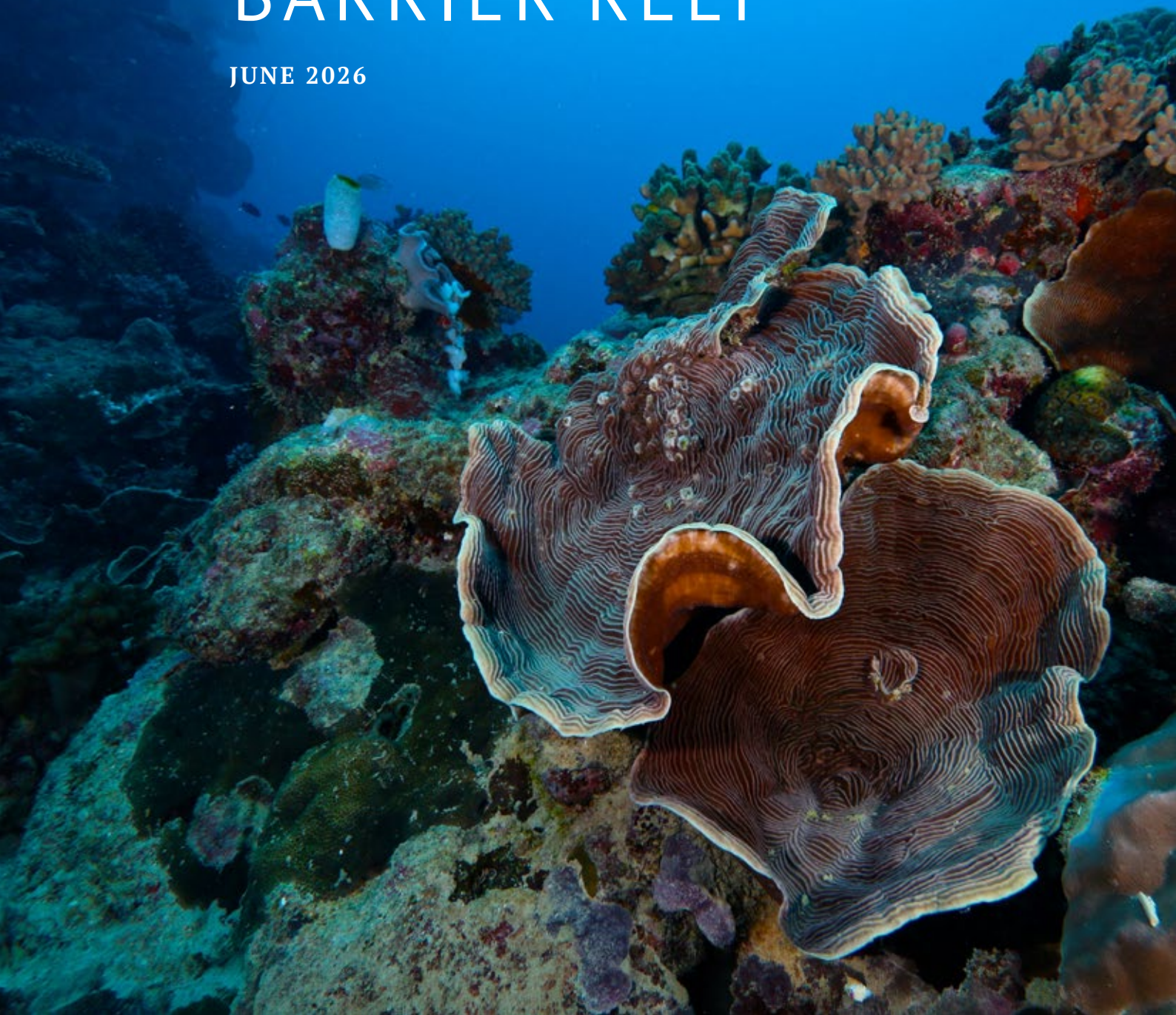
Australian Climate & Biodiversity Foundation

MUDDY MESS – DEFORESTATION AND THE GREAT BARRIER REEF

JUNE 2026



Australian Climate & Biodiversity Foundation

Table of contents

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A Muddy Mess: Foreword

The Great Barrier Reef is a natural wonder, universally loved by Australians. Older than human memory and visible from space, it is home to nine thousand known species, six of the seven marine turtles on the planet, and an unbroken line of First Nations custodianship that long pre-dates the Australian state. In pure economic terms it is also the fifth largest employer in the country[1].

And it is being buried in mud.

Every year, more than 4.9 million tonnes of fine sediment pour onto the inshore Reefs from just two of its catchments[2]. This is the equivalent of 400,000 dump trucks of dirt, dumped on coral reefs that took millennia to grow. The single largest source of that mud is land clearing and soil erosion for cattle grazing. Forty per cent of all the clearing in Queensland happens in catchments that drain to the Reef. The science on this has been settled for years[3].

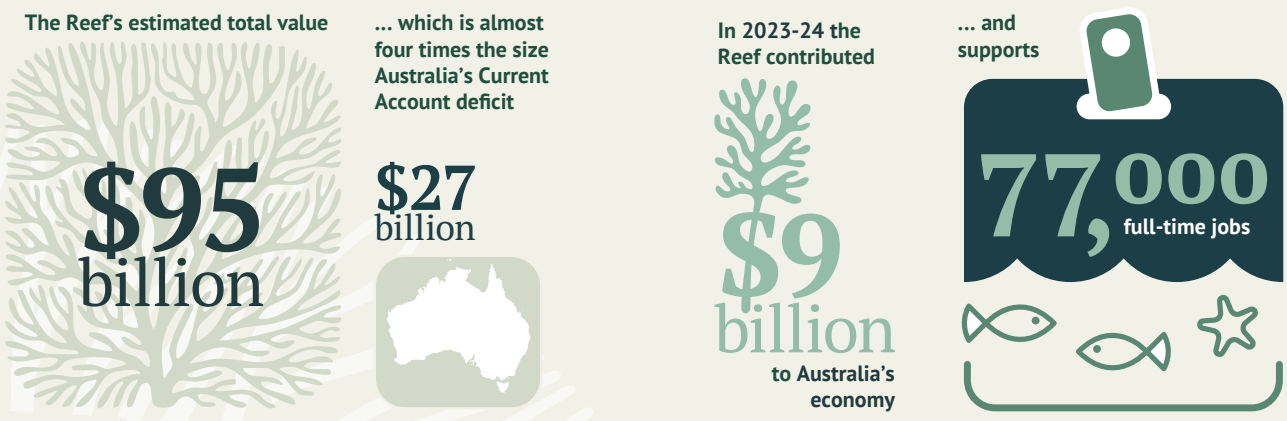
For more than a decade, Australia has told the world it has the problem in hand. We have committed nearly $1.8 billion since 2014 to Reef water quality[4]. We have made plans, set targets, missed them, and set them again, extending the deadline three times since 2013. The most recent Reef Water Quality Report Card rates Reef water quality as Poor for fine sediment reduction, and Very Poor for riparian extent[5].

The clearing has continued; the sediment has flowed, and the Reef has slipped further toward the point of no return.

However, this report is not a retreat into despair. Because for the first time in a generation, the policy tools to actually solve this problem exist. What is required is the political will.

In December 2025, the Albanese Government passed reforms to the Environment Protection and Biodiversity Conservation Act that finally closed a loophole that allowed land clearing for the cattle industry to escape federal scrutiny since 2000. Now, for the first time, most clearing in Reef catchments is subject to Australian law. Proposals to clear forests and woodlands older than 15 years old and/or within fifty metres of a waterway in a Reef catchment must be referred for assessment. The architecture of a real protection regime is, at last, on the statute books.

From mid-2026, a new Environment Protection Agency commences operations. This is an independent body with the authority and the independence to enforce the law without political interference. However, it appears that the law is yet to catch up with reality. A recent Senate Estimates hearing revealed that despite hundreds of landholders contacting the department with land clearing queries, only a small handful reached formal assessment.



SUSPENDED SEDIMENT FLOWING DOWN THE LOWER BURDEKIN RIVER. 2019. MATT CURNOCK

The opportunity to fix these problems exists, and the Australian and Queensland Governments can demonstrate to all Australians and the international community that they take the threats posed to the Reef by land clearing seriously.

The first steps should be for the two Governments to work together to a) assess the impacts of hundreds of individual clearing proposals and b) create a catchment-based decision-making system, overseen by the new National Environment Protection Agency to improve water quality in the Reef.

In July 2025, the World Heritage Committee met in Paris and highlighted the failure of the Australian and Queensland Governments to meet promised water quality targets and called for action to protect remnant and high value regrowth forests in the catchments emptying into the Great Barrier Reef.

The clock is ticking. In just six to seven weeks, at the next meeting of the World Heritage Committee in Busan, South Korea, the world will judge whether Australia is serious about protecting its greatest natural asset.

The Reef does not need another plan. It needs the laws we already have to be enforced. That is the choice this report puts to the Australian and Queensland Governments, and to the country.

The Problem

Sediment from deforestation remains the major unsolved impact on Great Barrier Reef water quality. Individual decisions by thousands of landholders to clear forests for pasture have combined to dump millions of tonnes of mud onto inshore reefs.

This issue has drawn international attention. The World Heritage Committee, meeting on 19 July, has identified land clearing as a key pressure on the Reef. Its upcoming draft decision will be shaped by whether Australia's new EPBC laws can effectively address these concerns.

Newly introduced laws offer a potential fix by requiring assessments for clearing within 50-metre riparian buffers and for clearing trees older than 15 years that serve as threatened species habitat. These laws also grant powers to manage cumulative clearing impacts and halt illegal clearing through stop-work orders.

However, these laws are not currently being effectively enforced. Even when the National Environment Protection Agency commences operations, it won't achieve its designated goal to protect the GBR without active cooperation from the Queensland Government or a coordinated, catchment-wide strategy from the Commonwealth.

The Way Forward

To meet sediment targets in the Reef Water Quality Strategy, the Commonwealth must directly confront the cumulative impacts of land clearing. The two governments have missed their joint 2025 water quality targets despite allocating nearly $1.8 billion between 2013 and 2030, leaving the reef with a Poor rating for sediment runoff.

To reverse this trend, the Commonwealth needs to implement a comprehensive, whole-of-catchment plan. This strategy should feature clear maps designating strict no-go zones where clearing is entirely banned, supported by enforceable ecosystem restoration targets.

Once established, these catchment-wide standards can be rigorously enforced using the expanded powers of the Environment Protection and Biodiversity Conservation Act.

A muddy mess – Deforestation, World Heritage and the Great Barrier Reef

Continued clearing of forests within the catchments of the Great Barrier Reef has consistently been identified as one of the key threats to the Reef's survival[6]. While warming waters created by climate change existentially threaten the Reef, the water quality impacts of sediment and nutrient pollution fundamentally undermine the ability of the Reef to recover and survive.

Australia is one of the top deforesting countries in the world, with the epicentre of this forest loss being central Queensland. 40% of all clearing in Queensland occurs in the Great Barrier Reef catchments, creating immediate impacts on wildlife, but also setting in train sediment plumes that repeatedly smother coral and sea grass on the Great Barrier Reef.

From 2018-23, 856,744 hectares of forests and woodlands were cleared within the Reef catchments, with 84% of this cleared for grazing.[7]

Clearing for cattle grazing is concentrated in the Burdekin and Fitzroy catchments. Between them they dump more than 4.9 million tonnes of fine sediment on the Reef each year.[8] This is the equivalent of 400,000 dump truck loads of soil.[9]

The latest Great Barrier Reef Outlook Report (2024), produced by the Great Barrier Reef Marine Park Authority, states,

"The region's current outlook remains one of continued deterioration".

"Resilience-based management and effective interventions at the right scales may buy time for the Reef while global efforts to decrease greenhouse gas are effectively implemented"

"Meeting water quality improvement targets is a crucial step towards a more resilient Reef. Poor water quality continues to affect many coastal and inshore areas of the Reef"

Over the last decade, with the World Heritage Committee turning its attention to the health of the Reef, many government reports and billions of taxpayer dollars have been committed to addressing the health of the Reef. Since 2014 Australian governments have committed nearly $1.8 billion to addressing water quality on the Reef[10], yet the root driver of the problem –the mud, silt and turbidity that flow into the Reef after clearing events – continues[11].

In November 2025 the Australian Parliament passed reforms to our national environment laws, the Environment Protection and Biodiversity Conservation Act. The original laws, in word and practise, exempted agricultural clearing from federal oversight.

The Albanese Government reforms limited this exemption, making all clearing of forests more than 15 years old subject to federal laws, as well as clearing within 50 m of any waterway or wetland in the Great Barrier Reef catchments. And yet reports of continued clearing of forests in the Great Barrier Reef have continued.

The Australian Environment Minister wrote to the World Heritage Committee in January 2026 saying he had addressed the water quality problem with the new laws, yet action has not been taken to shift from business as usual. Like all the reports and investment before it, the changes to the law will not deliver for the Reef unless they are applied immediately and thoroughly and recognise the accumulated impact of hundreds of individuals' decision to clear forests and woodlands each and every year which lead to the clearing of hundreds of thousands of hectares of forests and woodlands.

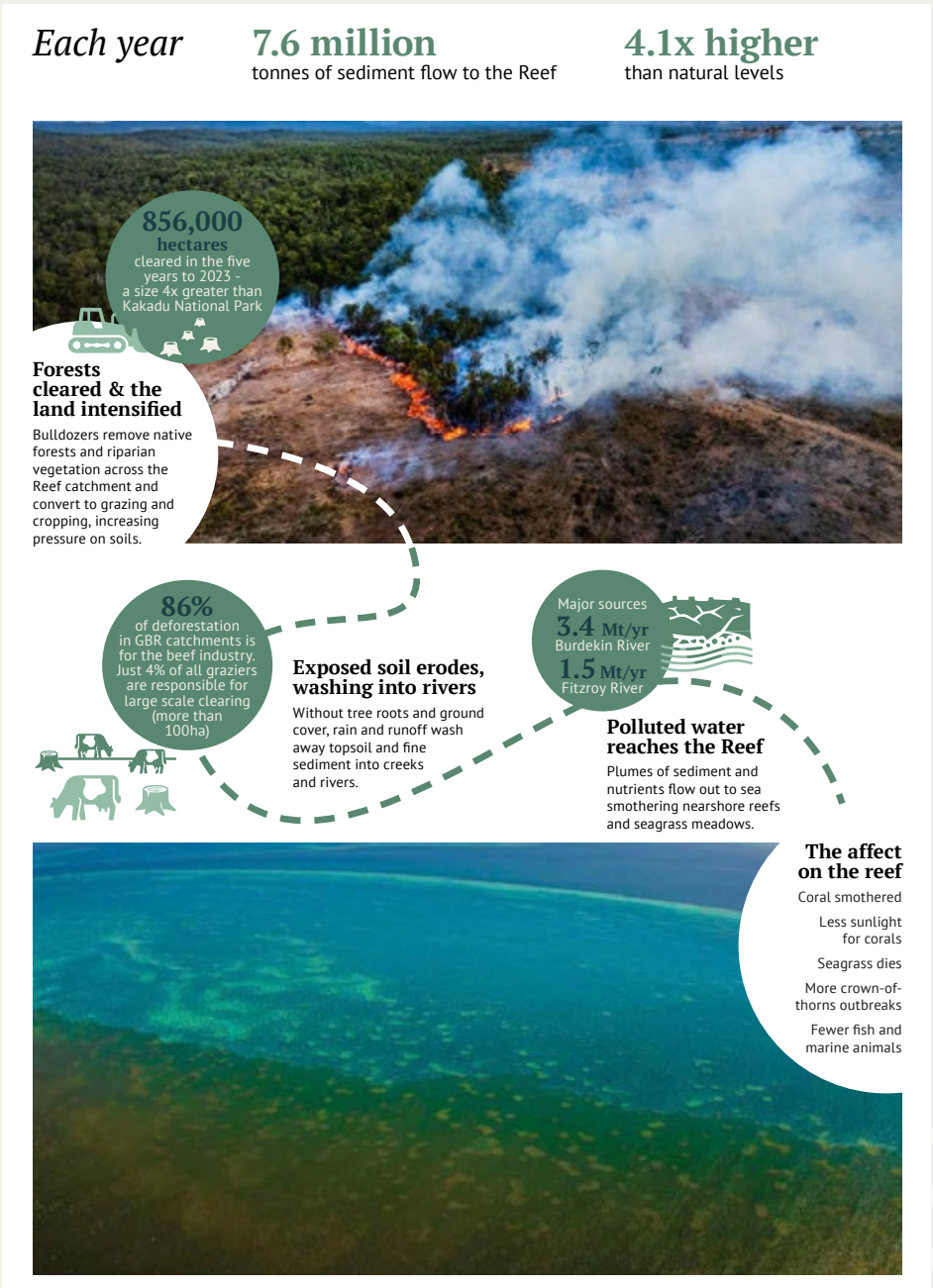
This reform also has implications for Australia's beef retailers – including Woolworths, Coles, McDonald's and Hungry Jacks. Without a comprehensive plan and enforcement of the new laws, the risk remains these companies may now have illegality embedded in their supply chains. Retailers need to play their part in protecting this global icon by addressing their compliance responsibilities created by the change of law, as well as implementing their corporate commitments to ending deforestation in supply chains.

Solution

The Australian Environment Minister must address land-based impacts on the Great Barrier Reef by effectively implementing federal law – assessing the accumulated impacts on water quality of large-scale land clearing on all vegetation over 15 years old across the Reef catchments, as well as ensuring all the protection and conservative management of vulnerable stream sides, hills and gullies are off limits to clearing. The new laws provide specific provisions that allow for this.

Federal environment law – the Environmental Protection and Biodiversity Act 1999 – is structured around the conservation of nine Matters of National Environmental Significance (MNES). These MNES define the Australian Government's responsibility to the environment based on international agreements. The Great Barrier Reef is the only place that makes the grade as a Matter of National Environmental Significance in its own right. The rest of our natural icons are protected under broader MNES categories such as World Heritage, RAMSAR wetlands, migratory bird species and threatened species. This stand-alone requirement to protect the Great Barrier Reef provides the Minister the powers, and the responsibility, to address this problem and give the Great Barrier Reef, its coral shoals, dugongs and turtles the best chance of survival.

Human-induced climate change is the primary threat to the Great Barrier Reef and poor water quality can exacerbate climate-related impacts. Good water quality is critical for healthy and resilient ecosystems and supports recovery from disturbances such as mass bleaching and extreme weather events. Meeting water quality improvement targets within the next ten years is imperative.[12]
Great Barrier Reef: Scientific Consensus Statement, 2024



The Great Barrier Reef

The Great Barrier Reef is the world's most extensive coral reef ecosystem. It is made up of 2,500 individual reefs and over 900 islands, from small sandy cays to large rugged continental islands. It is spectacular, wild and diverse.

Inscribed on the World Heritage list in 1981, the Great Barrier Reef runs from the tip of Cape York through to north of Bundaberg on the Queensland coast. It is 348,700 square kilometres, larger than New Zealand, and home to around 9,000 known species of marine life, including 1,600 species of fish, 600 species of coral, 136 sharks and rays, 30 species of whale and dolphin and 6 of the 7 species of marine turtle.

The United Nations Educational, Scientific and Cultural Organisation (UNESCO), the organisation responsible for the global identification, protection and preservation of cultural and natural heritage is unequivocal in its summary of its World Heritage value, stating "[The Great Barrier Reef] encompasses a globally unique array of ecological communities, habitats and species. This diversity of species and habitats, and their interconnectivity, make the GBR one of the richest and most complex natural ecosystems on earth... No other World Heritage property contains such biodiversity"[13].

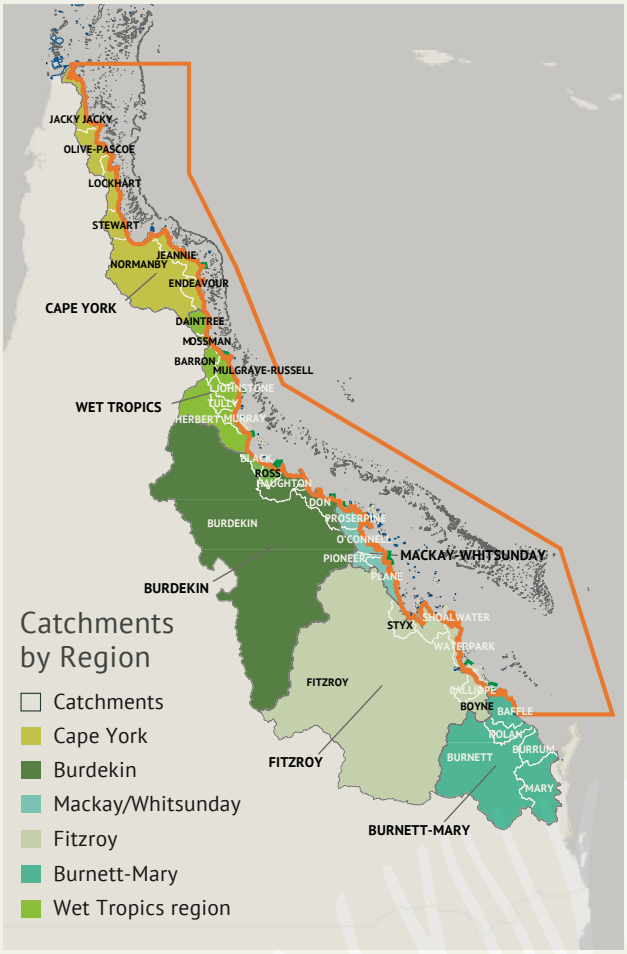
The Reef has an essential relationship to the Australian continent to which it hugs. The river catchments that run into the Great Barrier Reef are huge and include much of Queensland's agricultural lands covering 424,000 square km (42 million hectares), home to over 1 million people. They include the Burdekin, Fitzroy, Normanby, Herbert, Burnett Mary and 29 other catchments.

While climate change remains the key existential threat to the future of the Great Barrier Reef, the impact of unchecked deforestation across these catchments is smothering the reef and fundamentally undermining its ability to survive and regenerate. This report exposes the regulatory loopholes at both the state and national levels that have allowed hundreds of thousands of hectares to be cleared in these catchments in recent years. It also proposes solutions.

Indigenous homeland The Great Barrier Reef is an essential site for the cultural stories and identity of its First Nations' people. The connection of traditional owners "to the lands, rivers, wetlands, estuaries and sea country is ancient, continuous, and inseparable from the health of the Reef itself.[14]

Economic Powerhouse The economic value of the Great Barrier Reef has been estimated at $95bn, and it contributes $9bn to the Australian economy in 2023-24. At least 77,000 full time jobs rely on the Reef, including 42,700 jobs in Reef tourism regions[15]. Deloitte has estimated that if the Great Barrier Reef was a single employer, would be the 5th biggest employer in the country[16]. Agriculture in the catchment is worth $7.9bn per year, including $3.1bn for grazing[17].

The ecological, social, economic, cultural and Indigenous heritage values of the Great Barrier Reef are all interwoven. Without its continued ecological health, both the measurable economic and immeasurable cultural value of the Great Barrier Reef to traditional owners, Queenslanders, all Australians and the World's heritage are also diminished.



QLD GOVERNMENT 2025 WWW.REEFPLAN.QLD.GOV.AU

Extent of Deforestation in GBR Catchments

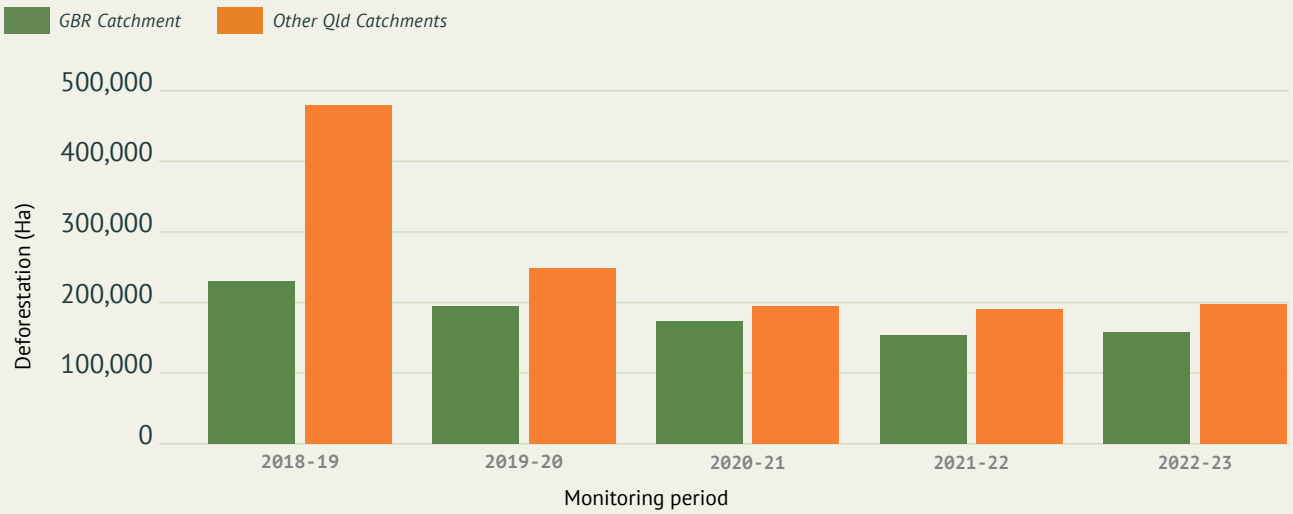
BURNING PILES OF CLEARED TREES, RIFLE RANGE RD, HERVEY RANGE

Great Barrier Reef catchments have been widely deforested, with less than half of the area retaining its forest cover. Deforestation has continued at a rapid pace in recent years, with 856,744 hectares cleared from 2018-23, with 722,375ha cleared for grazing[18]. This Reef catchment clearing represents 41% of all land clearing in Queensland. As the chart below makes clear, while clearing outside GBR catchments has decreased from 18/19, the clearing in GBR catchments has remained between 140,000-200,000 hectares.

The most damaging clearing occurs in riparian zones, within 50 metres of a water course. Hillsides and gullies are also high impact clearing sites. Where water flows is also where most soil is directly picked up and carried down the river system and onto the Reef.

Clearing in riparian zones has increased significantly, from 23,419 hectares from 2009-2013, and 47,803 in 2013-17[19]. This increased clearing is one key factor that resulted in reef water quality being rated as 'Poor" for sediment reduction and "Very Poor" for riparian in the official 2021-22 Reef Water Quality Report Card produced by the Queensland and Australian Governments[20].

GBR Catchment and Other Catchment



CLEARING NEXT TO WATERCOURSE, BLUEWATER, NEAR TOWNSVILLE

If we are to address water quality, deforestation in Great Barrier Reef catchments must be controlled, and clearing of the high-risk slopes and catchments and riparian zones ended.

The wholesale clearing of native forests for agriculture has fundamentally altered natural hydrological processes in Great Barrier Reef catchments.

Increased runoff and accelerated soil erosion has led to massively increased volumes of sediment and nutrients being deposited on reefs and into the GBR lagoon that stretches from the coast to the outer reefs.

The 2022 Scientific Consensus Statement is the most recent and rigorous scientific assessment of the Reef with over 147 authors and reviewers.

CLEARING RIGHT UP TO WATERCOURSE, RIFLE RANGE RD, HERVEY RANGE

The Science: How Deforestation Impacts the Great Barrier Reef

EROSION AND GULLYING IN LOWER BURDEKIN WITH STOCK TRACKS. 2019. MATT CURNOCK

This Statement clearly sets out the scientific basis connecting deforestation in Great Barrier Reef catchments and the health of the Reef. It concludes that historical and current land management is making water quality worse, and that the main driver of human-induced sediment and nutrients into the Great Barrier Reef is vegetation degradation and soil surface disturbance.

Vegetation degradation is "caused by tree clearing associated mainly with grazing and cropping land uses, low ground cover primarily from overgrazing and drought, and changes in the structure and function of vegetation including a shift to non-native grass species[21]. All these processes start with initial deforestation for grazing or cropping.

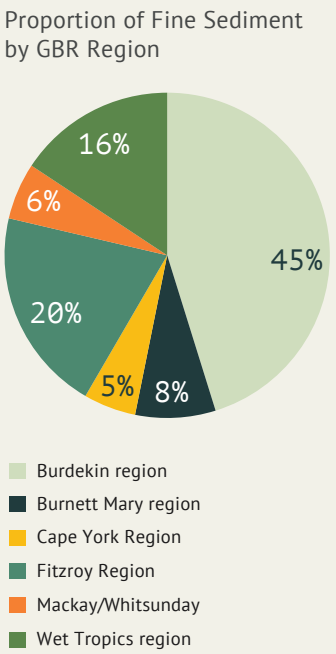
As a result, there is significantly more pollution of fine sediments and nutrients reaching the Great Barrier Reef from catchments than before clearing[22]. Sediment loads have more than tripled for most basins with the Burdekin, Mackay/Whitsunday, Fitzroy and Burnett Mary Natural Resource Management (NRM) regions[23].

The Burdekin and Fitzroy basins are the largest two exporters of fine sediment into the Great Barrier Reef lagoon. The Scientific Report on the Great Barrier Reef Water Quality Targets[24] sets out that fine sediment exports for the entire GBR Lagoon was 7.6m tonnes per year in 2023, with the Burdekin catchment delivering 3.4 m tonnes and the Fitzroy catchment delivering 1.5m tonnes. Land cleared for grazing is the largest driver of this sediment flow, estimated to be 60% of the total load.

SUSPENDED SEDIMENT IN LOWER BURDEKIN RIVER. 2019. MATT CURNOCK

This poor water quality, particularly from increased levels of fine sediments, nutrients and pesticides, is having detrimental impacts on Great Barrier Reef ecosystems. Excessive sediment and nutrient pollution damages coastal ecosystems in the following ways:

- making seabed surfaces unsuitable for coral larvae to settle and grow
- limiting the light available for seagrasses, symbiotic coral micro-algae and other reef organisms, which reduces their ability to feed, grow, reproduce and in doing so support coral growth
- reducing the growth rate of adult corals and their ability to recover from other stresses such as bleaching, crown-of-thorns starfish and tropical cyclones
- causing coral disease and mortality, and
- potentially contributing to outbreaks of crown-of-thorn starfish
- contributing to loss of coral diversity and algal dominance of reefs.
- reducing the likelihood of larval fish settling onto coral reefs and negatively impacting feeding behaviour of juvenile reef fish[25].



2023 BASELINE FINE SEDIMENT FROM SCIENTIFIC REPORT ON THE GREAT BARRIER REEF WATER QUALITY TARGETS

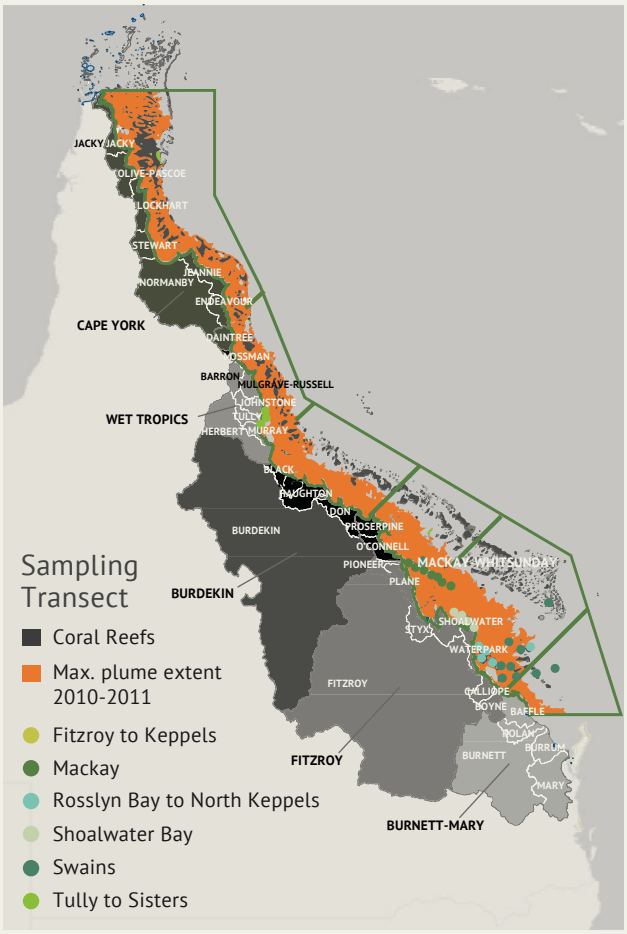
SEDIMENT PLUME OVER OLD REEF 60KM OFFSHORE 2019. MATT CURNOCK

While the 700 inner reefs within the Great Barrier Reef are the most impacted by sediment and nutrient pollution from runoff, the bright green shading at Figure 1 demonstrates how far sediment plumes reach onto the Reef and the Great Barrier Reef Lagoon, using the example of the 2011 Queensland floods[26]. While the 2011 floods were an extreme weather event, it's the form of extreme rainfall events that are becoming increasingly frequent as the climate changes, with major flooding events in 2013, 2017, 2018, 2019 and 2025.

An important aspect highlighted in scientific research on reef water quality is the long-term legacy of historical deforestation.

The increased runoff created by deforestation does not disappear once the initial clearing ceases. Instead, the altered soil structures, incised gullies, and depleted riparian zones continue to export pollutants into watercourses for decades. The vast majority of this deforestation has been for grazing, with 73% of the catchment area used for grazing, compared to cropping (2.8%) and sugarcane (1.2%). This is why addressing deforestation is so important, not just to prevent runoff pollution over the next few years, but for decades to come.

The Scientific Consensus Statement makes it clear that the health status of the Great Barrier Reef varies between ecosystems and locations. Observational studies report that the condition of Great Barrier Reef inshore coral reef ecosystems from the Wet Tropics to



SEDIMENT PLUME ON GBR, EXAMPLE, 2010-11 DEVLIN ET AL. (2012)

the Fitzroy region have all declined marginally since 2017 and were categorised as 'Poor' condition in 2020 to 2021. The combination of runoff and floods, and the resulting loss of habitat is also one of the greatest threats to dugongs and turtles in the Great Barrier Reef catchments.

Although climate change is the overall primary threat to Great Barrier Reef health, poor water quality from land-based delivery of fine sediments, nutrients, pesticides and other pollutants is also a major threat, especially for freshwater, coastal and inshore marine ecosystems.

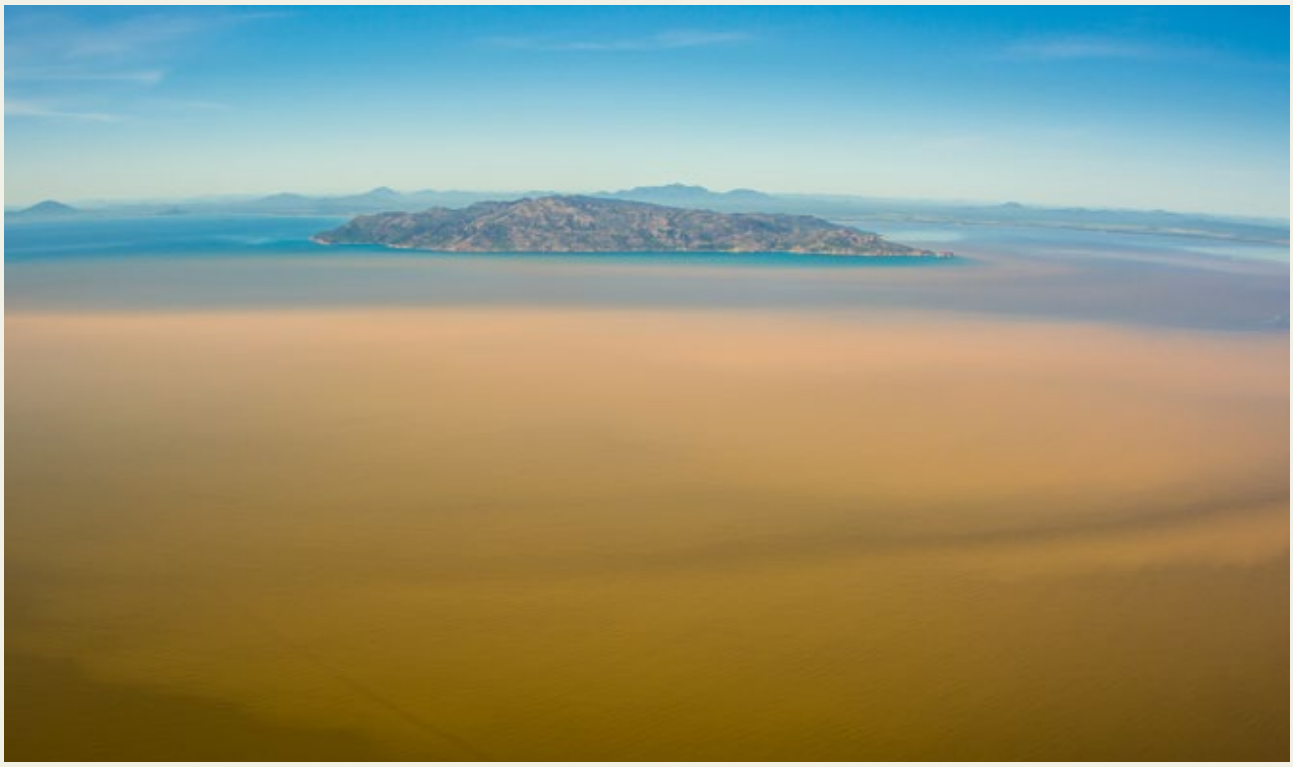
Climate change is making runoff worse, and rainfall extremes in GBR catchments mean these impacts will continue to intensify. Given the threat from climate change, the urgency of meeting Great Barrier Reef water quality targets within the next 10 years before impacts exceed the capacity of the Great Barrier Reef ecosystems to exist.

The science shows that improved water quality will ameliorate climate change impacts and buy time for coral reefs[27]. While improved water quality cannot shield reefs from marine heatwave, it is absolutely vital for enhancing local ecosystem resilience and accelerating coral recovery rates following a bleaching event.

Deforestation and extensive land-use changes in the catchments of the Great Barrier Reef have profoundly altered river flow dynamics and increased the volume of freshwater discharged during flood events. Since European farming practices began, the clearing of native vegetation for agricultural expansion and grazing has severely reduced soil stability and the landscape's natural capacity to retain water[28]. Native forests act as a critical hydrological buffer. The loss of forest cover accelerates surface runoff during heavy rainfall and results in more rapid river flows and significantly larger freshwater flood plumes entering the marine environment[29]. Consequently, deforested river basins now export massive and swift-moving pulses of freshwater that carry far greater loads of terrestrial runoff into the coastal ocean than they did historically[30].

The increased inundation of fresh water and associated terrestrial pollutants has severely detrimental impacts on the health and resilience of near-shore coral reefs. When these expansive flood plumes reach the reef, they bring sudden drops in salinity along with elevated turbidity that restricts the sunlight necessary for the survival of photosynthetic organisms like corals and seagrasses[31]. An example of this effect was the near total death of skirting coral around the Keppel Islands after the 2011 floods, that was attributed more to the impact of low salinity water from the floods than the sediment flows[32].

The Queensland Government and Australian Government both recognise the impact that water quality has on the GBR, as demonstrated by the nearly $1.8 billion that both governments have collectively



SEDIMENT PLUME IN GBR LAGOON. 2019. MATT CURNOCK

SEDIMENT PLUME FROM BURDEKIN RIVER. 2019. MATT CURNOCK

spent or committed from 2014/15 up until 2030 to support Reef Water Quality Improvements[33].

This extraordinary investment has not yet delivered the outcomes it was targeted to achieve, with the long-term outlook for the Great Barrier Reef rated as Very Poor in the joint Australian Government/Queensland Government Reef Water Quality Report Card 2021 and 2022[34]. We have failed to meet 2025 water quality targets for dissolved inorganic nitrogen by 46.5%, particulate nitrogen by 12.2% and sediment by 28.8%, only meeting our particulate phosphorus target.

Only the Cape York NRM region has achieved the 2025 targets for reduction in fine sediment reduction. Australia has never hit its own Reef-wide water pollution reduction targets despite extending the deadline to meet those targets three times since they were originally set in 2013[35].

In the Reef 2050 Catchment Water Quality Strategy that was released on 15 May 2026, it's the assessment of the Australian Marine Conservation Society (AMCS) that pollution reduction targets have been "completely overhauled – pushed back until 2032 and reset with a new baseline"[36].

Neither the Reef 2050 Catchment Water Quality Strategy or the Reef 2050 Water Quality Improvement Plan 2017–2022 has a target to prevent or reduce the extraordinary rate of deforestation in GBR catchments.

The closest is that an indicator in the Water Quality Strategy will be that "loss of woody vegetation in riparian areas is decreased", noting that this only covers the 50m riparian zones. In the Water Quality Improvement plan, the closest elements are "to enforce the Vegetation Management Act 1999". Instead, both strategies focus on restoring already degraded landscape, and supporting land management practices on grazing, sugar cane and banana farms only after the initial deforestation has occurred.

Controlling deforestation in the GBR catchments would have significant environmental and community benefits beyond addressing runoff and water quality. It would prevent the plume of carbon dioxide being emitted into the atmosphere when forests are converted to pasture, mitigating the climate pollution that drives global heating and bleaches the Great Barrier Reef.

Similarly, native forests in GBR catchments are typically likely or confirmed habitat for threatened species and ecosystems, and habitat loss is the key driver of extinctions for many of the listed threatened species.

Tackling Reef catchment deforestation would also have many additional benefits for eco-system services that benefit the local community, including pollination, tourism, protecting watersheds and significant cultural heritage values.

"We are in reach of a whole new relationship with the ocean, a wiser, more sustainable relationship. The choice lies with us."

SIR DAVID ATTENBOROUGH

World Heritage Concerns

The Great Barrier Reef was inscribed as a World Heritage site in 1981, as one of the first Australian World Heritage sites. This listing means Australia has made commitments to the world of our duty to protection, conservation and preservation and transmission to future generations of the outstanding universal values of the site[37], and that effective and active measures are taken to ensure the above duty is fulfilled[38]. This listing led to declaration of protection of the GBR through the passage of the Great Barrier Reef Marine Park Act 1975.

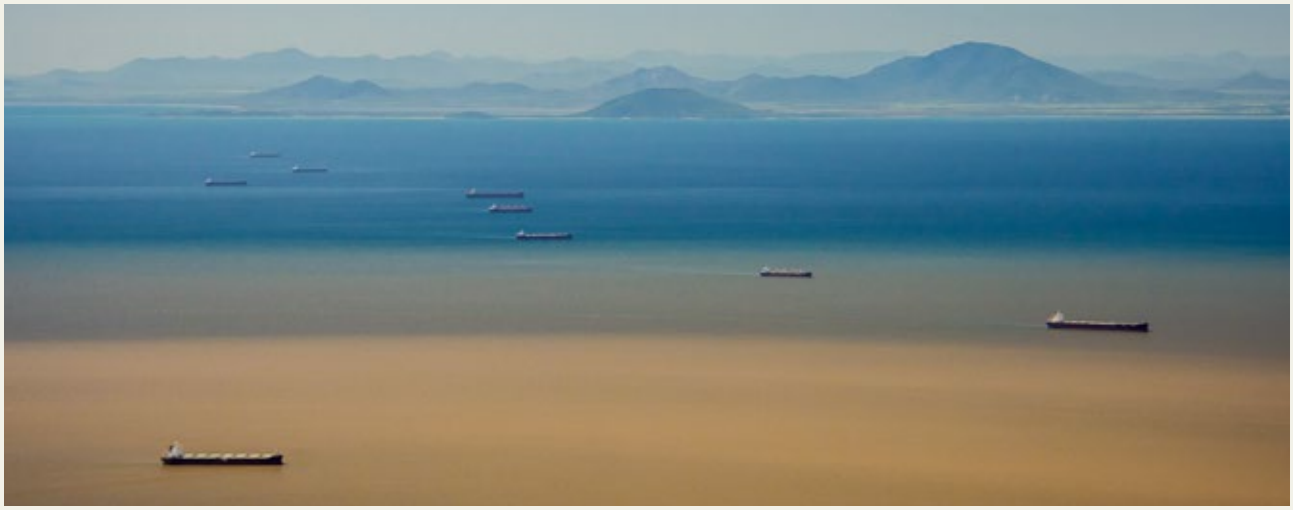
Since 2010, the World Heritage Committee has raised concerns about activities within the GBR and its surrounding areas and their impact on the outstanding universal values of the GBR. There was a reactive monitoring mission by the World Heritage Centre and IUCN in 2012, that resulted in recommendations on water quality that resulted in the 2013 Reef Water Quality Protection Plan and the Reef 2050 Plan among other reforms.

The 2022 reactive monitoring mission had as one of its objectives to "Assess the State Party's progress towards meeting key targets of the Reef 2050 Plan, in particular, but not limited to, the water quality and land management targets".

The reactive mission recommended the GBR be listed as endangered and made as one of its recommendations to "prioritise the protection of remnant native vegetation across the GBR catchments through strengthened native vegetation clauses under existing laws, and through improved identification and enforcement of permissible activities in areas of high conservation value (HCV) forests and woodlands."

The World Heritage Committee considered this, and requested Australia to take action to "Strengthen clauses under existing laws to ensure that all remnant and high value growth areas are protected, including Category X vegetation (under the Queensland Vegetation Management Act) and other high priority areas including riparian zones, lands vulnerable to degradation and areas contributing to sediment and nitrogen pollution."

In Minister Watt's State Party Report to the World Heritage Committee responding to the WHC's decision above, he states that "Recent legislative amendments to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) mark a significant shift, as Australia commences direct federal oversight of land clearing within Great Barrier Reef catchments. These critical reforms are designed to mitigate the discharge of sediment and diverse pollutants, thereby safeguarding the water quality of the Marine Park.[39]"



COAL SHIPS IN SEDIMENT PLUME OFF FROM ABBOTT POINT. 2019. MATT CURNOCK

SEDIMENT-FILLED WATERS OVER CORALS. 2019. MATT CURNOCK

This claim makes a positive indication that the Australian government has the intention to address continued harmful large-scale deforestation in reef catchments. The history of previous regulatory attempts and the still nascent nature of new environment reforms means the World Heritage Committee should treat such claims with caution and verify these reforms deliver this safeguarding.

In 2025, UNESCO's World Heritage Committee issued a clear call to action stating that it "regrets that 2025 water quality targets for sediment and dissolved inorganic nitrogen were not achieved and requests the State Party to complete the updated Water Quality Improvement Plan (WQIP) by 2025, and to ensure that water quality targets, and actions implemented through the updated WQIP are sufficiently ambitious and funded to ensure the OUV of the property is not further adversely impacted by low water quality, in particular to:

- Continue early detection and intervention to halt illegal land clearing, Strengthen clauses under existing laws to ensure that all remnant and high value regrowth areas are protected, including category X vegetation (under the Queensland Vegetation Management Act), and other high priority areas including riparian zones, lands vulnerable to degradation and areas contributing to sediment and nitrogen pollution,
- Ensure full compliance with Queensland's Reef Protection Regulations,
- Ensure that all Best Management Practice programmes effectively deliver water quality improvements;"

State Regulation and Loopholes

The Queensland Government has a history since the 1800s of encouraging deforestation in GBR catchments, with the Brigalow scheme in the 1960-80s requiring leaseholders to clear land or face forfeiting their lease. Since 1990, there has been legislative action by the Queensland Government to balance continued deforestation with the protection of remnant forests. Except for National Parks and private protected areas, the principal law controlling clearing of forests is the Vegetation Management Act 1999 (VMA).

The VMA creates a regulated vegetation management map, with different categories of mapped vegetation, including:

- Category A for offsets, compliance and voluntary measures
- Category B for remnant forest
- Category C for high value regrowth over 15 years old
- Category R for regrowth forest within 50 metres of a watercourse in a Great Barrier Reef catchment.

In each of the above categories, clearing is prohibited, albeit with multiple exemptions for Categories B, C, and R.

The VMA also creates Category X – areas exempt from protection under the VMA. As at July 2024, 36% of land in GBR catchments is mapped as Category X. While these other categories should protect the higher value forests in Reef Catchments, significant exemptions and the freezing impacts of Property Maps of Assessable Vegetation (PMAV) act as loopholes that allow continuing deforestation of Reef Catchments.

Property Maps of Assessable Vegetation are maps that landholders can apply for, that lock in the mapped categories on a parcel of land, regardless of future forest growth or vulnerability to soil erosion. These maps are used to prevent regrown forests from becoming protected by the VMA, and PMAVs now cover the vast majority of grazing properties in Queensland.

The self-assessable codes are exemptions in the VMA and the Planning Act 2016 that allow for clearing of forests for a range of reasons, including managing a native forest practice, fodder harvesting, managing weeds and managing encroachment. These codes have been used as loopholes to justify between 20,000-100,000 hectares a year over the period of 2018-2022.

The total impact of Category X and these exemptions means that 856,744 hectares of forest and woody vegetation were cleared in GBR catchments from the five years from 2018-23. As at July 2024, there was at least 712,242 hectares that is currently mapped as Category X that is within 50m of a GBR watercourse[40].

DEFORESTATION AT HARVEY RANGE

The Queensland Government regulates agricultural impacts on water quality through the Reef Protection Regulations under chapter 4A Environmental Protection Act 1994. Originally introduced in 2009, it requires agricultural "environmentally relevant activities" in Reef catchments to follow a standard or face investigation and potential prosecution. Relevant activities include cane farming, banana farming, beef cattle grazing and horticulture. While the beef cattle ERA prescribes important minimum actions such as restoring pasture that has less than 20% groundcover, these standards are much lower than the 70% groundcover level that was the (unmet) 2025 target for 90% of grazing lands to meet in the Reef 2050 Water Quality Improvement Plan.

These Reef Protection Regulations also provide no controls against deforestation for beef grazing, instead only providing limited regulation for ground cover after deforestation has occurred. This is a noticeable exemption, as horticulture or cropping expansion are required to acquire an environmental approval before expanding their activities. These regulations ignore the principal long-term driver of increased sediment flows into the GBR, deforestation in GBR catchments. This lack of coverage for new deforestation clearing for grazing is an illogical loophole that fails to equitably share the load of reducing run-off between new and existing agricultural businesses.

DEFORESTATION AT BLUEWATER PARK

Federal Laws to protect the GBR

While the Australian Government under Australia's Constitution doesn't hold responsibility for regulating the environment or biodiversity, through the external affairs power it has legislative authority to implement international agreements, including the 1972 World Heritage Convention, the 1992 Convention on Biological Diversity, and the 2022 Kunming-Montreal Global Biodiversity Framework.

The Australian Government's protection of the Great Barrier Reef began with the passage of the ***Great Barrier Reef Marine Park Act 1975***. This legislation established the Great Barrier Reef Marine Park and the Great Barrier Reef Marine Park Authority and provided the Authority with the framework and authority to protect the Marine Park. It allowed for the creation of spatial zoning plans to regulate activities such as commercial fishing and tourism while ensuring the long-term conservation of the ecosystem.

This Act has, since 1983, had the power to regulate activities, including "the use of a place outside the marine park for a purpose relating to it[41]. This includes the power to "regulating or prohibiting acts (whether in the Marine Park or elsewhere) that may pollute water in a manner harmful to animals and plants in the Marine Park[42];" This power has never been used by the Authority to address the impact of run-off on water quality, in spite of significant advocacy for this action by environment organisations and scientists.

The Australian Government then introduced the ***Environment Protection and Biodiversity Conservation Act 1999***, to serve as the central piece of national environmental law in Australia. Under this legislation, the Great Barrier Reef is recognised specifically and individually as one of the nine classes of protected Matters of National Environmental Significance (MNES). The GBR is unique in this list, as the only specific place to be identified as an MNES in its own right.

The EPBC Act sets out an assessment process that is required for any actions that would have a significant impact on MNES. Until recent amendments in December 2025, the general approach within the Australian environment department was that the continuing use exemption at s43B of the EPBC Act, as well as the lack of referrals for assessment by landholders or the State Government, meant that deforestation actions, clearing forests and woody vegetation by landholders for the purposes creating pasture for grazing, were not assessable.

Section 43 of the EPBC provides for grandfathering of existing environmental approvals from before operation of EPBC Act in 2000, and an exemption for lawful continuations of use of land (or sea or seabed) that have continued since 2000. The effects of these provisions have been broadly to exempt assessment of the impacts of land clearing for cattle grazing on a pastoral lease issued before 2000. While the Act does not authorise "any expansion, modification or intensification"[43], in practice, approximately 100,000 hectares of remnant forests have been cleared in Queensland every year from 2018-22 without any action taken under EPBC.

There have only been two instances of EPBC assessment of deforestation for grazing. The first was the aborted attempt in 2015, when the Australian Environment Department sent 51 letters to landholders that were planning to clear forests, indicating that assessment by the Australian Government "may be necessary"[44]. Following political pressure by Queensland National Party MPs, the departmental Assistant Secretary Shane Gaddes then wrote to the 51 landholders apologising, saying that because of information from the Queensland Government, the Australian Government was obliged to address it to avoid the potential of third parties to bring action under the EPBC Act[45].

The second occasion was in 2016, the Environment Department called in the planned clearing of 2100 hectares of Kingsvale Station near Princess Charlotte Bay on Cape York by leaseholder Scott Harris. Australian Minister Sussan Ley eventually decided in 2020 not to approve this clearing, citing a range of impacts of the proposal clearing, "including the golden-shouldered parrot, red goshawk and bare-rumped sheath-tailed bat, as well as potential run-off and nutrient issues that are likely to impact on the Great Barrier Reef"[46]. This decision was later confirmed by the Federal Court in 2021, finding the Minister's decision was valid[47]. Despite this precedent, no further call-ins or other enforcement action of proposed agricultural deforestation has been taken by the Australian Department until recent reforms of the EPBC Act.

The Reef 2050 Long term plan

The Australian and Queensland governments collaboratively developed the initial Reef 2050 Long-Term Sustainability Plan in response to pressure from the WHC. The plan, which was officially released in March 2015, provided a comprehensive framework

for managing the reef through to the year 2050 by setting specific targets for reducing local stressors, particularly riverine nutrient loads and agricultural runoff[48]. Under the Reef 2050 Long term plan, The Reef 2050 Catchment Water Quality Strategy released by the Queensland and Australian Governments in May 2026, as a successor to the Reef 2050 Water Quality Improvement Plan 2017–2022. Both are silent on measures to reduce vegetation clearing in Great Barrier Reef catchments other than the measurement of riparian zones, and opaque in its references to the 2022 Scientific Consensus Statement on land-based impacts.

However, the strategy does highlight the failure to reach agreed 2025 water quality sediment reduction targets and confirms desultory outcomes by the Queensland Reef Water Quality Program over the period commencing in 2023 that has seen only 110 hectares of gullies remediated and seven hectares of stream bank remediated.[16] This is despite agreed targets to reduce fine sediment loads by 1,510,000 tonnes per annum.[17]

EPBC reforms 2025 until now

In December 2025, the Australian Parliament passed significant amendments to the Environment Protection and Biodiversity Conservation Act 1999 as part of the new Environment Protection Reform legislation.

These amendments changed how deforestation for agriculture is assessed by limiting the continuing use exemption, so that it no longer applies to land that has not been cleared of vegetation for more than 15 years, or land "within 50 metres of any of the following in a catchment area of the Great Barrier Reef Marine Park: a watercourse; a wetland or a drainage line."

These reforms aim to partially align the agricultural sector with other industries by ensuring that actions likely to significantly impact matters of National Environmental Significance are properly scrutinised and regulated. This means that grazing landholders are obliged to assess if clearing will significantly impact MNES, and if so refer the action for EPBC approval, just as a mine or housing development would be required to do.

Recent reports by the Australian Conservation Foundation indicate that in spite of these amendments coming into effect on 1 December 2025, landholders who have cleared threatened species habitat more than 15 years old have been told by Queensland and New South Wales State governments that referrals are not necessary, even when reportedly being asked directly by landholders about the operation of the new reforms[49].

Public guidance by the Australian Department of Environment states that "*most activities on developed agricultural land don't need to be referred for assessment. Their environmental impacts are low and below the thresholds set by national environment law.*"

However, it is unclear what evidence has been assessed as the basis for providing guidance to landholders that 'most environmental impacts' for agricultural clearing are 'low' and 'below' national environmental law 'thresholds', particularly in respect to the substantial evidence on the impact of clearing on Matters of National Environmental Significance that are likely to be affected by soil and nutrient runoff and pollution in Reef catchments.

These MNES, within the Australian Government's sphere of responsibility include the Great Barrier Reef as a listed 'protected matter', the Great Barrier Reef World Heritage property, and threatened and migratory marine species.

The opportunity to reduce deforestation

The passage of the EPBC reforms marks a clear and stated intent by the Australian government to address the impact of deforestation on the GBR by limiting the continuing use loophole in the EPBC Act, apply federal law even where Queensland legislation fails to protect forests, and provides a range of options that can be pursued by the Australian Government to assess, and if required, reduce the cumulative impacts of clearing on reef water quality.

A range of actions should be pursued including:

- take strong compliance action to achieve behaviour change in landholders. The non-compliance with the new laws by landholders through the instances of continued clearing of forests in riparian zones or 15 year old forests likely to be habitat for endangered species without any referral for assessment has to stop.
- Environment Information Australia needs to rapidly develop Early Warning capacity able to detect clearing in areas likely to require assessment, like the Queensland Government's satellite based Early Warning System
- Immediately commence an assessment of the cumulative impacts of vegetation clearing and cattle intensification on water quality in the Great Barrier Reef
- The development of a bioregional plan for Reef catchments to manage the impacts of vegetation clearing and cattle intensification on Reef water quality
- A bilateral agreement between the Queensland and Australian Governments in which the outcomes of a cumulative impacts assessment could be accredited as a requirement for accreditation.
- Finally, the results of the cumulative impacts assessment could be produced in the form of a regulatory map that would identify those areas not suitable for vegetation clearing consistent with targets outlined in the Reef 2050 Water Quality Strategy.

Conclusion

Australia can no longer afford to ignore the devastating impact of land clearing on the Great Barrier Reef. The science unequivocally demonstrates that deforestation changes the ability of the landscape to retain water, unleashing a process of land degradation that results in yearly massive plumes of sediment and nutrients that smother fragile coral and marine ecosystems.

Despite significant government investment in water quality improvement, the failure to stop new clearing means pollution targets are continually missed and the health of the Reef continues to decline.

State regulations remain riddled with exemptions, leaving federal intervention as the most viable path forward.

The recent reforms to the Environment Protection and Biodiversity Conservation Act finally provide the legislative tools needed to assess and reduce harmful deforestation.

However, these laws will have very limited effects in improving protection of the Reef without rigorous enforcement and a commitment to addressing the cumulative impacts of ongoing clearing. The Australian Government must act decisively to protect remnant and regrown forests in GBR catchments.

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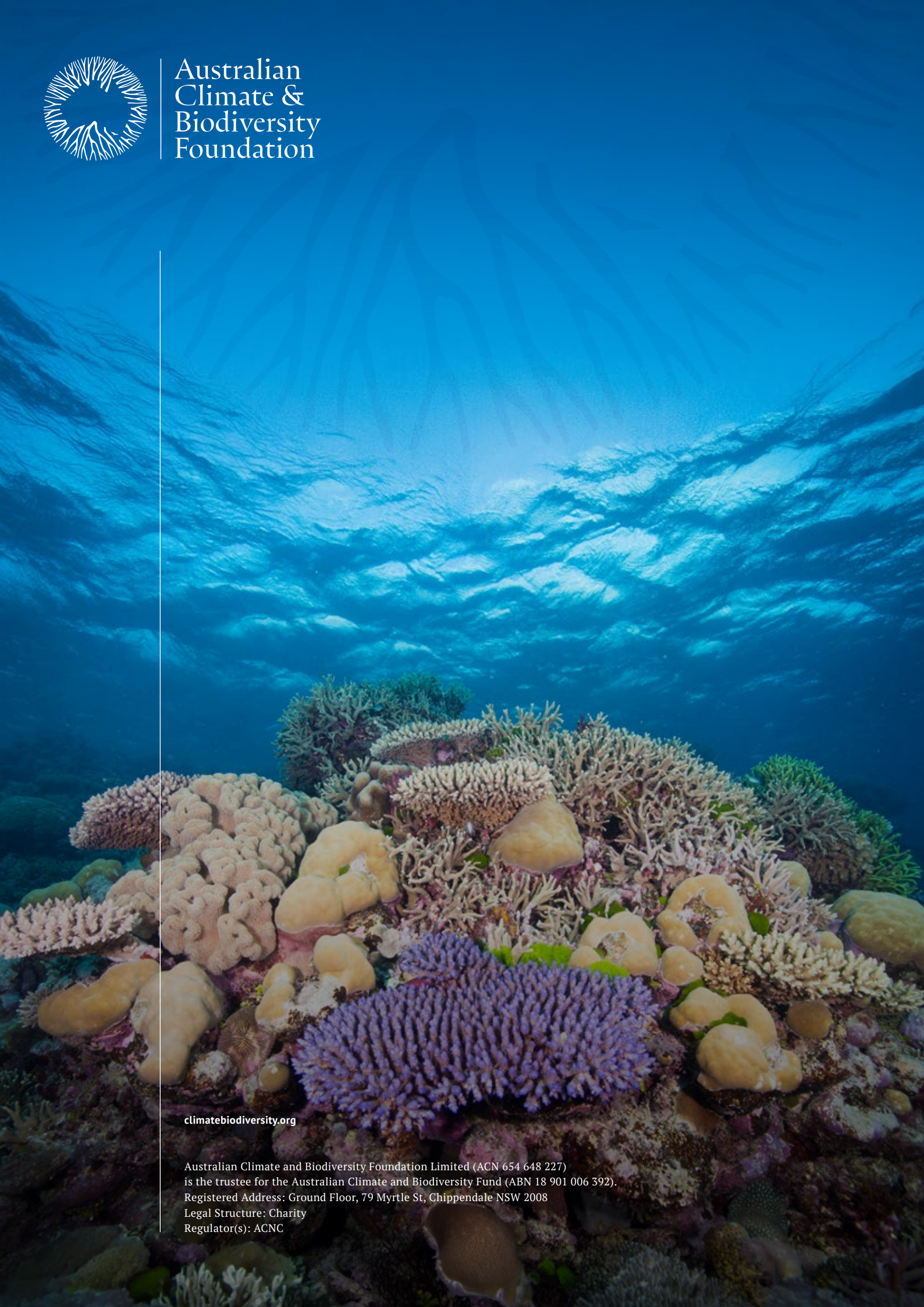

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