NGO Assessment of the Australian Government's Great Barrier Reef Progress Report to UNESCO World Heritage Centre – 1 February 2024

Australian Marine Conservation Society & WWF-Australia

Introduction

The 46th session of the World Heritage Committee (WHC) adopted a Great Barrier Reef decision which requested the State Party to submit to the World Heritage Centre by 1 February 2025 a progress report "on progress achieved in the implementation of the above, and including the impacts of the 2023/24 bleaching event, for examination by the World Heritage Committee at its 47th session". "The above" refers to paragraphs requesting improvements to water quality and fisheries management and alignment with a 1.5°C pathway to secure the resilience of the World Heritage property.

The Australian Marine Conservation Society (AMCS) and WWF-Australia (hereafter WWF) provide this independent assessment of the Australian Government's Progress Report. We include policy recommendations for further action to strengthen protection of this iconic World Heritage property, which is under increasingly intense pressure from climate change.

Since the 46th session of the WHC, the 2024 Great Barrier Reef Outlook Report has been released. The cover letter[i] to the report states, "Even with the recent management initiatives to reduce threats and improve resilience, the overall future outlook for the Great Barrier Reef is very poor" and the report states that the property's "integrity continues to be challenged" (p.vi).

To secure the future of this iconic World Heritage property, it is increasingly urgent for government and others to strengthen and accelerate existing efforts and introduce new conservation measures. These are outlined in our report.

Our report follows the order of the Australian Government's Progress Report:

Water Quality

Australia has failed to reach the 2025 water quality targets. Despite the Australian government's commitment to a "major shift in its water quality programs", with "immediate effect"[ii], there has not been either a major shift in policy nor on-the-ground actions with "immediate effect". An AMCS analysis shows that current levels of government funding are insufficient to meet the sediment and nitrogen targets, and that current funding needs to at least double to accelerate progress to meet any revised targets by 2030. The clearing of native vegetation in Reef catchments in 2021-22 (the latest reported

year) decreased by 13% from the previous year, however, clearing levels remain too high, particularly within riparian corridors.

Sustainable Fishing

The phase out of gillnet fishing from the World Heritage property is largely on track. The Queensland and Australian Governments have made some further progress in implementing some of the recommendations of the 2022 Reactive Monitoring Mission report over the last 12 months, however, key recommendations including implementing independent monitoring, building fish stocks to resilient biomass levels and reviewing the sustainability of the coral harvest fishery require urgent attention.

Mitigating Climate Change

Currently, Australia's climate policies and planned actions are not aligned with limiting temperature increases to 1.5°C above pre-industrial levels. To correct this, Australia's climate policies must be significantly improved across both in-country and exported emissions. Queensland's climate legislation contains a 75% below 2005 by 2035 emissions reduction target. Unfortunately, the likelihood of the new Queensland Government meeting these targets is currently at significant risk given an election commitment to repeal Queensland's legislated targets for renewable energy.

This report also:

- Includes more up-to-date data about the 2023-24 extreme weather events;
- Includes two major recommendations for conservation action in response to the Next Steps chapter; and
- Provides comment on the Supplement: Working with Traditional Owners from an Aboriginal Corporation along the Reef coastline and a recommendation regarding compliance and enforcement.

We also attach three Appendices:

1. An analysis of water quality investment by the Australian and Queensland Governments;
2. A summary assessment of the condition and trend of attributes of OUV in the 2024 Outlook Report; and
3. An Emergency Response Plan prepared by AMCS and WWF that outlines priority actions to relieve pressure on the Reef during and immediately after extreme weather events.

We are deeply concerned that there is a potential mass coral bleaching event unfolding in the Far Northern and Northern sections of the World Heritage property. In addition, a monsoonal trough over North Queensland has led to many rivers in the region reaching major flood levels. We cannot stress enough the need for urgent action to drastically reduce Australia's greenhouse gas emissions to safeguard the OUV of this irreplaceable treasure.

Finally, we are deeply grateful for the ongoing efforts by UNESCO's World Heritage Centre and IUCN to highlight the need for stronger action to conserve, protect and transmit to future generations this priceless World Heritage property.

Recommendations

Chapter 1. Improving Water Quality

1. At least double the amount of government funding for on-the-ground projects to address land-based sources of water pollution and accelerate progress toward meeting revised targets by 2030.
2. Commission an updated costing of investments needed to meet the revised pollution load reduction targets by 2030 and develop an investment roadmap to meet the targets no later than 2030 and framework for monitoring and public reporting of water quality outcomes and co-benefits against government investment.
3. Ensure the new Water Quality Improvement Plan for 2025-2030 acknowledges the urgent need to meet the water quality targets by 2030, includes the repair and restoration of coastal wetlands and riparian ecosystems as a major new initiative in the updated WQIP, and that all targets in the Plan are sufficient to ensure the OUV of the property is maintained and where relevant rehabilitated.
4. Ensure full compliance with Queensland's Reef Protection Regulations, a necessary element in achieving the 2025 water quality targets, and ensure that all Best Management Practice programs are government-accredited, effectively deliver water quality improvements, and publicly report at least annually.
5. Noting with deep concern that there is no proposal by the Queensland Government to further regulate Category X, reiterate the request to the Committee to strengthen clauses under existing laws to ensure that all remnant and high value growth areas are protected, including category X vegetation (under the *Vegetation Management Act 1999 (Qld)),* and other high priority areas including riparian zones, lands vulnerable to degradation and areas contributing to sediment and nitrogen pollution.
6. Implement the Australian Government's national environmental law reforms as a matter of urgency to effectively regulate any proposed impacts on the property from dams or other major developments.
7. Reiterate the Reactive Monitoring Mission's request to ensure that the carbon and water quality-related credit schemes being deployed in Reef catchments deliver overall net benefits to the OUV of the property and are monitored and regulated by the relevant agencies through fully transparent, science-driven and evidence-based management to that end.

Chapter 2. Sustainable Fishing

1. The Australian and Queensland Governments support the Queensland Coral Fishery to transition from wild harvest within the GBRWHA to aquaculture production by December 2027.
2. The Queensland Government expands Net-Free Zones to incorporate biologically important areas for threatened and endangered species, with a particular focus on species that represent attributes of OUV.
3. The Australian and Queensland Governments implement electronic monitoring on all trawl vessels by December 2025.

4. The Queensland Government ensures that a statistically robust proportion of electronic monitoring footage required to accurately identify interactions with threatened species is reviewed. A minimum of 20% of electronic monitoring footage is cross checked with fisher logbook reporting.
5. The Queensland Government publishes summary data from electronic monitoring systems on threatened species interactions and their fate (alive, injured, dead) each quarter, no more than three months in arrears. Discrepancies between logbook data and independent monitoring should also be made publicly available annually.
6. The Queensland Government revise the East Coast Inshore, Trawl and Coral fishery harvest strategies to ensure they reflect current target species and include decision rules that meet the targets of the Sustainable Fisheries Strategy 2017-2027.

Chapter 3. Mitigating Climate Change

1. The Australian Government should report back to the World Heritage Committee in 2026 on aligning Australia's emissions reduction targets with a 1.5°C pathway. This would be achieved by the following commitments:

    i. The Australian Government should commit to reviewing Australia's 2030 emissions reduction target by December 2025. That review must take account of the best available science and update the 2030 target to a minimum of 67% below 2005 levels.[iii]

    ii. The Australian Government should set a Paris Agreement aligned NDC including an emissions reduction target of at least 90% below 2005 levels by 2035 and net zero before 2040. We note that the 2035 NDC had been due to be communicated to the UNFCCC on the 10 February 2025 but that deadline has been extended.

2. The Australian and Queensland governments should urgently replace Australia's fossil fuel exports with new clean export industries. To do so and be aligned with what climate science shows is necessary for stabilising warming at 1.5°C, Australia should end the approval of new coal, oil and gas export projects, and map out a comprehensive national plan – with timelines - for the phase out of existing fossil fuel exports and their replacement with renewable exports.

3. The Queensland Government must urgently commit to an ambitious and credible energy plan that will ensure Queensland meets its climate targets set out in the *Clean Economy Jobs Act 2024* and provides opportunities for ratcheting up those climate targets to reach net zero before 2040.

Chapter 4. Impacts of Extreme Weather Events in 2023-24

See Recommendation 5.1.

Chapter 5. Next Steps in Adaptive Management

1. The Australian Government commit to an Emergency Response Management Plan to alleviate pressures on priority areas of the Great Barrier Reef during mass coral bleaching and other extreme weather events; and that these measures remain in place until science-based trigger points that represent adequate recovery are reached.

2. The Australian Government urgently establish an independent expert panel, independently chaired and including leading experts from science and research, traditional owners, civil society and governments, to undertake a systematic and rigorous assessment of the 2003 Zoning Plan and recommend steps required to *strengthen* its effectiveness in supporting ecosystem resilience in the context of likely climate change scenarios over the next 20 years.

Chapter 6. Working with Traditional Owners on the Great Barrier Reef

1. The Australian and Queensland governments should undertake policy and regulatory reform to provide Indigenous rangers on the Great Barrier Reef with the opportunity to assume responsibilities for enforcement and compliance activities in their Sea Country. This should be supported by funding of a new 5-year program to pilot and train Saltwater Country Sea Rangers Program that builds ranger capacity and succession arrangements for enforcement and compliance rights.

Chapter 1. Improving Water Quality on the Great Barrier Reef

Introduction

Water pollution remains a major threat to the Great Barrier Reef, despite considerable investments to improve water quality in Reef catchments over the past two decades. Elevated levels of fine sediments, nutrients, and pesticides continue to have detrimental impacts on the Reef, particularly coastal, inshore, and mid-shelf marine ecosystems. The current outlook for the Reef is 'very poor', and management efforts to improve water quality have only been 'partially effective'[iv]. Reducing water pollution is critical to increase the resilience of the Reef and support the recovery of ecosystems from the impacts of climate change[v]. To sustain the Outstanding Universal Value of the Reef, especially in the face of increasing climate change pressures, it is imperative water quality improvement targets are achieved.

Despite their importance, Australia has again failed to achieve its committed water quality targets, which were due for completion in 2025 (Appendix 1). The latest joint government Reef Report Card showed that progress towards the targets had slowed down (reporting period until 2022) and that at the reported rate of progress, the targets for the two main pollutants would not be met until 2047 (fine sediment) and next century (2114) for dissolved inorganic nitrogen (DIN) (Figure 1).

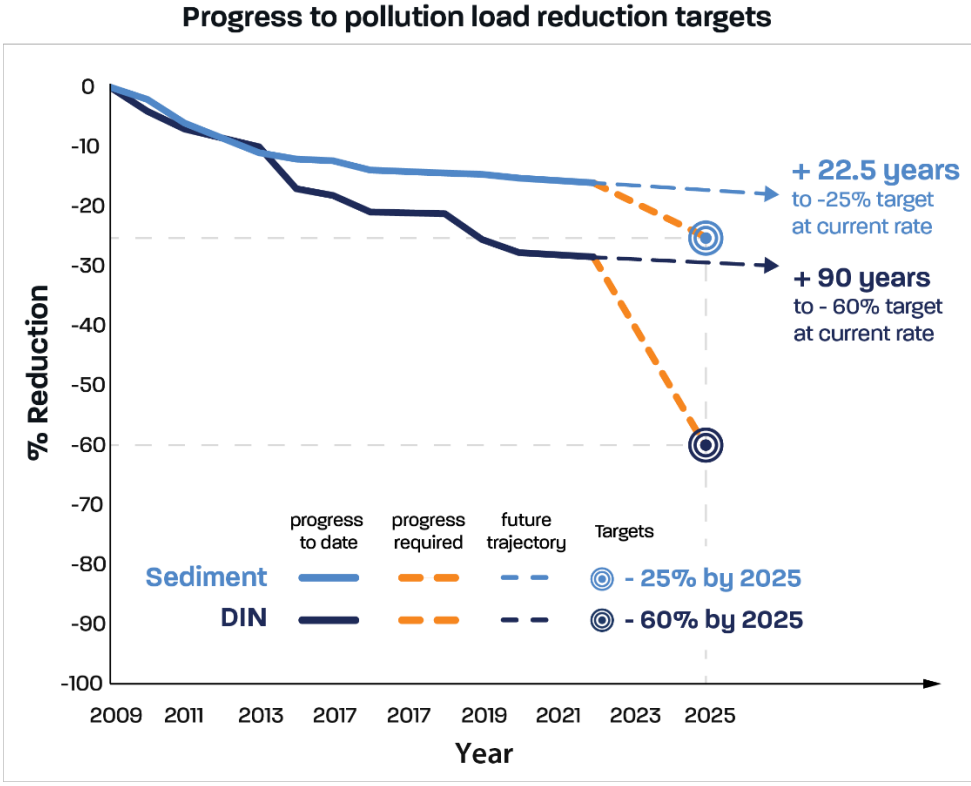

Figure 1. Progress towards targets for reducing the amount of two main water pollutants, sediments (light blue) and nitrogen (dark blue) measured against a baseline established in 2009. Targets are due in 2025 (coloured circles), but with current progress, they will only be met in 2047 (fine sediment) and 2114 (DIN).

Government Investments in Water Quality Improvements

A significant reason for Australia's failure in achieving the water quality targets again has been a lack of targeted funding. Appendix 1 (*An analysis of water quality investment by the Australian and Queensland Governments*) provides an overview of government investments to improve Reef water quality from 2003 to 2030 and assesses their effectiveness in reducing water pollution, based on publicly available reports. We identify a large gap in funding, with less than one-quarter of the required funds invested over the last two decades. As a result, current progress to reduce water pollution is too slow to protect the Reef.

Since 2003-04, investments intended to improve water quality total some AU$2,298.3M to 2029-30, with the Queensland Government investing up to AU$964.8M and the Australian Government AU$1,333.5M. The Government's current investment continues until 2029-30. Thus, government investments to date dedicated to achieving the recommended reductions in anthropogenic pollution loads and other management targets amount to just over 28% of the estimated costs (AU$8.2 billion) that are required to reach the targets for only two main pollutants, fine sediments and nitrogen (DIN).

Figure 2 shows the estimated progress to DIN and fine sediment targets likely to be achieved from the combined AU$2.3 billion government water quality investments since 2003. At best, by 2030 under current government programs, Reef-wide progress to targets will be 37% for fine sediment pollution and 83% for DIN.

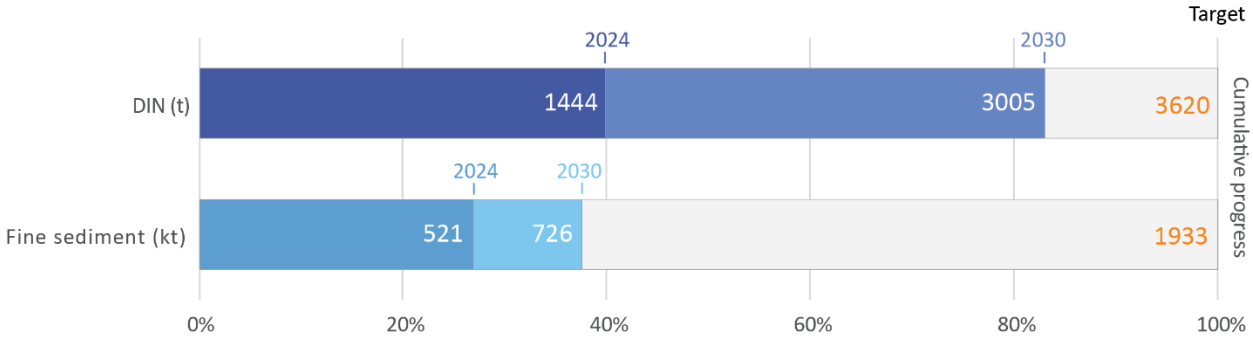

Figure 2. Cumulative progress towards end-of-catchment load reduction targets predicted from government investments committed until 2024 and 2030 (Alluvium, 2022). Dissolved inorganic nitrogen (DIN; in tonnes) and fine sediment (in kilotonnes).

It is important to note that previous cost estimates for achieving water quality targets are conservative, focusing on two primary pollutants (fine sediment and DIN) and farming practice change as the primary management intervention. They have not considered potential costs arising from further deterioration of areas not managed or targeted by funding, disadoption of improved practices over time nor inflation. Additionally, these costings do not account for the long timeframes needed to achieve peak adoption levels for some farming practices, and the growing recognition of the need to invest in coastal ecosystem and riparian restoration including the transition of marginal agricultural lands. A comprehensive evaluation of the cost-effectiveness of management efforts to reduce water pollution is also currently limited due to the scarcity of publicly available data linking investments to achieved water pollution reductions. The most recent costings for achieving the water quality targets is now almost 10 years old. An updated cost analysis that accounts for updated effectiveness of management actions and costs the actions required to achieve the revised water quality targets is urgently needed.

In the past decade the more effective investments to reduce sediment have targeted, in general, interventions deemed to be the most cost-effective. Projected cost curves for expenditure required to meet the water quality targets show that, as progress to the sediment targets is achieved, the interventions will become more expensive. The Reef Trust Partnership investment phase (2018-25) also noted that the unit cost per kilotonne (kt) of fine sediment abatement has increased markedly due to increasing delivery costs. These factors mean that significant additional investment is required to achieve the water quality targets.

Despite the increase in investments to reduce water pollution since 2018, the Australian and Queensland Governments continue to lack a well-coordinated and strategic approach to identify the locations contributing the most pollution. The governments have not presented any plans to map priority areas for reducing nitrogen pollution through the delivery of the AU$192 million *Clearer Water for a Healthy Reef* program, and the report identifying priority sediment interventions on grazing land is still not publicly available.

The 6-year Reef Trust Partnership delivery model (2018-24) is now wrapping up, and the full administration of the Australian Government's Reef water quality investments has reverted to the Department of Climate Change, Energy, Environment and Water (DCCEEW). This has resulted in up to a 12-month pause in the roll-out of the Australian Government's investment.

The Progress Report states, "The Australian and Queensland Governments, along with private sector contributions, have committed more than AUDAU$5 billion from 2014-15 to 2029-30 to implement conservation and protection measures" (p.4). This figure includes a range of management programs including funding the Reef Authority, the joint field management program for the GBR Marine Park, management of shipping, ongoing research and monitoring, not just water quality improvement initiatives.

Gully Repair, Restoration and Remediation

RMM Recommendation P1 / 46 COM 7B.62, Paragraph 4)

Actual on-ground progress to reduce sediment pollution continues to be very modest relative to the scale of the problem and timeframes needed to build Reef resilience. The major current investment is via the Australian Government's AU$200 million *Landscape Repair Program*, which was announced in February 2024. Contracts with the six GBR Natural Resource Management (NRM) regions to act as delivery partners were finalized at the end of 2024. To date, there have been no public announcements on projects to be funded. While the CSIRO-led report to map priority grazing lands to guide the investments under this program has been completed, it is not publicly available.

The Progress Report cites two additional programs under the response to 46 COM 7B.62 paragraph 4, namely the Australian Government's AU$28.5 million *Reef Coastal Restoration Program* and Queensland's AU$5.43 million *Reef Assist 2.0 Program*. Both programs are short-term and have multiple objectives including enhancing local employment opportunities for remote and regional communities. The *Reef Coastal Restoration* Program has a total of 18 unrelated projects with diverse objectives, from seagrass restoration to carbon storage, and are scheduled for delivering outcomes by mid-2025. *Reef Assist 2.0* funded 11 projects commencing in 2023-24. Three were completed by December 2024 with an

investment of AU$1.38 million. While individual projects have their merits, in particular employment of First Nations peoples, they are unlikely to make a significant contribution to reducing water pollution, given the short timeframes, lack of monitoring outcomes, and lack of focus on restoring landscapes for water quality outcomes.

Reef 2050 Water Quality Improvement Plan (WQIP)

RMM Recommendation P5 / 46 COM 7B.62, Paragraph 6)

2022 Independent Scientific Consensus Statement

The 2022 Scientific Consensus Statement, the work of 200 experts, has emphasised the continuing impacts that poor water quality is having on the health of the Great Barrier Reef. For the first time the consensus statement has linked poor water quality to worsening the impacts of climate change and stressed the need for governments to focus on hot spots for pollution, rather than spread investment thinly across the whole catchment.

Review of the Reef 2050 WQIP

Two critical reviews are still to be finalised which must inform the review of the Reef 2050 WQIP, namely the review of the ecologically relevant water quality targets for each of the major Reef catchments, and the review of management practices undertaken by the major agricultural industries in the Reef's catchments. This latter review should provide insights into the contribution that each of these practices make to the achievement of the water quality targets and their effectiveness, resources and timelines for delivering improved water quality outcomes.

Finalising and releasing the review of the Reef 2050 WQIP no later than the end of 2025 is essential. It is likely that the timeframe for meeting the water quality targets will be extended to 2030. Given the current shortfall in meeting the targets, the reduced rate of progress in recent years (Figure 1) and committed government investments to date, it is extremely unlikely that the targets can be met by 2030.

In addition to our recommendations, and to improve the rate of progress, the following are needed: fast tracking of the current Australian Government investments, additional investment by both Queensland and Australian Governments, and effective stacking of multiple market-based instruments to improve the uptake of these potential private investment pathways; completion and public release of expert reviews of identification of priority investment sites for sediment and nutrient reduction, and wetlands and coastal ecosystem restoration; and improved coordination of all investments and regular, timely reporting of progress on achieving the water quality targets.

The Progress Report provides commentary on emerging Australian Government programs and ongoing Queensland Government programs. All these initiatives are important, however, there is no sense of urgency to their roll-out with little detail on what will be achieved and by when. What is needed is an urgent update to the 2016 cost estimates for achieving the water quality targets[vi], and a 5-year investment roadmap and framework for monitoring and public reporting of water quality outcomes and co-benefits against government and private investment.

Clearing of Native Vegetation

RMM Recommendation P4 / 46 COM 7B.62, Paragraph 5)

The clearing of native vegetation continues in Reef catchments in riparian zones, lands vulnerable to degradation and other areas contributing to sediment and nitrogen pollution. The latest publicly available report by the Queensland Government (SLATS 2021-22), released in July 2024, reveals that:

- 143,683 hectares were cleared in Reef catchments (44% of the state's total clearing);
- About 79% (113,765 hectares) of the clearing in Reef catchments resulted in the full removal of the woody vegetation; and
- While clearing in 2021-22 decreased slightly (13%) from the previous year, clearing levels remain high.

Riparian vegetation clearing

The latest Great Barrier Reef Water Quality Report Card (combining years 2021 and 2022), released in May 2024, showed an alarming loss of riparian native vegetation: "The loss of riparian woody vegetation in the period 2018-2021 showed very poor progress towards the target overall with 47,519 hectares (0.78%) cleared during this period. Most of this loss occurred in the Fitzroy, Burnett Mary and Burdekin regions."

It continued: "Vegetation in riparian areas is important for water quality as it increases streambank stability and helps intercept overland flows, preventing sediment and nutrient generation from erosion." The vast majority of riparian clearing in Reef catchments is lawful.

The Reef 2050 WQIP includes the following 2025 catchment management target: "The extent of riparian vegetation is **increased**." [bold added] The latest report card gave an E grade (very poor) for this target.

The latest Scientific Consensus Statement, released 1 August 2024, states: "For wetlands, threats include landscape modification and **vegetation clearing** leading to wetland loss, poor water quality, invasive species, changes in hydrological connectivity, and increasing temperature and salinity from climate change." [bold added]

Remnant, high value regrowth and category X clearing

The Progress Report states: "The *Vegetation Management Act 1999 (Qld)* prohibits broadscale clearing in both remnant vegetation and areas of high value regrowth." The critical word here is "in". The Act does not prohibit the clearing of remnant vegetation and areas of high value regrowth. There may be some of these vegetation categories that are prohibited but Queensland Government data speaks for itself.

Remnant vegetation clearing accounted for about 20% (65,776ha) of the total clearing activity in Queensland — a 22% increase from 2020–21 (54,136ha). Almost two-thirds of this clearing (62% or 40,577ha) resulted in full removal of the woody vegetation. The SLATS report does not provide a breakdown of remnant and high value regrowth clearing in Reef catchments. However, it is likely that clearing of remnant and high value regrowth increased in at least some Reef catchments.

Category X clearing accounted for 78% (252,538ha) of the total clearing activity in Queensland. The SLATS report does not provide a breakdown of category X clearing in Reef catchments. Given that 44% of the state's clearing occurred in Reef catchments, it is highly likely that a great deal of Category X clearing continued to occur in Reef catchments, despite the 2022 Reactive Monitoring Mission P4 recommendation and two subsequent World Heritage Committee decisions.

The main driver of Category X clearing is the beef industry which is a dominant land use in the upper sections of the Fitzroy, Burdekin, Herbert and Mary River catchments. These catchments are the four largest contributors to fine sediment and particulate nitrogen pollution entering the Great Barrier Reef.

Both the Australian and Queensland Governments have not moved to: "Strengthen clauses under existing laws to ensure that all remnant and high value growth areas are protected, including category X vegetation", as requested at 46COM. The Progress Report simply states "there is no proposal to further regulate Category X".

The Progress Report gives the same examples as given in the 2024 Progress Report to demonstrate protection of remnant and high value regrowth vegetation (GBR Island Arks initiative and Cape York Peninsula Tenure Resolution Program). As we pointed out in our critique of the 2024 Progress Report, these programs, while important, are by no means a *targeted* response to strengthen legislation to protect remnant native vegetation and limit the conversion of high conservation value areas.

Early detection and intervention to halt illegal land clearing

We continue to support the Queensland Government's world-leading SLATS program and, as stated in our critique of the 2024 Progress Report, we fully support the investment in early detection of illegal clearing and compliance. However, a note of caution: A new Liberal-National Party (LNP) Government was elected in Queensland in October 2024. The last time the LNP was in government, it failed to enforce the *Vegetation Management Act 1999 (Qld)*.

In summary, as the laws stand, most clearing in Reef catchments is legal.

Best Practice Land Management

RMM Recommendation P3 / 46 COM 7B.62, Paragraph 4)

Voluntary industry-led Best Management Practice (BMP) programs, supported through investments from the Queensland Reef Water Quality Program, are designed to help increase the adoption of farming practices that maximise productivity and profitability while also reducing water quality impacts. The BMP programs have continued in parallel with the roll-out of the Reef Protection Regulations which were required because there was insufficient uptake of the voluntary industry-led programs.

Currently, only two BMP programs, SmartCane and Reef Assured Banana, are government-accredited. The accreditation verifies that farming businesses operate consistent with, or better than, the minimum practice standards under the Reef Protection Regulations through regular (for example, 5-yearly for the SmartCane BMP), independent, third-party audits. The two accredited BMPs have been granted recognition up to April 2025 and up to March 2026, respectively.

Since February 2024, there has been a 3% increase to 44% of sugarcane land in GBR catchments accredited under the SmartCane BMP. No publicly available data exists for the banana industry. We note Australia's May 2023 commitment of 50% of sugarcane and banana areas operating above minimum practice standards by June 2026.

Except for the sugarcane and banana industries and the government-led Grazing Resilience and Sustainable Solutions (GRASS) program, BMPs for all other industries are currently not required to report information on participation and do not guarantee that farmers meet all minimum practice agricultural standards under the Reef Protection Regulations. Overall, there is insufficient evidence to evaluate the effectiveness of BMPs in achieving water quality improvements and reducing pressure on the OUV of the property.[vii][viii]

The Queensland Government's compliance program aims to enforce compliance with the Reef Protection Regulations. It has set up a compliance dashboard for the Environment Department's engagement with sugarcane and banana growers and graziers in GBR catchments, reporting on compliance data until December 2023.

The dashboard shows that across the three industries, almost half of the inspected businesses were not compliant with the regulations at first contact with a compliance officer (sugarcane: 42.8%, banana: 45.5%, grazing: 48.3%). The reported data suggests that only 28.6% of sugarcane businesses (data only available for sugarcane) were non-compliant at follow-up visits by compliance officers. This demonstrates the importance of an ongoing and well-funded program to drive compliance with the Reef Protection Regulations.

In the 2024 Progress Report, the Australian Government states: "The number of reef compliance officers in 2023 has more than doubled compared to 2021, and consequently, compliance activity has substantially increased, and the target of doubling physical (on-farm) inspections has been exceeded."

Publicly available data on the government's compliance dashboard shows that over its lifetime, between March 2016 to December 2023, the program has undertaken 1,752 compliance activities, averaging less than 18 inspections per month across all three industries. The Queensland Government report on the statutory review of the Reef Protection Regulations tabled on the 8th of March 2024 further reports that 307 sugarcane farm inspections were undertaken between December 2019 and December 2023, averaging 6 inspections per year for the entire industry. There are more than 3,000 cane farms in the GBR catchment, covering about 350,000 hectares.

Given Queensland's overall low compliance effort, the doubling of compliance activity reported in the February 2024 and February 2025 Progress Reports, is insufficient to ensure significant progress toward water quality targets. Full compliance with the Reef Protection Regulations is estimated to contribute 31.5% progress towards the dissolved inorganic nitrogen (DIN) water quality targets.[ix] Achieving full compliance with the regulations is therefore a cost-effective and immediate action the Queensland Government can take to accelerate progress towards meeting the water quality targets. The Queensland Government should increase the number of compliance officers and provide sufficient training to ensure consistent quantity and quality of compliance efforts. Further, the data generated by the compliance program is not suitable for tracking changes in compliance

over time, impeding an evaluation of the effectiveness of the program. To evaluate progress resulting from compliance activities, the program needs to implement a robust and unbiased data collection and monitoring plan.

Environmental Regulation

RMM Recommendation P2 / 45 COM 7B.13, Paragraph 4.b) / 46 COM 7B.62, Paragraph 4

At 45COM, the WHC adopted a decision, based on the 2022 reactive Monitoring Mission report, requesting that Australia require proposed and in-progress dam developments to show clear alignment with water quality improvement for the Great Barrier Reef, and welcomed the cancellation of two major proposed dams (Urannah and Hells Gate).

The subsequent 2024 Progress Report noted that Australia's national environmental law to assess impacts on the Reef from a dam or other project is the *Environment Protection and Biodiversity Conservation Act (EPBC) 1999*. The report outlined three initiatives to reform the EPBC Act, which were outlined in the government's December 2022 *Nature Positive Plan*:

- New national environmental standards
- A new independent agency, the Environment Protection Australia, with a legislative mandate
- A new agency, Environment Information Australia, also with a legislative mandate

The 2024 Progress Report stated: "These reforms will enhance confidence in the capacity of Australia's national environmental laws to effectively regulate any proposed impacts on the Reef into the future."

The Great Barrier Reef decision adopted at 46COM did not include a specific paragraph about dam development as the issue no longer appeared to be a threat. As a result, the 2025 Progress Report no longer includes a section on Environmental Regulation.

We include this section because the Australian Government has failed to deliver on all three of the above signature reforms during this term of government. After pressure from the West Australian mining industry and the West Australian Premier, the Prime Minister deferred the reforms to the next term of government.[x] As a federal election is due on or before 17 May 2025, it is unclear whether the reforms will be progressed.

The new Queensland Government elected in October 2024 is yet to reveal plans for dam projects but has a history of supporting major dam developments.

Carbon and water quality-related credit schemes

RMM Recommendation P2 / 46 COM 7B.62, Paragraph 4

At 45COM, the WHC adopted decision 45 COM 7B.13 4.g), based on the 2022 reactive Monitoring Mission report, requesting that Australia, "ensure that the carbon and water quality related credit schemes being deployed in the GBR catchments deliver overall net benefits to the OUV of the property."

The 2024 Progress Report stated that the Australian and Queensland Governments are working to establish the voluntary Reef Credits Scheme and the Nature Repair Market.

The Great Barrier Reef decision adopted at 46COM noted the above progress and again urged the State Party, "to ensure overall net benefits to the OUV of the property are delivered."

While carbon and water quality-related credit schemes have the potential to contribute towards preserving the OUV of the property, the State Party should not rely on them to address major threats to the property. A continued focus on regulation and ecosystem repair is needed to immediately address major threats to the property while improved frameworks underpinning the credit schemes are being developed.

The *Nature Repair Act 2023,* which aims to establish a voluntary national biodiversity market, came into effect in December 2023. Slow progress is being made to develop the rules for undertaking eligible nature repair market projects. The legislation is unlikely to deliver Reef water quality benefits for some time to come.

Existing voluntary credit schemes have been slow to attract third-party investments and deliver net benefits for the environment due to the lack of incentives driving demand by the private market. For example, the Reef Credit Scheme has delivered an abatement of 46 tonnes of dissolved inorganic nitrogen (DIN) over seven years, approximately 6.57 tonnes per year, as of June 2024.[xi] The total contribution amounts to 1.27% of the 3,620-tonne DIN reduction target over the scheme's lifespan. The Queensland Government has invested major funding into the development of the Reef Credit Scheme and most Reef Credits to date have been purchased back by the Queensland Government. Thus, the costs to the public per unit of pollutant load reduction have been high (over AU$200,000/tonne DIN[xii]) and the time to delivery is long when compared to investing directly into restoration projects that aim to reduce pollutants from the overuse of fertilisers (AU$7-9,000/tonne DIN[xiii]).

Due to the current lack of regulatory drivers and the challenge of developing the underpinning legal frameworks, it is unlikely that carbon and water quality-related credit schemes in the GBR catchments will deliver measurable overall net benefits to the OUV of the property in the short term.

Chapter 2. Sustainable Fishing on the Great Barrier Reef

Introduction

The Queensland and Australian Governments have made some further progress in implementing some of the recommendations of the mission report over the last 12 months, however, key recommendations including implementing independent monitoring and reviewing the sustainability of the coral fishery require urgent attention.

The phase out of gillnet fishing from the World Heritage property is largely on track with the transitional 'NX' gillnet fishery operating throughout 2024. Electronic monitoring has been implemented on vessels in the NX fishery and a voluntary trial with limited uptake is occurring in the trawl fishery.

The next 12 months are essential for the establishment of a detailed policy framework and full implementation of electronic monitoring to meet the mission report Recommendation O7. Serious concerns regarding the take of hard corals from the World Heritage property remain, particularly given the very poor outlook for corals and the property in the face of climate change and increasingly frequent and intense mass bleaching events. Further work is also required to ensure that the targets of the Sustainable Fisheries Strategy are fully delivered, in particular that fish stocks are built to resilient biomass levels and no species are overfished within the World Heritage property.

Net Fishing

46 COM 7B.62, paragraph 7; RMM Recommendation P10

The Queensland and Australian Governments have made good progress to deliver recommendation P10 of the mission report and World Heritage Committee decision. From 1 January 2025 previous N1, N2 and N4 licenses were revoked and a transitional NX gillnet fishery established until June 2027. 28 licenses have been granted to operate in the NX fishery under strict conditions, including mandatory electronic monitoring and improved net attendance rules. We also commend the Australian Government for establishing regulations that complement Queensland legislation regarding the phase out of gillnets.

Net-free zones (NFZs) have been established in key habitats for some threatened species including the far northern Great Barrier Reef (from Cape Bedford to the Torres Strait) and in existing high value dugong habitats identified as Dugong Protection Areas, as well as in the Gulf of Carpentaria. Dugongs, marine turtles and inshore dolphins are attributes of the OUV of the Great Barrier Reef. Dugongs and marine turtles were considered in poor condition in the 2024 Great Barrier Reef Outlook Report[xiv] and inshore dolphins are listed as high priority species for conservation under the Reef 2050 Plan.

We note that the World Heritage Committee decision 46 COM 7B.63 requests that new Net-Free Zones in key habitats for species that represent attributes of OUV are established. To date this has not occurred, and while existing NFZs protect key habitats for some species we note biologically important areas and key habitats for dugongs, turtles, dolphins and sawfish remain open to fishing. We are not aware of any evidence to support the assertion in the Progress Report that risks to threatened species in the DPA B rivers and creeks is broadly lower compared to other habitat areas, especially given the known habitat importance of rivers and creeks to many threatened species and in particular, sawfish[xv].

At present threatened species interactions reported by fishers are made publicly available on a monthly basis. Despite the implementation of electronic monitoring, no summary data from electronic monitoring is currently made publicly available. In 2024 fishers reported interacting with no dugongs, 1 dolphin, 31 turtles, 104 sawfish, 14 manta rays, 1 humpback whale, 6 saltwater crocodiles, 11 sea snakes and 3 speartooth sharks. All interactions with threatened species noted the animal was released alive. It is positive that reported interactions for some threatened species including dugongs, dolphins and sawfish have declined, likely due to fewer fishing licenses, lower fishing effort and the new NFZs. However, we note that interactions with manta rays have significantly increased, with zero interactions reported from 2021-2023. The interaction with a humpback whale is also the first since record began in 2006. We also understand that in August, 51 narrow sawfish were caught in a single fishing event.

Despite better net attendance measures, experts in the field, who we have consulted, believe it is highly unlikely that a 100% survival rate for these threatened species interactions will be achieved, given the documented mortality rates for species such as the narrow sawfish being as high as 50-100% in Australian gillnet fisheries[xvi]. It is also unclear what proportion of electronic monitoring footage is being reviewed, whether threatened species interactions are validated and whether discrepancies between reported interactions and electronic monitoring data exist. We remain concerned about delayed mortality and sublethal impacts on entangled threatened species within the fishery. Full removal of gillnets from the World Heritage property in 2027 will contribute significantly to the resilience of these threatened species.

Queensland Sustainable Fisheries Strategy

46 COM 7B.62, paragraph 7; RMM Recommendation P9

In the last 12 months there has been little further progress by the Queensland Government in accelerating the implementation of the Sustainable Fisheries Strategy (SFS). Key actions, such as the implementation of Independent Monitoring are running more than four years behind schedule. Some of the 2027 targets of the Strategy are unlikely to be achieved. In particular building all fish stocks to 60% of unfished biomass, ensuring no species are depleted or subject to overfishing, and maintaining Wildlife Trade Operation accreditations for all fisheries (which provide for the export of fishery products and indemnity for incidental interactions with protected species).

At present, five stocks remain depleted or overfished: Spanish mackerel, saucer scallop, snapper, scalloped hammerhead and great hammerhead. Spanish mackerel, saucer scallop and snapper remain open to fishing within the World Heritage property, despite their depleted status. A number of other fish stocks (e.g. saddletail snapper) are currently fished to levels considerably below the 60% target biomass, with management action to build their populations lacking. However, we are pleased that hammerhead sharks have been made a no take species for all sectors, and scalloped hammerhead have recently been listed as Endangered under Queensland's *Nature Conservation Act 1992.*

While we acknowledge that the Queensland Government has harvest strategies in place for all fisheries that operate within the property, we are concerned that a number of these harvest strategies are not fit for purpose or are not being appropriately implemented. The East Coast Inshore Fishery harvest strategy and protected species management strategy has not been updated since the phase out of the gillnet fishery and the major changes to gillnet fishing which constitutes the main harvest method in the fishery.

In addition, the Coral Fishery harvest strategy is not fit for purpose due to changes to the management of the fishery in 2022, including restrictions on the commercial take of CITES listed species, species-specific quota reporting and a revised Ecological Risk Assessment. Harvest strategies for components of the trawl fishery are also not fit for purpose due to a change in target species in the southern inshore region due to a scallop closure, while the northern and central trawl regions are still managed by effort caps set at historical effort levels as opposed to stock assessment informed caps to meet target biomass levels.

Performance against fishery decision rules have not been reviewed in the East Coast Inshore and Reef Line Fisheries, as well as the Southern Offshore and Southern Inshore components of the trawl fishery in 2024, inhibiting management of these fisheries and risking the delivery of the SFS targets. Furthermore, decision rules that may require more precautionary management measures have been triggered in some fisheries (e.g. saddletail snapper - Reef Line Fishery) and no management action has been taken.

We are also concerned that the regular stock assessment schedule identified in the SFS (every 1-2 years) and in the harvest strategies (every 3 years) is not being delivered. While we acknowledge that there are competing priorities for resources, key stocks such as barramundi have been delayed by more than two years, with the stock assessment now more than five years old.

Independent Data Validation

46 COM 7B.62, paragraph 7; RMM Recommendation O7

While we acknowledge that some progress has been made with the implementation of electronic monitoring in the gillnet fishery, serious concerns remain regarding the slow progress to implement independent data validation in the trawl fishery.

Under-reporting of threatened species interactions is understood to be continuing in the trawl fishery in the absence of independent data validation. However, reported interactions with sea snakes increased from a low of 269 in 2022, to 2,932 in 2023 and 2,330 in 2024 (Incomplete: Quarter 1-3 only). Reported sawfish interactions have also increased from zero reported in the years 2019-2022, to 10 in 2023 and 39 in 2024 (Incomplete: Quarter 1-3 only). These increases are likely to still be a significant underestimate but are reflective of the efforts of some fishers to accurately report interactions. Based on previous studies of sea snake bycatch in the trawl fishery[xvii] and the Bycatch Reduction Devices currently in use in the fishery, we estimate that there were approximately 21,527 sea snake interactions in the fishery in 2023.

While the legislative amendments create a head of power to mandate electronic monitoring, no detailed policy or regulations were made public in 2024 and little progress has been made since the start of the year. The electronic monitoring pilot in the trawl fishery has continued throughout 2024 with no additional participation and, at present, no detailed policy or plans for implementation in the fishery. We understand that the pilot was completed at the end of 2024, however, to date no findings from the pilot have been made publicly available and it is unclear if the vessels involved in the pilot are still operating with independent monitoring. In 2024 the Queensland Government also failed to meet the WTO condition requiring “By 20 May 2024, the Queensland Department of Agriculture and Fisheries must develop and implement a statistically robust, independent, quantitative and validated monitoring and

data collection regime in the Queensland East Coast Otter Trawl Fishery…"[xviii] and was subsequently granted an amendment and extension to meet the condition. Full implementation of electronic monitoring must be urgently addressed by the Queensland and Australian Governments.

While we acknowledge the progress in implementing electronic monitoring on all vessels in the NX gillnet fishery, there is no publicly available policy in regard to footage review protocols, data validation and cross checking with logbook information. We expect approximately 10% of footage is currently being reviewed. An appropriate proportion of footage must be reviewed in order to obtain accurate data in regard to threatened species interactions in high risk fisheries. At a minimum, 20% of footage must be reviewed and cross checked with fisher logbook reporting. Some studies suggest a minimum of 75-80% is required for rarely encountered species[xix,xx], which should be achievable for the NX fishery, however, we acknowledge that this may be cost prohibitive for the trawl fleet, unless reviewed at high speed or with the assistance of artificial intelligence software. Summary data on threatened species interactions and their fate (alive, injured, dead) from electronic monitoring should be made publicly available each quarter, no more than three months in arrears. Discrepancies between logbook data and independent monitoring should also be made publicly available annually.

Bycatch Reduction Devices

46 COM 7B.62, paragraph 7; RMM Recommendation O8

Implementation of this recommendation is continuing to progress. Fisheries Research and Development Corporation Project 2023-009[xxi] is currently trialling bycatch reduction devices (BRDs) with the aim of reducing interactions with sea snakes and small elasmobranchs in the trawl fishery. Initial results are positive with at sea trials reducing the catch of sea snakes by approximately 20-65% dependent on placement within the net. Further results are anticipated in late 2025. Should final results confirm the efficacy of new BRDs, it is essential that these are mandated in the trawl fishery and replace inferior BRDs currently in operation.

Protected Species Management Strategies

46 COM 7B.62, paragraph 7; RMM Recommendation O9

No progress has been made against this recommendation in the last 12 months. The Protected Species Management Strategy (PSMS) is not currently fit for purpose, however, the introduction of electronic monitoring to the NX gillnet fishery is anticipated to improve its effectiveness. Urgent updates are required to introduce science-based trigger limits for threatened species mortalities. If these are breached, spatial closures should be enacted for a biologically relevant period of time to allow populations of threatened species to recover. These trigger limits are urgently required to ensure the cumulative impacts of bycatch across a fleet of fishers do not have population level impacts on threatened species.

There has been no further progress regarding a PSMS for the trawl fishery. However, progress in bycatch reduction trials and the rollout of independent monitoring should support an effective PSMS.

Coral Harvesting

46 COM 7B.62, paragraph 7; RMM Recommendation O10:

To date there has been no comprehensive review of current coral harvesting practices since the publication of the mission report. Given the very poor outlook for the Great Barrier Reef and the increasing frequency and severity of climate induced disturbance events, in particular mass coral bleaching, we consider a wild harvest coral fishery to be incompatible with the conservation goals of a World Heritage property.

At present up to 190t of coral can be harvested from the World Heritage property each year. This is split into two basket quotas, comprising 50t of specialty corals which make up many of the key target species within the fishery, each with individual catch limits, and 140t of other species including *Acroporidae, Pocilloporidae* and soft corals. Catch in the fishery has been between approximately 70-120t in recent years, and the number of pieces harvested has stabilised following unprecedented increases between 2006 and 2019.

Two recent research projects provide preliminary findings regarding the impact of the fishery on *Acroporidae* and speciality corals, however, these studies alone are not suitable to determine the fishery's sustainability. A localised status assessment of specialty corals found evidence of localised depletion occurring, adversely affecting the population size and structure in the main regions of the fishery. The study noted that abundance, density and biomass was lower for the majority of species in fished areas versus those closed to fishing. Significantly lower biomass in fished areas was observed for some of the most valuable target species, such as *Micromussa lordhowensis* which had a biomass of less than 60% of that observed in comparable no take areas[xxii].

Another recent study aimed to determine the species composition of *Acroporidae* harvested in the fishery. The study notes that more than 54% of the harvest is made up of 10 *Acropora* species, with *Acropora aff. microclados,* accounting for 22% of the catch alone. The study also notes that further research is needed including sampling and genetic sequencing to resolve the taxonomy and identity of heavily harvested *Acropora spp*. In-water sampling is also necessary to complement detailed studies of catch composition to assess the availability of different species and sustainability of harvesting[xxiii]. At present, we know nothing of the sustainability of harvest of *Acropora* corals and with a competitive multi-species quota of 19.5t have little in the way of management tools to restrict harvest to address sustainability concerns or localised depletion.

It is important to note that many of the coral species targeted in the Queensland Coral Fishery (QCF) are particularly susceptible to coral bleaching and mortality. *Acropora* and *Pocillopora* species are fast growing coral that are highly vulnerable to thermal stress, bleaching and mortality. Other studies have shown that two of the specialty corals, and some of the most sought-after corals within the fishery, *Homophyllia australis* and *Micromussa lordhowensis*, are also extremely susceptible to thermal stress, with all corals subjected to thermal stress suffering mortality within the course of the experimental treatment[xxiv].

Queensland fisheries data shows that the majority of coral harvest occurs off the Mackay and Cairns regions, followed by south Queensland and the Keppel Islands. Bleaching was particularly acute in the

southern GBR and Keppel region in 2024, while the aerial surveys show a high proportion of reefs off Mackay and Cairns suffering from high to extreme bleaching[xxv]. It is highly likely that a large proportion of the reefs where the QCF operates were subject to high thermal stress and high to extreme levels of bleaching, with some of the largest reductions in coral cover observed on the northern and southern GBR (e.g. 41% reduction in coral cover in the Capricorn Bunker Group following the 2024 mass bleaching event[xxvi]). The harvest of healthy corals reduces the health, resilience and ability of corals to repopulate following a disturbance event. Figures 3 and 4 below show a comparison between QCF fishing effort and observed coral bleaching.

We consider that the ongoing localised depletion and high harvest levels of specialty corals and some *Acropora* species may be detrimental to the survival of coral species given the GBR is subject to ever increasing pressure from disturbance events which lead to the mass bleaching and mortality of corals. It is our view that current harvest levels cannot be justified. We understand that many of the current operators of the fishery have significant aquaculture infrastructure used for growing coral fragments for sale. We recommend that government support is provided to phase out the wild harvest of coral from the World Heritage property and rapidly transition to aquaculture production.

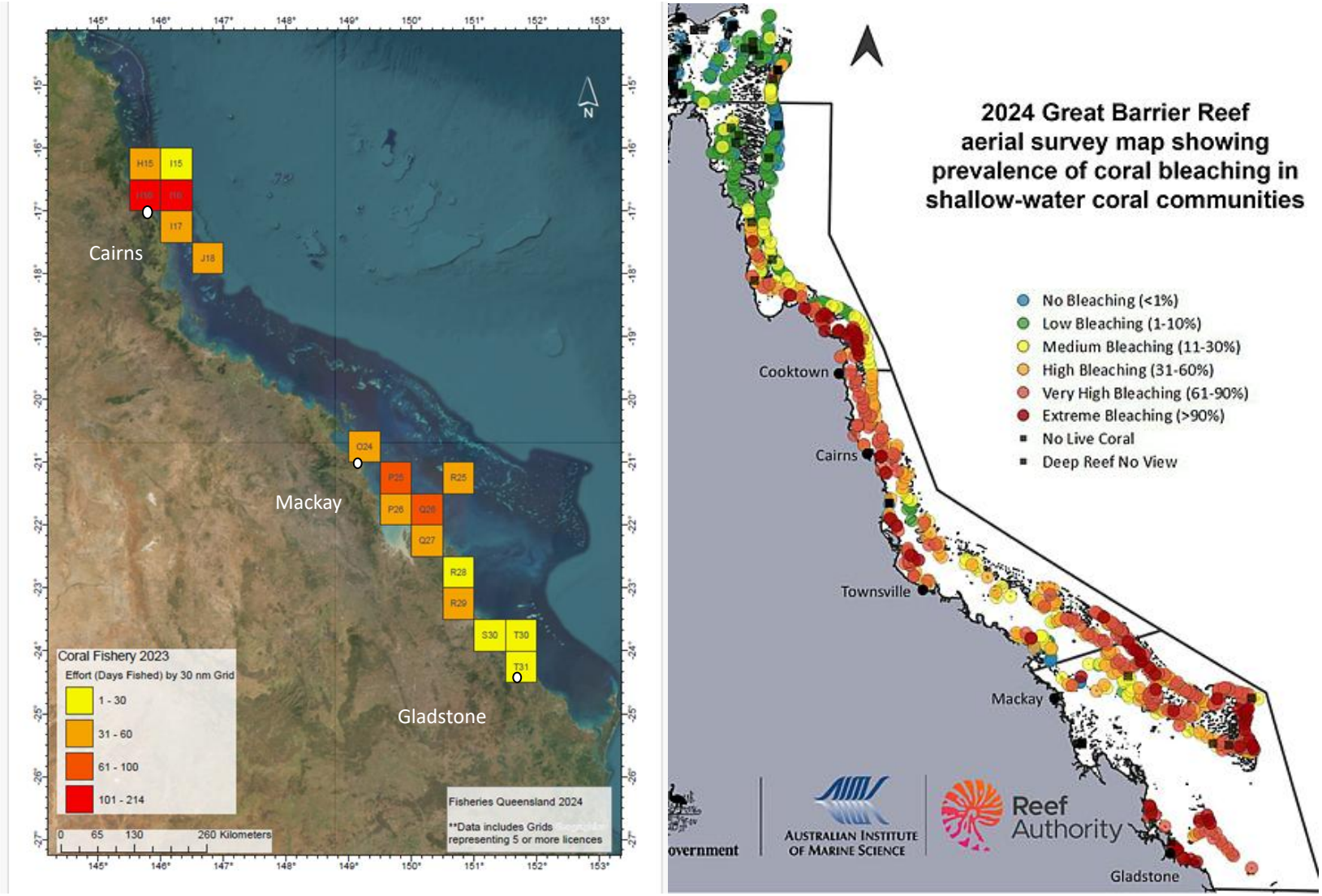

Figure 3: A comparison of coral fishery fishing effort (grid cells with more than 5 licenses only) and observed bleaching via aerial surveys during the 2024 mass bleaching event. Note that an absence of effort days on the fishing heat map does not mean that no fishing activity took place at that location, only that it may have been conducted by less than 5 licenses.

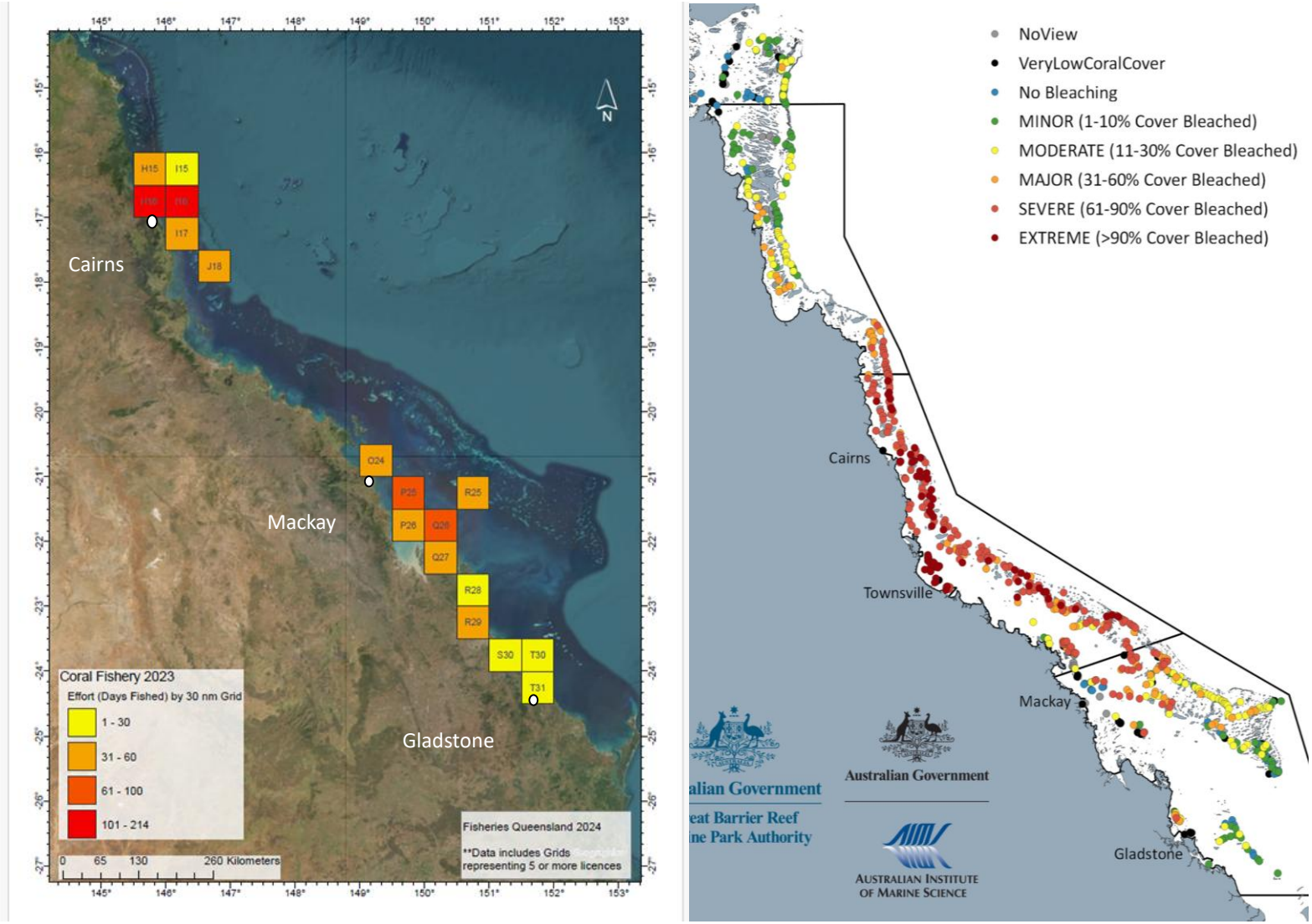

Figure 4: A comparison of coral fishery fishing effort (grid cells with more than 5 licenses only) and observed bleaching via aerial surveys during the 2022 mass bleaching event. Note that an absence of effort days on the fishing heat map does not mean that no fishing activity took place at that location, only that it may have been conducted by less than 5 licenses.

Chapter 3. Mitigating Climate Change impacts on the Great Barrier Reef

Introduction

Currently, Australia's climate policies and planned actions are inadequate to protect and conserve the Outstanding Universal Value of the Great Barrier Reef and are not aligned with limiting temperature increases to 1.5°C above pre-industrial levels. To correct this, Australia's climate policies must be significantly improved across both in-country and exported emissions. Australia has significant capacity to do this in a way that is good for the Australian economy, supports jobs across the country and reduces future climate impacts on the Great Barrier Reef.

Net Emissions Reduction

46 COM 7B.62, paragraph 8

Emissions reduction targets

The 2023 United Nations Emissions Gap Report issued a warning to all parties to the Paris Agreement that ***"failure to bring global GHG emissions in 2030 below the levels implied by current Nationally Determined Contributions will make it impossible to limit warming to 1.5°C with no or limited overshoot and strongly increase the challenge of limiting warming to 2°C. "***[xxvii] (our emphasis).

The 2024 United Nations Emissions Gap Report reiterated this urgent warning, making it clear that all parties, including Australia, must align their 2030 emissions reduction targets to keep open the possibility of stabilising warming to 1.5°C.

Australian Government
Whilst some very welcome progress has been made, to date Australia is not on track for 1.5°C aligned action, as claimed on page 19 of the Progress Report.

We reiterate the concern we raised in our analysis of the 2024 Progress Report: that at COP28 in December, the Australian Government specifically endorsed global goals for 1.5°C that require Australia to have a 2030 target of 53% below 2005 levels by 2030. This is a clear acknowledgement that the current 2030 emissions reduction target of 43% is not 1.5°C aligned, even if using the lowest possible standard for Australia of alignment with the global COP goals.[xxviii] Advanced economies like Australia have committed, and are required under the Paris Agreement, to set targets that are higher than the global goals, reflecting equity and the principal of common but differentiated responsibilities, commonly described as Australia's "fair share".[xxix]

A WWF-commissioned report by world leading IPCC experts about the latest and best available science shows Australia's current 2030 target is still inconsistent with limiting warming to 1.5°C. The report found that:

> *"A 1.5°C consistent pathway for Australia requires at least a 67% reduction relative to 2005 levels by 2030 and net zero by 2038: Such a pathway is consistent with limiting warming to 1.5°C with a 50% chance. Assuming Australia's share of the global emissions budget is a generous 0.97%, a net zero date before 2038 would be in line with a greater than 50% chance of staying below 1.5°C.* [xxx]

As the report notes, recent analysis shows that a 0.97% share of the global emissions budget is high given Australia's high GDP, and means Australia receives a higher per capita share than other nations.

The report finds that Australia must commit to cutting emissions to 67% below 2005 levels by 2030 and 90% below 2005 levels by 2035, at the absolute minimum, to meet our international obligations under the Paris Agreement. These targets represent a 50% chance of limiting warming to 1.5°C. Australia's legal duties, obligations, and opportunities to act on climate change to protect the OUV of the Great Barrier Reef require a higher standard of action than a 50/50 chance.

Given the pathway above is far less than Australia's fair share of global climate action, faster action of 75% below 2005 levels by 2030 would be more consistent with Australia's obligations to protect the OUV of the Great Barrier Reef. We note that Australia's current 2030 target, 43% below 2005 levels by 2030, has been described as a "floor not a ceiling".[xxxi]

We acknowledge that increasing Australia's decarbonisation action to align with 1.5°C is a challenge, however, Australia has multiple opportunities to improve the speed and scale of emissions reductions this decade. These opportunities can capture the additional economic, community and conservation benefits of faster action to decarbonise the economy.[xxxii] We note, for example, the Climateworks Centre released detailed decarbonisation scenario modelling in 2023 showing Australia can reduce emissions by 85% below 2005 levels by 2035 and net zero by 2039.[xxxiii]

Queensland Government

The Queensland Government's *Clean Economy Jobs Act 2024* (Qld Climate Act) is a very welcome commitment that increases the Australian Government's ability to set a strong 2035 emissions reduction target, given Queensland contributes approximately a third of Australia's domestic emissions. The Qld Climate Act contains a 75% below 2005 by 2035 emissions reduction target for Queensland. This is a very welcome step that is not yet in line with a 1.5°C pathway for Queensland but provides a strong baseline to work from to ratchet up ambition through to 2035. We welcome the strong framework for climate action set up by the Qld Climate Act, including that it will draw on expert advice from the Clean Economy Expert Panel.

We note the Act requires a review of the 2030 emissions reduction target by 31 December 2025. The 30% emissions reduction target has already been reached and should be uplifted to ensure Queensland is contributing its fair share to national decarbonisation efforts by 2030.

Unfortunately, the likelihood of the new Queensland Government meeting these targets is currently at significant risk given an election commitment to repeal the *Energy (Renewable Transformation and Jobs) Act 2024* which supports meeting the emission reduction targets, particularly through legislating appropriate renewable energy targets.[xxxiv] There is currently no plan to replace that Act or to set out a clear and credible alternative energy plan for Queensland. Energy experts have expressed concern that removing support for the renewable energy targets puts the ability to meet the climate targets at considerable risk.[xxxv] When coupled with recent decisions to pause approvals for onshore windfarms, these shifts in policy and disruption to Queensland's energy transition undermines the ability of the Queensland Government to meet Recommendation O6 of the 2022 Reactive Monitoring Mission report, adopted by the World Heritage Committee.

Transitioning to a Net Zero Future

As noted in the Progress Report, the Australian Government is developing a Net Zero Plan which will articulate how Australia will transition to a net zero economy by 2050. However, as stated above, Australia has the potential to reach net zero before 2040, which would significantly reduce the climate threat to the OUV of the property. More action is urgently needed, particularly because the Climate Change Authority has pointed out that emissions need to fall much faster to meet Australia's 2030 emissions reduction target.[xxxvi]

Renewable Energy

We fully support the steps the Australian and former Queensland Governments have taken on renewable energy to deliver greater emissions reduction ambition, particularly acceleration of investment in the roll out of renewables in Australia to meet the Queensland and Australian Government's current Renewable Energy Targets.[xxxvii] We also strongly welcome the level of renewables and clean energy ambition the previous Queensland Government committed to in the Queensland Energy and Jobs Plan. However, we reiterate the significant risks, outlined above, given the new Queensland Government does not support that plan and currently has not committed to a new plan to replace it.

Australia continues to support new and expanded fossil fuel development. Australia is currently the world's second largest exporter of total lifecycle emissions associated with fossil fuels and continues to cause foreseeable climate damage to coral reefs around the world from this globally leading greenhouse gas emissions contribution.[xxxviii] The best available science shows that continued and expanded fossil fuel development is inconsistent with Australia's obligations under the Paris Agreement to pursue efforts to limit global warming to 1.5°C above pre-industrial levels.[xxxix] The IPCC science and expert evidence makes it clear that any new and expanded fossil fuel approvals are causing foreseeable harm to coral reefs in Australia and around the world, by causing global temperature rise to breach the 1.5°C temperature limit.[xl]

Over the last twelve months Australian and Queensland Governments have continued to approve new fossil fuel developments and subsidise and facilitate the continued expansion of fossil fuel infrastructure.[xli] For example, last year, the Australian Government approved a significant contribution to further climate damage of oceans and coral reefs via seven coal mine expansions that will generate more than 2.15 billion tonnes of additional carbon dioxide across their lifetimes. Two of these mines are in Queensland.[xlii] The emissions from these new mines will harm the OUV of the Great Barrier Reef and coral and marine ecosystems globally. These decisions demonstrate that Australia is not doing all that it can to the utmost of its resources to protect the OUV of the Great Barrier Reef and is falling well short of its duties under the World Heritage Convention.[xliii]

Australia has a significant opportunity to replace the export of polluting goods with renewable energy exports, making Australia a renewable energy superpower.[xliv] Doing so would also drive down Australia's in-country emissions and lead to further opportunities for increasing the 2030 and 2035 emissions reduction targets by avoiding the significant Scope 1 and Scope 2 emissions of new fossil fuel projects. Research from consulting group Accenture developed in a partnership with business and union leaders alongside environmental NGOs notes that with the right investment Australia can reach a globally leading position in clean exports.[xlv] It notes that growth in five priority clean exports in Australia could provide AUAU$314 billion p.a. in revenue by 2040.

Currently, Australia is not meeting its obligations under the World Heritage Convention to protect the OUV of the Great Barrier Reef from ongoing climate damage. Significantly more ambition and action are required.

Climate adaptation programs

We continue to support ongoing investment in the Crown-of-Thorns Starfish (COTS) Control Program. The COTS program makes a very important measurable impact on reducing COTS infestations on priority coral reefs.

The Reef Restoration and Adaptation Program (RRAP) has shown that it is *technically possible* to produce heat tolerant corals and to deploy those safely at a large scale in strategic locations where corals bred in captivity could grow and spread their genes in the wild. We note that there are still questions about the long-term efficacy of this resilience intervention. We understand that AIMS is currently negotiating with GBRMPA to obtain permits for deployment in the Marine Park and World Heritage property this year.

The Reef Blueprint 2030 is another vague and disappointing document from the Reef Authority. It is not surprising that all that can be said about it in the Progress Report is that it is being implemented through the Reef Authority's corporate planning process.

Chapter 4. Impacts of Extreme Weather Events in 2023-24

Introduction

Chapter 4 of the Progress Report is an accurate summary of the impact of extreme weather events – mass coral bleaching and two tropical cyclones - on the Great Barrier Reef during the summer of 2023-24. The Progress Report includes monitoring findings up to June 2024 and preliminary data up to October 2024. Below, we provide more up-to-date data from the Australian Institute of Marine Science website which divides the Great Barrier Reef into 11 sectors for monitoring purposes. Some of the monitoring results are "complete" and some are "in progress". We present them in those categories, downloaded on 10 February 2025.[1]

COMPLETE

Cape Grenville: the trend in hard coral cover is down from 50.4% in 2024 to 44.8% in 2025. (This is a relative decline of 11% in coral cover.)

Capricorn Bunker: the trend in hard coral cover is down from 56.2% in 2024 to 33.1% in 2025. This is a relative decline of 41% in coral cover. The mass coral bleaching event, storm swell, and coral disease have caused **the single largest annual decline in hard coral cover for this sector in 39-years of AIMS' monitoring**.

Cooktown / Lizard Island: the trend in hard coral cover is down from 31.5% in 2024 to 21.0% in 2025. (This is a relative decline of 33% in coral cover.) The 2024 mass coral bleaching event has caused **the single largest annual decline in sector-wide hard coral cover since surveys began**.

Princess Charlotte Bay: the trend in hard coral cover is down from 38.5% in 2024 to 29.7% in 2025. (This is a relative decline of almost 23% in coral cover.)

IN PROGRESS

Cairns: the trend in hard coral cover is down from 34.4% in 2024 to 22.1% in 2025. (This is a relative decline of nearly 36% in coral cover.) The combined impacts of the 2024 mass coral bleaching event and Tropical Cyclone Jasper produced **the largest annual sector-wide decline hard coral cover since monitoring began**. Surveys are continuing.

Cape Upstart: coral cover in 2024 was 25.2%. 2025 results are not yet available. Surveys are continuing.

Innisfail: the trend in hard coral cover is down from 19.6% in 2024 to 17.0% in 2025. (This is a relative decline of 13% in coral cover.) Surveys are continuing.

Pompey: coral cover in 2024 was 41.6%. Coral bleaching was recorded on all surveyed reefs, although the level of bleaching varied within and among reefs, ranging from 0% to 100%. Surveys are continuing.

[1] We include our calculations of "relative declines" in brackets, according to AIMS's "real declines", except for the Capricorn Bunker figure of a 41% relative decline which is included on the AIMS website.

Swain: the trend in hard coral cover is down from 27.0% in 2024 to 20.5% in 2025. (This is a relative decline of 24% in coral cover.) Declines were due to the 2024 mass coral bleaching event, storm swell, and coral disease. Surveys are continuing.

Townsville: coral cover in 2024 was 32.7%. 2025 results are not yet available. Surveys are continuing.

Whitsunday: coral cover in 2024 was 39.3%. Coral bleaching was recorded on all surveyed reefs, although the level of bleaching varied within and among reefs, ranging from 0% to 90%. Surveys are continuing.

The Unfolding 2024-25 Coral Bleaching Event

It is extremely concerning that there is a potential mass coral bleaching event unfolding on the Great Barrier Reef, which would be the sixth since 2016. The following data were downloaded from the NOAA Coral Reef Watch website on 17 February 2025. The property is divided into four regions and the latest data is presented for 15 February 2025. Table 1 also refers to the Reef Authority's coral bleaching categories, with Category 5 being the most severe:

Table 1: Degree Heating Weeks for the four NOAA regions and Reef Authority bleaching categories

-**Region**	**NOAA Degree Heating Weeks**	**GBRMPA Coral Bleaching Category**	**GBRMPA Colony Response**
Far Northern	13.04	4	•Full bleaching of many types •Mortality of many types
Northern	8.72	3	•Partial to full bleaching of many types •Mortality of some coral types
Central	7.13	2	•Partial to full bleaching of some coral types •Mortality of few coral types
Southern	4.51	2	•Partial to full bleaching of some coral types •Mortality of few coral types

Compared to the coral bleaching event of 2023-24, sea surface temperatures are higher earlier this year and are affecting the far northern Great Barrier Reef more than the southern GBR, which had the highest sea surface temperatures of the four regions last year. Last summer's sea surface temperatures peaked in the southern GBR from 8 March to 27 March, so there is still well over a month for heat stress to accumulate before the risk of severe coral bleaching declines this year. As a result, the above bleaching categories for each region may change.

In addition to elevated sea temperatures, heavy rainfall across north Queensland has caused major flooding. The slow-moving nature of the tropical low and monsoon trough has resulted in saturated lands along much of the northern coastal catchments. The Reef Authority has warned that freshwater intrusion into the Marine Park may impact seagrass meadows and cause coral bleaching on some inshore coral reefs.

While the cloud cover may provide some temporary cooling relief to the Reef, sea surface temperatures are expected to remain above average during the remaining summer.

Chapter 5. Next Steps in Adaptive Management of the Reef

Outlook Report

It is concerning that the Progress Report does not mention the 2024 Great Barrier Reef Outlook Report until p.32. This report is required by law to be prepared by the Reef Authority every five years. Its purpose is to provide an accountable and transparent assessment of the overall performance of measures to protect and manage the Reef and to underpin future decision making for the long-term protection of the Reef.

The 2024 report states: "The Outlook Report is a key input to Reef management, the review of the *Reef 2050 Long-Term Sustainability Plan* (Reef 2050 Plan) and reviews of zoning plans. It also plays a significant role in informing Australia's reports to the World Heritage Committee addressing the state of conservation of the Great Barrier Reef World Heritage Area."

Given the only mention of the Outlook Report in the 2025 Progress Report is on p.32, it is unclear how the Outlook Report is playing a significant role in informing Australia's report to the WHC this year. We hope the Outlook Report plays a significant role next year when Australia is to prepare a full State of Conservation report to the World Heritage Centre. In the meantime, we attach a summary, previously sent to UNESCO and IUCN on 29 November 2024, of the grade and trend of each World Heritage value identified in the Retrospective Statement of OUV of the Reef (Appendix 2).

Next Steps in Reporting

The focus of this chapter is public reporting and knowledge systems. While these are important, we believe "next steps in adaptive management" should extend beyond monitoring, data analysis and reporting. We propose two next steps that are vital to boost the resilience of the World Heritage property and urge UNESCO and IUCN to consider these as they prepare their State of Conservation report and draft decision for 47COM.

Emergency Management Response Plan

We acknowledge that AIMS and the Reef Authority have undertaken effective planning and monitoring of coral bleaching events. However, despite five coral bleaching events in the last nine years, and another currently unfolding, there has been no emergency response to implement immediate changes to management.

With global warming continuing to accelerate, there is an urgent need to boost the resilience of the Reef by implementing protection measures during a severe coral bleaching or extreme weather event.

AMCS and WWF have drafted an Emergency Response Plan which we submitted to the federal Environment Minister's Office in early February (Appendix 3). The plan proposes the setting of trigger levels for an emergency response, identifying critical areas to protect (for example key replenishment reefs, climate refugia reefs), identifying which impacting uses to remove either temporarily or permanently, establishing a science-based process to develop ecological trigger points that confirm adequate recovery is underway, effective communication and engagement, and identifying delivery mechanisms and financial assistance or adjustment.

The Plan is consistent with the World Heritage Committee decision 46 COM 7B.61 paragraph 3 "*that securing the resilience of the property is of essential importance to give it the best chance to withstand the effects of climate change".*

Strengthen the 2003 Zoning Plan

The 2003 Zoning Plan provides the backbone of the Great Barrier Reef's ecosystem-wide protection. The plan established the world's largest network of no take zones which comprised 33.5% of the Marine Park. Queensland's Great Barrier Reef Marine Park for adjacent inshore areas which are State jurisdiction complements the Commonwealth plan. These plans were designed co-jointly, utilising the best available science and knowledge at that time. They have been in place for over 20 years.

Over the last two decades, escalating pressures, which are well documented in consecutive Outlook Reports, have significantly impacted the Reef's health. Coastal development has expanded and intensified, especially south of Cooktown, with consequent declines in water quality, loss of critical coastal habitat such as wetlands, more frequent and more extensive Crown of Thorns Starfish infestations, and increasing in-park use (shipping, boating and fishing). The greatest threat to the Reef is climate change, driving coral bleaching, acidification and intensifying cyclones.

In the context of the escalating pressures and threats, there is an *urgent* and compelling case for the Australian Government to evaluate comprehensively and, if warranted, strengthen the existing 2003 Zoning Plan to ensure that it can best support the most substantial ecosystem resilience.

The Great Barrier Reef Marine Park Act 1975 allows for amendment of the zoning plan provided it has been in operation for at least seven years. Goal 2.2 of the recent Reef Blueprint 2030 report states, "Review and, if necessary, update the Great Barrier Reef Marine Park Act 1975, the Zoning Plan 2003, and key policies (e.g. Reef interventions policy), to ensure they will continue to provide for the long-term protection and conservation of the environment, biodiversity, and heritage values of the Great Barrier Reef Region as the climate changes."

WWF and AMCS believe an independent review, undertaken by an independent expert panel, will provide the best possible outcome for the Reef. The review report would lead to a process to strengthen the effectiveness of the 2003 Zoning Plan to support ecosystem resilience in the context of likely climate scenarios over the next 20 years.

Chapter 6. Supplement: Working with Traditional Owners on the Great Barrier Reef

WWF-Australia has long term relationships with many Traditional Owner groups along the reef coast including a partnership with the Girringun Aboriginal Corporation for the last 15 years. We think it's most appropriate for the Reef Traditional Owner Taskforce to respond to the information provided in Chapter 6. One issue that has been raised frequently with WWF-Australia and is unresolved is the enforcement and compliance rights of Traditional Owners on the Great Barrier Reef.

The following information is provided by the Girringun Aboriginal Corporation:

> *"To enable Traditional Owners to fulfil their cultural responsibilities in caring for their Sea Country, they need effective mechanisms to enforce compliance within their territories. Indigenous Rangers are already actively managing Sea Country in the Great Barrier Reef daily and could do so more effectively if they had the authority to enforce compliance with legislation for Indigenous Rangers who may wish to. Amendments to relevant Commonwealth and State legislation could extend enforcement powers to Indigenous Rangers, allowing them to manage Sea Country more effectively.*
>
> *Enforcement powers are vitally important for Indigenous Rangers Traditional owners within the Great Barrier Reef (GBR) hold cultural responsibilities to care for their Sea Country as they have done for tens of thousands of years across deep time and back to the stories of Dreaming. Through Indigenous Rangers, Traditional owners are able to act on these cultural responsibilities, and actively manage and care for their Countries. Many Indigenous Rangers within the GBR aspire to offer services to regulatory agencies on a fee-for-service basis. This requires the capacity to ensure compliance with the legislation and regulations of the agency to which services are to be provided. Whilst some Indigenous rangers have participated in a Certificate IV course in regulatory compliance, more staff will need the training. Also, Indigenous Organisations that host Indigenous Compliance Rangers need to have in place the necessary compliance management model, processes and systems that align with the methods used by the agencies using the services. To build specialist Compliance Management Capacity within Indigenous Organisations, requires external support and a funding stream. "*

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[i] Letter by Ian Poiner, Chair, Great Barrier Reef Marine Park Authority

[ii] Letter from Australia's Minister for Environment and Water, the Hon. Tanya Plibersek to UNESCO Director-General, dated 25 May 2023

[iii] Meinshausen, M. and Nicholls, Z., 2023, *Updated assessment of Australia's emission reduction targets and 1.5°C pathways.* Independent expert report commissioned by WWF-Australia, https://www.climate-resource.com/reports/wwf/20230612_WWF-Aus-Targets.pdf

[iv] Great Barrier Reef Marine Park Authority (2024). Great Barrier Reef Outlook Report 2024. Reef Authority, Townsville.

[v] Waterhouse J, Pineda M-C, Sambrook K, Newlands M, McKenzie L, Davis A, Pearson R, Fabricius K, Lewis S, Uthicke S, Bainbridge Z, Collier C, Adame F, Prosser I, Wilkinson S, Bartley R, Brooks A, Robson B, Diaz-Pulido G,

Reyes C, Caballes C, Burford M, Thorburn P, Weber T, Waltham N, Star M, Negri A, Warne M St J, Templeman S, Silburn M, Chariton A, Coggan A, Murray-Prior R, Schultz T, Espinoza T, Burns C, Gordon I, Devlin M (2024a) 2022 Scientific Consensus Statement: Conclusions. In Waterhouse J, Pineda M-C, Sambrook K (Eds) 2022 Scientific Consensus Statement on land-based impacts on Great Barrier Reef water quality and ecosystem condition. Published by C2O Consulting on behalf of the Australian Government's Department of Climate Change, Energy, the Environment and Water (DCCEEW) and the Queensland Government's Office of the Great Barrier Reef and World Heritage (OGBRWH).

[vi] Alluvium (2016). Costs of achieving the water quality targets for the Great Barrier Reef by Alluvium Consulting Australia for Department of Environment and Heritage Protection, Brisbane.

[vii] Coggan A, Jarvis D, Emmerling M, Schirru E, Molinari B (2024) Question 7.1 What is the mix of programs and instruments (collectively and individually) used in Great Barrier Reef catchments to drive land management practices for Great Barrier Reef water quality benefits and how effective are they? In Waterhouse J, Pineda M-C, Sambrook K (Eds) 2022 Scientific Consensus Statement on land-based impacts on Great Barrier Reef water quality and ecosystem condition. Commonwealth of Australia and Queensland Government.

[viii] Great Barrier Reef Water Science Taskforce report: https://www.qld.gov.au/__data/assets/pdf_file/0027/109539/gbrwst-finalreport-2016.pdf

[ix] Queensland Department of Natural Resources, Mines and Energy. 2020 Modelling improved land management practices – Management scenario modelling of innovative (lowest risk) to minimum standard (moderate risk) practices. Technical Report for Office of the Great Barrier Reef 2020, Brisbane, Queensland.

[x] https://theconversation.com/labors-dumping-of-australias-new-nature-laws-means-the-environment-is-shaping-as-a-key-2025-election-issue-248872

[xi] Eco-Markets Australia Annual Report 2023-24: https://eco-markets.org.au/wp-content/uploads/2024/12/Eco-Markets-Australia-Annual-Report-2023-24.pdf

[xii] Based on the 10 million QLD Government investment to establish the Reef Credit Scheme; excluding the use of public funds to buy back Reef Credits.

[xiii] Waltham, N. J., Wegscheidl, C. J., Smart, J. C. R., Volders, A., Hasan, S., Waterhouse, J. (2017) Scoping land conversion options for high DIN risk, low-lying sugarcane, to alternative use for water quality improvement in Wet Tropics catchments. Repot to the National Environmental Science Program. Reef and Rainforest Research Centre Limited, Cairns (141pp.)

[xiv] Great Barrier Reef Marine Park Authority 2024, Great Barrier Reef Outlook Report 2024, Reef Authority, Townsville.

[xv] Sawfish and River Sharks Multispecies Recovery Plan, Commonwealth of Australia 2015

[xvi] Salini J, McAuley R, Blaber S, Buckworth R, Chidlow J, Gribble NA, Ovenden J, Peverell S, Pillans RD, Stevens JD, Stobutzki I, Tarca C, Walker TI (2007) Northern Australian sharks and rays: the sustainability of target and bycatch species, phase 2 | FRDC. Project No. 2002/064. Fisheries Research and Development Corporation and CSIRO Marine and Atmospheric Research, Australia. Available at https://www.frdc.com.au/project/2002-064 [Verified 24 June 2022]

[xvii] AJ Courtney, BL Schemel, R Wallace, MJ Campbell, DG Mayer and B Young (2010). Reducing the impact of Queensland's trawl fisheries on protected sea snakes. FRDC Project No. 2005/053

[xviii] https://www.dcceew.gov.au/sites/default/files/documents/qld-east-coast-otter-trawl-letter-daf-2021.pdf

[xix] Pierre, J.P., Dunn, A., Snedeker, A., Wealti, M. (2022) How much is enough? Review optimization methods to deliver best value from electronic monitoring of commercial fisheries. Pew Project: 2021-IF-02

[xx] Pierre, J.P., Dunn, A., Snedeker, A. *et al.* Optimising the review of electronic monitoring information for management of commercial fisheries. *Rev Fish Biol Fisheries* 34, 1707–1732 (2024). https://doi.org/10.1007/s11160-024-09895-7

[xxi] https://www.frdc.com.au/project/2023-009

[xxii] Pratchett MS (2024) Localised status assessment for specialty coral harvest species on the Great Barrier Reef, Department of Climate Change, Energy, the Environment and Water (DCCEEW)

[xxiii] Pratchett MS (2024) Characterising species composition of Acropora corals harvested by the Queensland Coral Fishery (QCF), Report on scientific program to independently characterise species composition for Queensland Department of Agriculture and Fisheries

[xxiv] Pratchett, M.S., Caballes, C.F., Newman, S.J. et al. Bleaching susceptibility of aquarium corals collected across northern Australia. Coral Reefs 39, 663–673 (2020). https://doi.org/10.1007/s00338-020-01939-1

[xxv] Great Barrier Reef Marine Park Authority, Australian Institute of Marine Science, and CSIRO, Reef snapshot: Summer 2023-24, Great Barrier Reef Marine Park Authority, Townsville.

[xxvi] https://apps.aims.gov.au/reef-monitoring/sector/CB/manta

[xxvii]United Nations Environment Programme (2023). Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again). Nairobi. https://doi.org/10.59117/20.500.11822/43922 XVI and United Nations Environment Programme (2024). Emissions Gap Report 2024: No more hot air … please! With a massive gap between rhetoric and reality, countries draft new climate commitments. Nairobi. https://doi.org/10.59117/20.500. 11822/46404 page XII.

[xxviii] See the COP 28 outcomes on targets – see Para 27. *"…recognizes that limiting global warming to 1.5 °C with no or limited overshoot requires deep, rapid and sustained reductions in global greenhouse gas emissions of 43 per cent by 2030 and 60 per cent by 2035* ***relative to the 2019 level*** *and reaching net zero carbon dioxide emissions by 2050;"* (our emphasis). Australia supported the COP28 outcome and specifically endorsed the global -43% and -60% numbers, both in our national capacity and as chair of the Umbrella Group of non-EU advanced economies. Australia's current commitments apply a 2005 base year, not the 2019 base that the COP28 call refers to. **The global cuts Australia endorsed at COP28 correspond to 53% below 2005 levels by 2030 and 67% off by 2035, if converted to a 2005 baseline for Australia.** This global target is below the minimum Australia must commit to, to comply with Paris Agreement requirement that NDCs are our highest possible ambition and reflect our fair share of commitment (Article 2(2) and Article 4(3)).

[xxix] Paris Agreement, Article 2(2), https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf.

[xxx] Dr Z Nicholls and A/Prof M Meinshausen, June 2023, available online at 20230612_WWF-Aus-Targets (climate-resource.com).

[xxxi] https://minister.dcceew.gov.au/bowen/speeches/annual-climate-change-statement-parliament#:~:text=There%20are%20some%20who%20call,43%20per%20cent%20target%20requires.

[xxxii] See for example WWF-Australia's energy transformation policy recommendations in our Renewable Superpower Scorecard #3 available online at https://www.wwf.org.au/what-we-do/climate/renewables/resources/renewable-superpower-scorecard-dec-2022. See also the report from Beyond Zero Emissions which demonstrates that an 81% emissions reduction is achievable by 2030 with an ambitious rollout of cleantech over the next five years https://bze.org.au/research_release/deploy/.

[xxxiii] Climateworks Centre (2023) *Climateworks Centre decarbonistion scenarios 2023*, https://www.climateworkscentre.org/scenarios2023

[xxxiv] https://www.abc.net.au/news/2025-01-31/queensland-government-energy-future-questions-remain/104875906

[xxxv] https://www.afr.com/policy/energy-and-climate/qld-hits-pause-on-wind-farms-and-big-miners-are-among-those-worried-20250123-p5l6md#:~:text=Premier%20David%20Crisafulli%20has%20said,state%2Downed%20coal%20power%20stations

[xxxvi] https://www.abc.net.au/news/2024-12-09/australias-climate-change-policy-problem-in-charts/104689682

[xxxvii] See for example the capacity investment scheme announcement, which is an important step to ensure the Australian government can meet their existing renewable energy targets for 2030 - https://www.dcceew.gov.au/energy/renewable/capacity-investment-scheme#:~:text=Capacity%20Investment%20Scheme%20scope%20and,representing%20%2452%20billion%20in%20investment

[xxxviii] https://www.humanrights.unsw.edu.au/sites/default/files/documents/2024%20Escalation%20Report%20%5Bv7%5D.pdf;.

[xxxix] IPCC, 2023: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, 184 pp., doi: 10.59327/IPCC/AR6-9789291691647. Paragraph B.5, Page 19: *"Projected CO2 emissions from existing fossil fuel infrastructure without additional abatement would exceed the remaining carbon budget for 1.5°C (50%) (high confidence)."* https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf.

[xl] Trout et al, May 2022, Environmental Research Letter "Existing fossil fuel extraction would warm the world beyond 1.5°C" available online at https://iopscience.iop.org/article/10.1088/1748-9326/ac6228/meta and Welsby et al, 2021, Nature "Unextractable fossil fuels in a 1.5°C world" available online at https://www.nature.com/articles/s41586-021-03821-8.

[xli] For example, we recommend reviewing the information in The Australia Institute's "Coal Mine Tracker" platform for the latest information, based on Australian Government data, of current and ongoing coal mine approvals by the Australian government. This platform is available for viewing here - https://australiainstitute.org.au/initiative/coal-mine-tracker/. For gas expansion approvals, see for example https://www.abc.net.au/news/2024-07-23/government-approves-more-gas-exploration-permits/104131464

and https://www.theguardian.com/australia-news/article/2024/jun/26/senex-energy-tanya-plibersek-coal-seam-gas-project-gina-rinehart. For Queensland fossil fuel expansion approvals, see for example https://statements.qld.gov.au/statements/101771.

[xlii] https://www.theguardian.com/environment/2024/oct/01/australia-coalmine-decision-akin-to-drowning-its-pacific-neighbours-tuvalu-climate-minister-says; https://theconversation.com/talk-isnt-enough-pacific-nations-say-australia-must-end-new-fossil-fuel-projects-237749 ; https://www.theguardian.com/environment/2024/dec/19/albanese-government-coalmine-expansions-approved-boggabri-caval-ridge-horse-pit-lake-vermont-meadowbrook-vulcan-south

[xliii] A requirement of the World Heritage Convention, Article 4 "*Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 and situated on its territory,* ***belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources*** *and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain."* (our emphasis), https://whc.unesco.org/en/conventiontext/

[xliv] https://www.wwf.org.au/news/news/2022/act-now-to-create-a-renewable-export-industry#gs.qq3k6z and https://reneweconomy.com.au/renewable-exports-worth-more-than-coal-and-gas-will-create-more-jobs/

[xlv] The research is available online here - Sunshot - Achieving Global Leadership in Clean Exports https://wwf.org.au/what-we-do/renewables-nation/climate-resources/