. In 2023-24, three 6-18 month work placements were coordinated for Indigenous Land and Sea Rangers to gain experience, skills and qualifications working as a Marine Park ranger. There have been seven work placements coordinated since 2021. Sixteen Indigenous Rangers participated in dive training. All of the trained divers are now on the Program’s dive register and two of these participated in moorings maintenance and reef health survey field trips. The Program also supported 13 Indigenous staff to undertake the Indigenous Rangers Leadership Program where participants master skills for self-improvement, managing others, time and relationships management and more.
- The **Reef Authority** continues to Partner with Reef Traditional Owner and to deliver on the [Aboriginal and Torres Strait Islander Heritage Strategy](#) (Heritage Strategy), [Co-management Principles Policy](#), and the [Reef 2050 Traditional Owner Implementation Plan](#).

The **Reef Authority** also recognises the contributions industry and community to the management of the GBR.

- The [Eye On the Reef](#) (EoTR) monitoring and assessment program enables anyone who visits the GBR to contribute to its long-term protection by collecting valuable information about reef health, marine animals and incidents. This citizen science information is used to understand the bigger picture and inform how we manage the GBR. EoTR continues to deliver engagement, training, and reporting through the

tourism sector, universities, COTS control program, Master Reef Guide program, and Field Management Operations. The program's digital platform was updated over 2023-24 to improve the software. The EoTR platform continues to evolve, maintaining existing well-established reef health reporting functions and looking for new and improved capabilities possible with the latest software.

- Delivery of services by tourism operators contracted under the \$15 million two-year [Tourism Reef Protection Initiative](#) was completed on 30 May 2024. For the past 18 months these operators have delivered Reef protection and conservation services throughout the Marine Park at high-value tourism sites. This included a targeted Reef Health response by the industry during a period of increased disturbance events in all areas of the Marine Park. Tourism operators have been supported by on-site visitation to upskill and train staff, as well as conduct service delivery audits. This has included 130 tourism staff being trained and certified in the EoTR monitoring systems. **Reef Authority** staff also joined operators in conducting post-TC Jasper and flooding Reef health assessments at the most heavily impacted sites in the central and Northern regions.
- A [Site Stewardship Framework](#) has been developed to assist marine tourism operators to better understand their tourism sites and help them improve their environmental stewardship. As part of the Tourism Reef Protection Initiative, 26 tourism operators have delivered a detailed site stewardship plan, including a thorough ecological evaluation of the site and integration of EoTR survey information. A further \$5 million has now been announced by the Minister for the continued stewardship of key sites.
- The [Master Reef Guide program](#) is an internationally recognised guiding program that builds the capacity, knowledge and presentation skills of the GBR tourism industry. The Master Reef Guides are accredited reef ambassadors that impart up-to-date scientific and management information about the GBR and explain what people can do to make a difference. The program is delivered by the **Reef Authority**, Association of Marine Park Tourism Operators and Tourism and Events Queensland. Highlights from 2023–24 include inducting the seventh cohort of Master Reef Guides into the field school and hosting a 'Site Stewardship Mega Masterclass' and a Tourism Leadership Forum for High Standard Tourism Operators.
- Through the [Reef Guardian Council \(RGC\) Program](#), 19 local governments are delivering key management actions that address the threats facing the GBR. The RGC Program encourages greater community participation and involvement. In May 2024, RGCs received a significant boost in funding to support a range of projects, including reducing sediment run-off; improving riparian, catchment and wetlands habitats; removing marine debris; controlling feral species; and reducing carbon emissions.
- The [Reef Guardian School \(RGS\) Program](#) started in 2003 to enable the next generation of young leaders to become stewards of the GBR, by understanding the threats to its sustainable future and their role protecting it. In 2023, the program celebrated its 20th anniversary with a national and international expansion. The new RGS Portal was launched, allowing schools to join, share achievements, and access resources. By June 2024, 360 schools were registered, with 71 recording 1029 Care,

Learn, Act, Share reef Steward actions in 2023. Other Reef Guardian School program achievements included participation in the 2023 Eco Challenges, STEM teachers resources aligned to the Australian Curriculum, close to 100 [Virtual Learning Experiences](#), [Reef webinars](#) and [more](#).

- In May and June 2024, the **Reef Authority** and JCU delivered seminars to 70 First Nations students from 20 schools as part of the Aboriginal and Torres Strait Islander Marine Science program. The Education team delivered a series of workshops to 13 Edu Tourism groups, with 457 American students and faculty, with topics covering Marine Park management, marine life identification and the "Be a Marine Biologist for a Day" program. This resulted in the organisation, delivery and facilitation of workshops, field trip data collation and input of data into the EoTR Rapid Monitoring dashboard. Over 20 Masters students from Miami University joined the Earth Expeditions program. The education team delivered rigorous reef education workshops, training and facilitation of RAPID data collection for EotR.

AIMS recognises the importance of local communities in marine conservation.

- The [AIMS Indigenous Partnerships Policy](#) recognises the knowledge, perspectives, customary practices, capacity, and capability of Australia's original marine scientists – the Traditional Owners of land and sea Country. Originally focussed on Australia's marine estate, the Policy was updated in July 2024 with one of the updates to broaden the scope so the policy may also be applied to **AIMS** international projects and the involvement of Indigenous Peoples and Local Communities outside Australia, on a case-by-case basis.
- As part of the ReefCloud project, **AIMS** collaborated with communities in Samoa, Papua New Guinea and Australia to develop recommendations of stakeholder engagement to better support local coral reef conservation and management through a knowledge exchange lens. Eleven recommendations emerged from three knowledge exchange workshops involving over 140 local and Indigenous community members. These workshops facilitated sharing Traditional Knowledge and cross-cultural insights on coral reef management practices across different nations.
- These recommendations emphasised the need to improve the delivery of scientific knowledge to local communities in a format that integrates Traditional Knowledge and customary practices. In response, the project developed a tailored reporting tool, the Community Dashboard, designed to integrate monitoring data and present information to local decision-makers. This new tool enhances the utilisation of analysed coral reef data for locally managed marine areas. Specifically designed to assist organisations working closely with communities, the Community Dashboard presents analysed coral reef monitoring data in an accessible, easy-to-understand format. This facilitates knowledge-sharing and empowers informed management actions for locally managed marine areas while respecting and aligning with cultural practices.

DBCA jointly manages in partnership with Traditional Owners a number of marine parks where corals are listed as ecological values (i.e. Ningaloo coast, Bardi Jawi Gaara, Mayala, Lalang Gaddam, North Kimberley – see interactive maps of jointly managed parks [here](#)).

- Long-term strategies are in place to expand Traditional Owner joint management across other reserves as they are periodically reviewed. Joint management is established formally through a legally binding agreement attached to the jointly prepared management plan. A Joint Management Body, with a Traditional Owner Chairperson and members, meets regularly to support joint management and decision-making; and capacity is facilitated by **DBCA** joint management staff and indigenous rangers. [Joint management | Department of Biodiversity, Conservation and Attractions \(dbca.wa.gov.au\)](http://www.dbca.wa.gov.au)
- **DBCA** and joint management partners have undergone cultural mapping exercises across a number of marine parks to better integrate existing traditional and western knowledge, for the purpose of informing ongoing policy, marine park planning, adaptive management and research/monitoring programs.

Parks Australia have seen a \$500,000 project implemented to provide information on the status of the natural values in the shallow waters of Australia's Indian Ocean Territories (IOT) (Christmas Island and Cocos (Keeling) Islands) the ecological processes that maintain them and the key threats, with a large focus on coral reefs.

- These activities are being conducted in close collaboration with the local communities to ensure two-way knowledge transfer. This project is also providing training and educational resources to help build on-island capacity and support employment opportunities and ecologically sustainable economic growth.
- A \$50,000 project will conduct a comprehensive survey of the coral fauna of the Indian Ocean Territories to provide fundamental baseline data on the region's marine ecosystems, inform ongoing ecosystem monitoring, and to examine the distinctiveness of the Indian Ocean Territories' fauna compared to reefs elsewhere in Australia and the broader Indo-Pacific region.

- (ICRI) What are your upcoming priorities for coral reefs?

Answer:

Australia is investing in projects to support coral reefs adapt to a changing environment, using the latest science and research.

- The **Reef Authority** will continue to innovate and adapt management of the GBR to protect reef resilience as the climate changes. The five strategic goals in the [Great Barrier Reef Blueprint for Climate Resilience](#) are:
 1. Protect the Reef's resilience
 2. Enhance the **Reef Authority's** capability
 3. Co-manage Sea Country with Traditional Owners
 4. Empower others to protect and manage
 5. Do [Reef Authority's] part to reduce emission
- **Parks Australia** is continuing to monitor and research ecological changes and the drivers of these changes (e.g. climate change) and investigate feasible threat mitigation

measures. This may include reef restoration techniques, in-case of larger coral reef die offs (e.g. from climate change)).

- **AIMS** will host the GCRMN and the 2025 Global Report and continue working with coral reef managers and partners in the Pacific region to complete further development and training in [ReefCloud](#).
- **DBCA** intends to better understand the adaptability and resilience of coral species and communities to increasing global pressures (particularly increasing ocean temperatures) to inform ongoing management strategies around recovery and wider ecological/social adaptation, and to better understand the ecological, social, economic risks and opportunities of current and future coral restoration practices in a Western Australian context .

C. Reporting on the Restoration of Coral Reefs (*Target 2 GBF/Action Point 3 Coral Reef Breakthrough*)

- (ICRI) Are you able to estimate the total area (km²) of coral reef under active restoration and the total area you consider to be ‘restored’, as a result of your organisation/countries in 2023?
 - Total area under active restoration in 2023: [redacted] km²
 - Total area considered to be restored in 2023: [redacted] km²
- (ICRI) If available, please provide further information on the total area considered to be restored, and under active restoration for the total period of the restoration programme, including the timeframe:

Answer:

Australia has a priority area in place under its Strategy for Nature 2019-2030 for the effective restoration of degraded terrestrial, inland water, marine and coastal ecosystems, as a part of its contribution to the goals of the Kunming-Montreal Global Biodiversity Framework.

Australia does not currently have spatial estimates of coral reef area under restoration or restored. There is no restoration occurring at coral reefs in the Indian Ocean Territories or Western Australia. In WA, there are research projects associated with understanding coral restoration techniques, species, and effectiveness as well as interest from government, industry and research institutions in informing the cost, risk, and opportunities for coral restoration as a management tool in a Western Australia context.

Low impact Interventions are occurring at over 30 locations across the GBR Marine Park. These are being led by management agencies or under tourism operators and researcher permissions at sites that have demonstrated need for intervention (e.g. a physical impact from cyclones, ship grounding). Types of low impact interventions include coral larvae

release, coral nurseries, out planting of corals, relocating coral colonies detached by cyclones and stabilisation of coral rubble.

The **Reef Authority** worked with Worley Consulting, BMT Australia and Boskalis to remediate coral reef habitat at Douglas Shoal following a ship grounding in 2010. The 14-year process is almost complete with contaminated materials now removed from the GBR. For more information see [Douglas Shoal environmental remediation project](#).

The Reef Joint Field Management Program, in partnership with industry and Great Barrier Reef Traditional Owners, have conducted multiple trials of intervention methods. Most recently the [Yarul Dhingiga: Keppel Bay reef rehabilitation project](#). This work built on the work of [Project Reefresh: Bait Reef rehabilitation](#) and the [Green Island reef rehabilitation project](#).

There are multiple research programs on the GBR investigating new and innovative intervention methods at small scale. Many form part of the [Reef Restoration and Adaptation Program \(gbrrestoration.org\)](#)

- (ICRI) For the purpose of the above, please provide definitions for how your programme/organisation/country considers coral reefs to be:
 - A) Under active restoration
 - B) Restored

Answer:

The [Policy on Great Barrier Reef Interventions](#) uses the below definitions for activities that meet the definition of restoration for Target 2 of the GBF. The **Reef Authority** tends to use Reef Interventions when talking about actions to support reef recovery and reef resilience.

Reef Interventions: (or Restoration and/or adaptation intervention(s)) An action, or actions, actively undertaken in the Marine Parks to support ecosystem recovery, build resilience and achieve conservation benefits for the GBR.

Rehabilitation: The process of reinstating a level of ecosystem functionality on degraded sites where ecological restoration is not the aspiration, as a means of enabling ongoing provision of ecosystem goods and services.

Restoration: The process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed. (Note: Single species restoration can be considered complementary to, and an important component of, ecological restoration.)

Restoration intervention(s): An action, or actions, actively undertaken in the Marine Parks to support ecosystem recovery, build resilience and achieve conservation benefits for the GBR through enabling restoration.

Does your country have any restoration policies or regulations?

Many locations have outdated and insufficient regulations for coral reef restoration, resulting in inadequate oversight of restoration efforts. In addition, the absence, limitations, or differences among regulations between countries prevents the development and implementation of effective regional coral reef conservation strategies.

- (ICRI) Please describe the restoration policies or regulations (if any) that are in place in your country.

Answer:

The **Reef Authority** continues to review its policies, as required, including:

- the Reef Interventions Policy and Guidelines to ensure they are incorporating lessons from proof-of-concept field trials to inform activities planned under the Reef Restoration and Adaptation Program.
- As part of the development of the Southern Plan of Management, which covers 43 per cent of the GBR Marine Park, the **Reef Authority** is looking to use existing knowledge of resilience reefs and an understanding of research field trials to design flexible management arrangements for the Planning area.

In the Indian Ocean Territories marine parks (**Parks Australia**), statutory management plans are being finalised. These plans outline broad directions and actions related to ecosystem protection and changes and will also regulate how activities will be managed in the marine parks (including any restoration activities requiring interventions e.g. artificial reefs).

In Western Australia (**DBCA**), approval requirements exist under the Conservation and Land Management Act 1984 and Biodiversity Conservation Act 2016 for stakeholders seeking to trial methods of restoration in marine parks and Western Australian waters. Approvals may also be required for significant restoration under other State and Commonwealth legislation, for example the WA Environmental Protection Act and Commonwealth Government Environment Protection and Biodiversity Conservation (EPBC) Act.

D. The Global Coral Reef Monitoring Network (GCRMN)

The production of future GCRMN reports, both at the regional and global level, relies on the ongoing support of data contributors who are willing to share their coral reef monitoring data for this purpose. As such, from 2024 to 2026, the GCRMN will undertake the rigorous process of developing the **Status of Coral Reefs of the World: 2025** global report, including an extensive data collation process.

Do you have data to contribute to the upcoming GCRMN global report?

- Please provide the contact information for the data providers to allow for the GCRMN data collation team to request data and discuss the process of data contribution.

Answer:

The collation of Australia's data contributions to GCRMN will be facilitated by **AIMS**.

Contact Name: Dr Britta Schaffelke
Organisation: Australian Institute of Marine Science
Email Address: b.schaffelke@aims.gov.au

Contact Name: Amanda Brigdale
Organisation: Australian Institute of Marine Science
Email Address: a.brigdale@aims.gov.au or international@aims.gov.au

E. Capacity Building & Communications

Have you found the ICRI #ForCoral Webinar Series useful?

Through 2024, ICRI has hosted multiple webinars that aim to share knowledge and foster collaboration across critical topics concerning the conservation, protection, and restoration of coral reefs. These webinars form the #ForCoral webinar series, and topics include the 4th Global Bleaching Event, impacts of land-based sources of pollution and National Biodiversity Strategies and Action Plans.

The full list of webinars and recordings can be found here: <https://icriforum.org/forcoral-webinar-series/>

- (ICRI) Did you attend any of the series' webinars, and if so which topics have you found the most useful and engaging? If you did not attend the webinars, please explain why, and how what we could have done better.

Answer:

Australia attended the following webinars:

- The Impacts of land-based Sources of Pollution on Coral Reefs
- Integrating coral reefs into NBSAPs
- The Status of the Fourth Global Bleaching Event and the role of the global coral reef community

The **Reef Authority** presented at the following webinars:

- The Impacts of land-based Sources of Pollution on Coral Reefs (presented on the Reef Authority’s Marine Monitoring Program, ‘Impacts of Land-Based Sources of Pollution on Coral Reefs’)

AIMS presented at the following webinars:

- The Status of the Fourth Global Bleaching Event and the role of the global coral reef community (presented an overview of coral bleaching observation from Australia’s coral reefs)

Australia found the webinars engaging and useful for learning and sharing resources with ICRI members, and the global coral reef community, as well as for ICRI to demonstrate leadership during the 4GBE.

Attendance at the webinars can be difficult in Australia due to the challenges with time zones – they are often late at night here. The ability to watch recorded webinars has meant that we can catch up on other webinars we were unable to attend.

- (ICRI) Do you have any suggestions or request for topics that you wish for ICRI to host as part of this series? If you have a specific topic in mind, and would like to host a webinar, please indicate below.

Answer:

Coral reef restoration and threat mitigation measures to enhance resilience in the face of a changing/warming climate (**Parks Australia**)

- Traditional Owner participation and engagement in coral reef management and building coral reef resilience would be beneficial topics to assist in learning from other MP’s, countries and global managers (**DBCA**).
- The **Reef Authority** would like to hold a webinar on the release of the 2024 Outlook Report later this year, the Resilience-based Management Case Studies, and on the [Great Barrier Reef Blueprint for Climate Resilience and Adaptation](#).

Have you found the ICRI communications useful?

- (ICRI) Do you find the ICRI Monthly Round of News Useful? If yes, what do you like about it and how would you suggest improving ICRI’s communications?

Answer:

Yes, the Round of News is a helpful resource for information sharing and awareness about relevant events. It may help to share the scheduling/be advised of deadlines for content so that members can plan when to provide input.

The **Reef Authority** plans to create a mailing list to better distribute the ICRI Monthly Round of News to our partners.

F. Kunming-Montreal Global Biodiversity Framework

ICRI has continually supported the Convention on Biological Diversity and the Post-2020 process, developing a recommendation for coral reef indicators to be included in the Global Biodiversity Framework and supporting Parties during the negotiation process. Following the Framework's adoption in 2022, ICRI's support now aims to support parties in implementing the framework, especially through National Biodiversity Strategies and Action Plans (NBSAPS) and the Marine and Coastal Work Programme.

In 2024, ICRI released [A Guide for Integrating Coral Reefs and Associated Ecosystems into National Biodiversity Strategies and Action Plans](#) to support coral reef countries to integrate coral reefs and associated ecosystems into their NBSAPs.

- (ICRI) Did you use read, use, and/or apply the Guide on integrating coral reefs and associated ecosystems into National Biodiversity Strategies and Action Plans (NBSAPs) useful? *Where possible, indicate specific elements that were useful or alternatively provide information if you did not find the guide useful.*

Answer:

The **Reef Authority** read and shared the Guide with the relevant government areas, however due to the timing of the Guide's release, the Australian Government did not consider the Guide in the development of Australia's National Biodiversity Strategy and Action Plan.

- (ICRI) Did you revise your current National Biodiversity Strategies and Action Plans (NBSAP) to include coral reefs? *N.B. if you are not a country representative, are you working with national focal points to help update their NBSAPs? Please provide further details.*

Answer:

Australia's updated National Biodiversity Strategy and Action Plan addresses biodiversity in ocean and marine environments at a high level but does not address specific environment types such as coral reefs. Australia's priority targets which address coral reefs include the protection and conservation of 30% of Australia's marine environment, and the effective restoration of priority degraded areas including coastal and marine environments. Other areas which will indirectly benefit coral reefs include the targets which address climate change, invasive species and reducing pollution.

- (ICRI) How are you planning to implement the Kunming-Montreal Global Biodiversity Framework? Please list the target(s) and decisions that your work attributes to.

Answer:

In June 2024 Australia's Environment Ministers agreed to national targets to support the Kunming-Montreal Global Biodiversity Framework. Australia's NBSAP, the Strategy for Nature (Strategy), will include the agreed priority targets which are:

- Protect and conserve 30% of Australia's landmass and 30% of Australia's marine areas by 2030 (30 by 30)
- Priority degraded areas are under effective restoration by 2030
- No new extinctions
- Minimise the impact of climate change on biodiversity
- Eradicate or control invasive species in priority landscapes and further minimise their introduction by 2030; and
- Increase Australia's circularity rate and reduce pollution and its impacts on biodiversity by 2030.

Following the adoption of the updated Strategy, Australia will undertake work on the implementation of the agreed targets, including consultation on additional actions required.

G. Upcoming events

Please tick the most any events that you will be, or are planning to attend:

- September 10th – 24th: 79th Session of the UN General Assembly (UNGA 79)
- September 23rd – 26th: GEF International Waters Conference
- October 13th – 18th: 7th International Marine Conservation Congress (IMCC7)
- October 21st – November 1st: CBD COP16
- November 4th – 8th: 77th Annual meeting of the Gulf and Caribbean Fisheries Institute (GCFI77)
- December 10th – 12th: The International Mangrove Conservation and Restoration Conference
- December 9th – 13th: Reef Futures
- June 9th – 13th 2025: United Nations Ocean Conference
- October 9th – 15th 2025: IUCN World Conservation Congress

Other

Please list any upcoming regional / international events relevant to ICRI that your organisation plans to attend:

Answer:

Government Agencies that play a role in managing Australia’s coral reefs have identified the below events for attendance over the next year.

- September 5th 2024 – High Level Panel for a Sustainable Ocean Economy (Ocean Panel) virtual
- September 16th – 20th 2024 – International Union for Conservation of Nature’s Regional Conservation Forum (Suva, Fiji)
- September 24th – 25th 2024 - 2024 UN General Assembly Leaders Week and Annual High Level Panel for a Sustainable Ocean Economy (Ocean Panel) Leaders' and Sherpa meeting
- October 1st – 4th 2024 – International Partnership for Blue Carbon Annual Dialogue (Cairns, Australia)
- October 8th – 10th 2024 – Global Nature Positive Summit (Sydney, Australia)
- 11-13th December 2024 High Level Panel for a Sustainable Ocean Economy Sherpa Meeting (Windhoek, Namibia)
- March 12th – 13th 2025 – 12th annual World Ocean Summit and Expo (Tokyo, Japan)
- December 8th – 12th 2025 – Seventh Session of the United Nations Environment Program (Nairobi, Kenya)

H. Publications. Please list relevant publications / reports you have released recently (+ add a link if possible)

Please note that this is just a short list provided as an overview of recent significant work

Publication	URL
Waterhouse J et al. (Eds) 2022 Scientific Consensus Statement on land-based impacts on Great Barrier Reef water quality and ecosystem condition. Commonwealth of Australia and Queensland Government.	https://reefwqconsensus.com.au/
Long-Term Monitoring Program Annual Summary Report of Coral Reef Condition 2023/24	https://www.aims.gov.au/monitoring-great-barrier-reef/gbr-condition-summary-2023-24 <i>Also see: High coral cover amid intense heatwaves and bleaching? Here’s how both can be true on the Great Barrier Reef (theconversation.com) – 7 August 2024</i>

2022-23 Marine Monitoring Program Annual Reports	GBRMPA ELibrary: Browsing the ELibrary
Emslie MJ, Logan M, Bray P, Ceccarelli DM, Cheal AJ, Hughes TP, Johns KA, Jonker MJ, Kennedy EV, Kerry JT, Mellin C, Miller IR, Osborne K, Puotinen M, Sinclair-Taylor T, Sweatman H (2024) Increasing disturbance frequency undermines coral reef recovery. <i>Ecol Monogr</i> n/a: e1619	https://doi.org/10.1002/ecm.1619
Fabricius KE, Cooley SR, Golbuu Y, Riginos C, Gonzalez-Rivero M, Heron SF, Mead D, Cinner J, Schaffelke B (2024) Research priorities to support coral reefs during rapid climate change. <i>PLOS Climate</i> 3: e0000435	https://doi.org/10.1371/journal.pclm.0000435
Huang Z, Feng M, Dalton SJ, Carroll AG (2024) Marine heatwaves in the Great Barrier Reef and Coral Sea: their mechanisms and impacts on shallow and mesophotic coral ecosystems. <i>Science of The Total Environment</i> 908: 168063 doi	https://doi.org/10.1016/j.scitotenv.2023.168063
Lyons MB, Murray NJ, Kennedy EV, Kovacs EM, Castro-Sanguino C, Phinn SR, Acevedo RB, Alvarez AO, Say C, Tudman P, Markey K, Roe M, Canto RF, Fox HE, Bambic B, Lieb Z, Asner GP, Martin PM, Knapp DE, Li J, Skone M, Goldenberg E, Larsen K, Roelfsema CM (2024) New global area estimates for coral reefs from high-resolution mapping. <i>Cell Reports Sustainability</i> 1	https://doi.org/10.1016/j.crsus.2024.100015
McWhorter JK, Halloran PR, Roff G, Mumby PJ (2024) Climate change impacts on mesophotic regions of the Great Barrier Reef. <i>Proceedings of the National Academy of Sciences</i> 121: e2303336121	https://www.pnas.org/doi/abs/10.1073/pnas.2303336121
Mellin C, Brown S, Cantin N, Klein-Salas E, Mouillot D, Heron SF, Fordham DA (2024) Cumulative risk of future bleaching for the world's coral reefs. <i>Science Advances</i> 10: eadn9660	https://www.science.org/doi/abs/10.1126/sciadv.adn9660
Pascoe S, Anthony K, Scheufele G, Pears RJ (2024) Identifying coral reef restoration objectives: A framework. <i>Ocean & Coastal Management</i> 251: 107081	https://doi.org/10.1016/j.ocecoaman.2024.107081
Matthews SA, Williamson DH, Beeden R, Emslie MJ, Abom RTM, Beard D, Bonin M, Bray P, Campili AR, Ceccarelli DM, Fernandes L,	https://doi.org/10.1371/journal.pone.0298073

<p>Fletcher CS, Godoy D, Hemingson CR, Jonker MJ, Lang BJ, Morris S, Mosquera E, Phillips GL, Sinclair-Taylor TH, Taylor S, Tracey D, Wilmes JC, Quincey R (2024) Protecting Great Barrier Reef resilience through effective management of crown-of-thorns starfish outbreaks. PLOS ONE 19: e0298073</p>	
<p>Richards ZT et al. (2024) Deoxygenation following coral spawning and low-level thermal stress trigger mass coral mortality at Coral Bay, Ningaloo Reef. Coral Reefs 43: 443-453</p>	<p>https://link.springer.com/article/10.1007/s00338-024-02476-x</p>
<p>Cornwall CE et al. (2023) Crustose coralline algae can contribute more than corals to coral reef carbonate production. Communications Earth and Environment 4: 105</p>	<p>https://www.nature.com/articles/s43247-023-00766-w</p>
<p>Cannon SE et al. (2023) Macroalgae exhibit diverse responses to human disturbances on coral reefs. Global Change Biology 29: 3318-3330</p>	<p>https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/gcb.16694</p>
<p>Baird AH et al. (2023) High coral mortality following coral spawning in Coral Bay, Western Australia. Galaxea, Journal of Coral Reef Studies 25: 35-36.</p>	<p>https://www.jstage.jst.go.jp/article/galaxea/25/2/25_G26-5/_pdf</p>
<p>Thomas L et al. (2024) Resilience to periodic disturbances and the long-term genetic stability in Acropora coral. Commun Biol 7: 410.</p>	<p>https://doi.org/10.1038/s42003-024-06100-0</p>
<p>Travaglione N, Evans RD, Moustaka MR, Cuttler M, Thomson D, Tweedley J, Wilson S (2023) Scleractinian corals rely on heterotrophy in highly turbid environments. Coral Reefs 42: 997–1010.</p>	<p>https://doi.org/10.1007/s00338-023-02407-2</p>
<p>Zwiefler. A, Evans RD, Browne N, Thomas L (2024) <i>Turbinaria reniformis</i> symbiont community varies along a latitudinal and environmental gradient in Western Australia. Coral Reefs 43: 1161–1171.</p>	<p>https://doi.org/10.1007/s00338-024-02528-2</p>

I. ICRI Member Feedback. What do you find most valuable about being a member of ICRI as well as completing the ICRI member reports? If you have any ideas to improve the Member Reports, please list below:

Answer:

ICRI is a valuable network for sharing expertise with partners from around the globe, to help ensure coral reefs are protected for this generation and generations to come. Australia is a founding member of ICRI and continues to be a strong supporter of the initiative. Australia also seeks to learn from the experiences of member countries facing similar challenges at local scales.

J. Contact information & member information. (Note that this information will be posted on the ICRI website on your member page: <https://icriforum.org/members/>).

Please use the table below to provide us updates to your member’s focal points as well as the blank cells to indicate changes to information (please add more rows, as needed): No change

Focal Point 1:	
<i>Name:</i>	
<i>Title/Organisation:</i>	
<i>Email:</i>	
Focal Point 2:	
<i>Name:</i>	
<i>Title/Organisation:</i>	
<i>Email:</i>	
Focal Point 3:	
<i>Name:</i>	
<i>Title/Organisation:</i>	
<i>Email:</i>	
Member page updates:	
<i>Section</i>	<i>Update</i>
<i>Related websites</i>	Add website: www.dbca.wa.gov.au
	Add website: www.aims.gov.au
<i>Intro (below third paragraph)</i>	The Australian Institute of Marine Science (AIMS) applies science-based solutions to key marine challenges. AIMS’ research in our tropical waters from Ningaloo Reef in the west, across the north of Australia to the Great Barrier Reef provides unique insights and knowledge to develop globally relevant and innovative solutions to protect and manage these valuable ecosystems and to sustainably use tropical marine resources. AIMS is also the Global Coordinator



	<p>of ICRI's Global Coral Reef Monitoring Network (GCRMN) and Coordinator of the GCRMN Australia node. The GCRMN was first established by ICRI in 1995, and provides the best available scientific information on, and communication of, the status and trends of coral reef ecosystems at a global scale, as well as a network for knowledge exchange.</p>
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Thank you very much for sharing your valuable experiences and information with ICRI. Members reports, meeting outputs and resources will be uploaded to: <https://icriforum.org/events/37th-icri-general-meeting/>