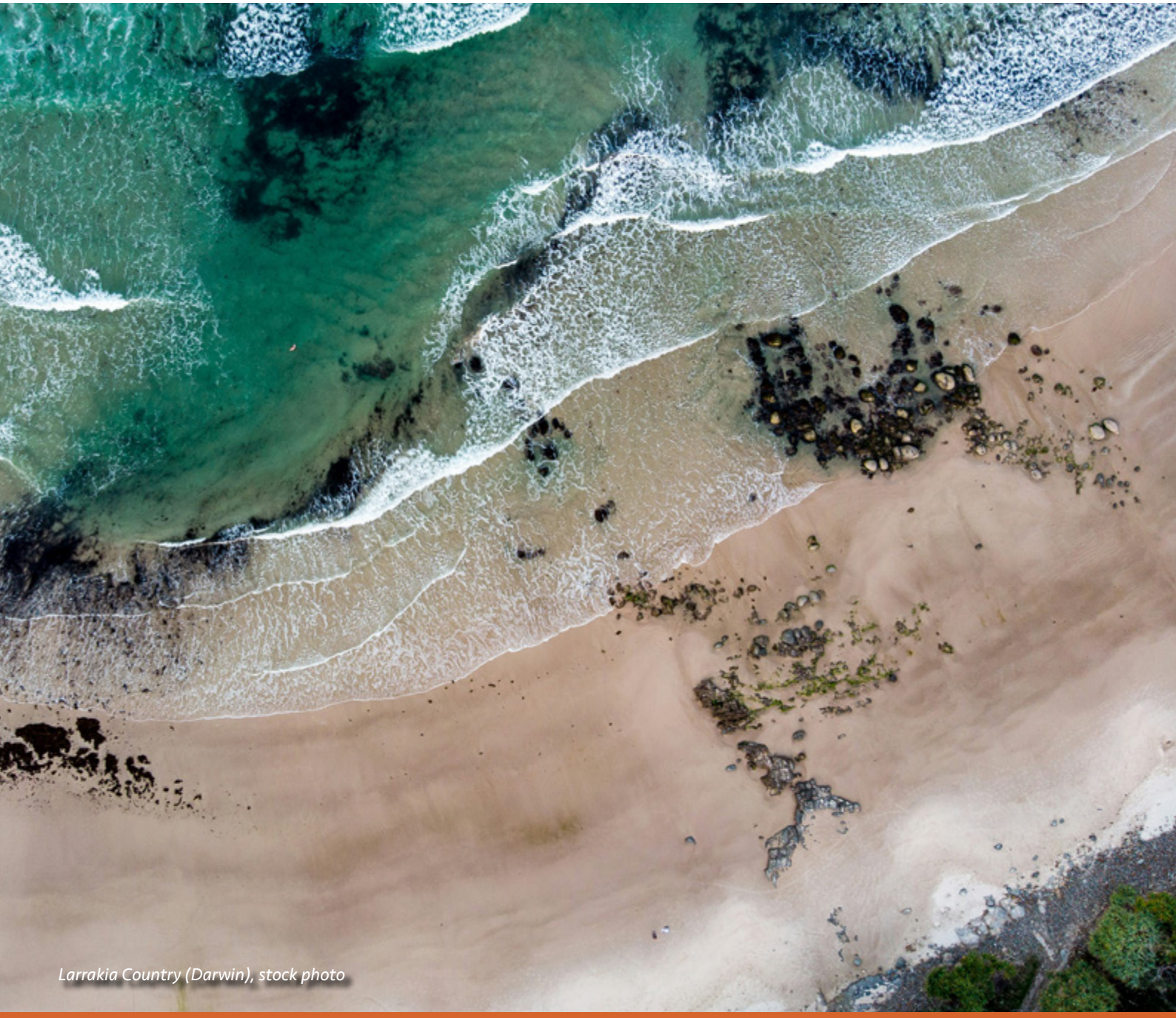
ICIN Indigenous Carbon Industry Network

Background report



Larrakia Country (Darwin), stock photo

Blue Carbon in Australia: understanding the opportunity for Indigenous People

A background report providing information and mapping related to Indigenous participation in Blue Carbon projects

March 2024

Prepared by the Indigenous Carbon Industry Network

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Disclaimer

The purpose of this Report, including all associated annexes and mapping materials, is to provide general information in relation to blue carbon and related nature repair markets. It does not contain a comprehensive analysis of all blue carbon opportunities, nor does it constitute legal, financial, or business advice. You must take specific expert advice on any matter which concerns you. While care has been taken to ensure the accuracy of this information, the authors accept no liability and expressly disclaim liability for any person's loss arising from the use of this document.

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Executive summary

Australia's extensive coastline harbors a valuable natural asset: blue carbon ecosystems. These mangroves, salt marshes, and seagrass meadows not only provide vital habitat for diverse marine life, but they also act as powerful carbon sinks, capturing and storing greenhouse gases from the atmosphere. As the world grapples with climate change, blue carbon has emerged as a promising tool for mitigation, and Indigenous people, with their deep connection to these lands and waters, hold the key to unlocking its full potential.

While Australia is lauded as a 'blue carbon hotspot', having a healthy blue carbon ecosystem does not necessarily equate to an opportunity to do a blue carbon project. Similar to land-based carbon projects, blue carbon projects (which are simply carbon projects that occur in coastal and marine ecosystems) usually require an activity to restore or protect a degraded or threatened ecosystem, i.e., they require some level of damage or threat rather than an already healthy ecosystem.

In Australia, there is currently one ACCU Scheme Method available for blue carbon, involving the reintroduction of tidal flows into coastal wetlands. Other blue carbon activities/methods may become available in the future (i.e. research is currently being undertaken investigating the carbon potential from the management of seagrass, and the removal of ungulates from coastal wetlands). Beyond the ACCU Scheme, landholders also have the option to look at voluntary market programs, such as Verra and Gold Standard, that are investing significantly in the development of new blue carbon methods.

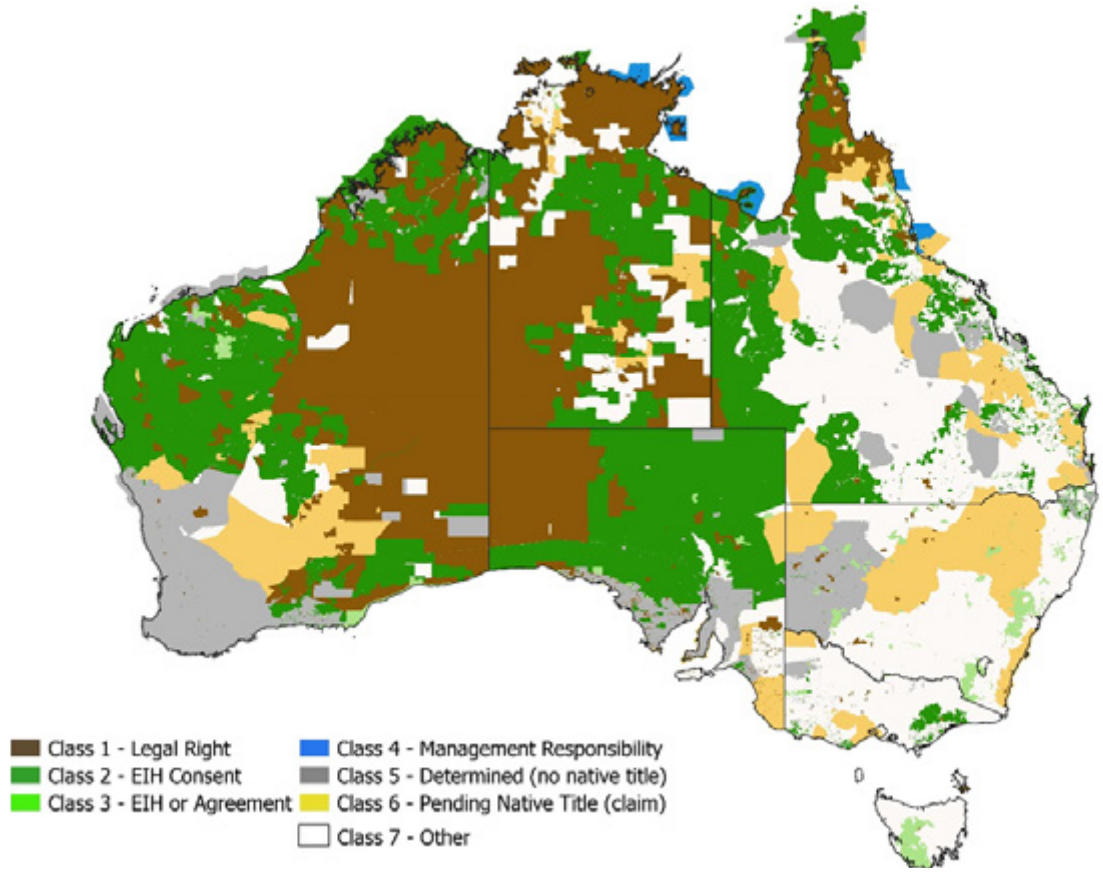
Outside of the carbon market, the biodiversity or 'nature repair' market is rapidly gaining shape, presenting opportunities in areas where carbon methods do not apply, including the potential to 'steward' existing healthy ecosystems.

This report delves into the possibilities that blue carbon presents for Indigenous People. It explores the various carbon markets and emerging nature repair markets where blue carbon projects can generate income through carbon credits, biodiversity offsets, and other mechanisms. However, financial viability is just one piece of the puzzle. At the heart of this opportunity lies the fundamental question of rights.

Indigenous people have stewarded these coastal ecosystems for millennia, and their rights must be central to any blue carbon development. Our analysis, captured in the following Map, reveals that Indigenous people hold legal or consent rights, recognised under the ACCU scheme, along 66% of the Australia's coastline (Classes 1, 2 and 3). However, there is limited overlap between these strong rights and the applicable ACCU Scheme Blue Carbon Method. Indigenous people are also responsible for managing significant areas of Sea Country, but these management responsibilities do not always equate to rights which are recognised under the ACCU Scheme.



Kakadu National Park, stock photo



Map: Indigenous rights and interests (carbon and nature repair)[1]

Internationally, there is growing recognition of the pivotal role of Indigenous people in conservation and carbon projects which supports positioning Indigenous people as decision makers and rights holders in relation to blue carbon projects. Global examples, such as the Great Bear Rainforest Carbon Project and the Hinemoanda Halo Ocean Initiative, discussed in Part 6 of this Report, demonstrate how Indigenous people and knowledge can be placed at the forefront of blue carbon projects.

In Australia, Commonwealth, State and Territory Governments must step up and adopt clear policy positions that grant Indigenous ownership of carbon rights in areas where the Crown currently holds them and mandate their consultation for projects on Crown lands. Policy measures are also required in relation to non-ACCU Scheme projects, to ensure Indigenous rights are respected and upheld. Cultural considerations are equally important. Safeguards must be developed to protect not just physical heritage but also intangible cultural values in coastal zones and sea country, ensuring that blue carbon projects coexist harmoniously with Indigenous traditions and knowledge.

One of the complexities of blue carbon projects is that they will often straddle tenure and jurisdictional boundaries, requiring involvement from not only multiple land or interest holders, but also multiple layers of governments and/or departments. There will frequently be multiple and overlapping right holders within a blue carbon project area. Engaging collaboratively with all interest holders from the outset will be a key factor in project success.

[1] It is important to note that the maps presented in this report do not depict the full extent of Indigenous interests across Australia's land and sea country. For the purposes of this report, we have identified Indigenous interests through the narrow lens of legal mechanisms for Indigenous engagement in the ACCU Scheme. However, we note that all areas of country, including those not identified within the maps presented in this document, still maintain Indigenous interests and connections. Indeed, the Indigenous estate extends over the entirety of Australia and has never been ceded or extinguished.

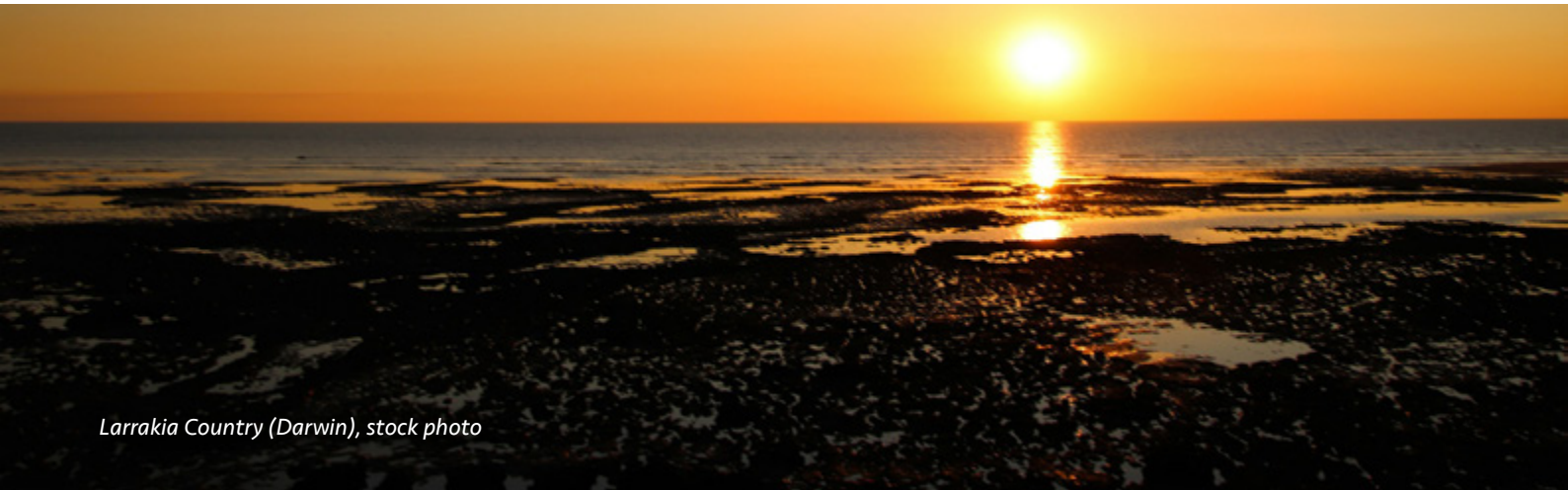
In addition to navigating the question of rights and opportunities, blue carbon projects also involve significant complexity, understanding how to operate a project, overcoming complex land tenure and permit requirements, and implementing project activities will require specific expert advice and start-up funds. A dedicated start-up fund and ongoing technical assistance will empower Indigenous communities to become active participants and leaders in this field.

Beyond governments, the responsibility lies with all stakeholders. Within the Australian carbon industry, and outside Indigenous owned carbon projects, Indigenous engagement generally has been grossly inadequate. The position, taken by some commercial carbon operators, that proper Indigenous engagement is too expensive or time consuming must be both challenged and overcome. Far more costly than meaningful engagement are carbon projects being deregistered or sitting inactive with no-ACCUs issued because projects have failed to adequately engage.

Project proponents must embrace a collaborative governance model, recognizing Indigenous people as equal partners or project owners. The principles of Free, Prior, and Informed Consent (FPIC) must be embedded in all aspects of the carbon and nature repair markets, preventing any exploitation of Indigenous rights. The Australian carbon industry itself has a crucial role to play by calling out bad practice, including attempts to assign future carbon rights away from Indigenous people through pilot or research projects.

Indigenous people, the rightful custodians of these blue carbon resources, are not passive beneficiaries in this equation. They must actively engage, carefully considering the type of blue carbon project and program that best suits their goals. Expert advice on project boundaries, land tenure, and technical aspects is essential. Exploring market opportunities beyond carbon, such as biodiversity and nature repair, can diversify income streams and enhance project viability. Scrutinizing agreements with a critical eye and seeking independent advice before signing anything is paramount.

Blue carbon stands at the crossroads of environmental protection, economic opportunity, and cultural empowerment for Indigenous people. By prioritising Indigenous rights, fostering collaboration, and embracing Indigenous knowledge, we can unlock a tide of positive change – one that contributes to climate change mitigation, strengthens communities, and celebrates the enduring connection between people and place. All levels of government, Indigenous people and the Australian carbon industry must rise to meet this challenge together, ensuring that blue carbon becomes not another extractive industry, but a force for good that lifts the tide for all.



Larrakia Country (Darwin), stock photo

Key recommendations

Recognising the strong and ongoing connection that Indigenous people have to their lands and waters, this report makes the following recommendations:

Recommendation A

The Australian Government, in partnership with State and Territory Governments should:

A1) Grant Indigenous people the rights to own and sell carbon in coastal ecosystems where the Crown may otherwise have the carbon right (i.e., outside of privately or Indigenous owned lands).

A2) Require that for all ACCU Scheme projects where the Crown (as either State, Territory or Australian Government) holds an eligible interest, Indigenous people must also be consulted in the project development.

A3) Prioritise the development of ACCU Scheme Methods that are applicable to the Indigenous estate.

A4) Provide financial and technical assistance to Indigenous people to develop and implement blue carbon projects, including establishing a start-up fund.

A5) Work with Indigenous people to develop and implement cultural and environmental safeguards for blue carbon projects.

A6) Examine the operation of non-ACCU scheme carbon projects in Australia and provide guidance on the protection of Indigenous rights.

Recommendation B

The Australian Carbon industry must improve its engagement with Indigenous people, including:

B1) Adopting a default governance model for blue carbon projects which position Indigenous people as project owners, or at a minimum as equal joint partners in the project.

B2) Embedding the principles of FPIC in all aspects of the carbon and emerging Nature Repair Market including blue carbon and coastal ecosystem projects (including consultation with native title claimants).

B3) Calling out bad-practice, including assigning future carbon rights through pilot or research projects, with safeguards to avoid the exploitation of Indigenous people.

Recommendation C

Indigenous people should:

C1) Carefully consider the type of blue carbon program and project they want to use, and seek expert advice on project boundaries, land tenure, and technical matters.

C2) Be aware of the potential market opportunities outside of carbon, such as biodiversity offsets and nature repair. Combining a carbon project with another type of project may increase its financial viability.

C3) Carefully review and understand any agreements they are asked to sign. Be aware of any hidden clauses and don't agree to anything you don't understand.

C4) Be aware that carbon or nature repair projects can be ran by Indigenous people without the

involvement third party service providers (similar to how the majority of Savanna Burning projects on Indigenous lands are 100% owned and operated by Indigenous people without third party service providers involved).

C5) Seek independent advice before entering into any blue carbon project agreements. This will help to ensure that your interests are protected.



Larrakia Country (Darwin), stock photo

1. Introduction

The *National Approach to Indigenous Engagement in Australia's Blue Carbon and Environmental Markets Project* (NESP Project 3.2, from here referred to as the 'NESP Project') seeks to report on the wide-ranging rights and interests of Indigenous peoples in the coastal environment across all Australian jurisdictions to help empower communities to engage in the emerging blue carbon and Nature Repair marketplaces.

The NESP Project is coordinated by the Charles Darwin University (CDU), with the Indigenous Carbon Industry Network (ICIN) and the North Australian Indigenous Land and Sea Management Alliance (NAILSMA) as project partners.

This report forms the first phase of the NESP Project, which involves compiling background materials and developing mapping information with the purpose of providing information and clarity around blue carbon issues and resource discussions. The information covered in this report includes:

- technical and background information on blue carbon, including an examination of existing and emerging blue carbon methods under the ACCU and voluntary carbon schemes and an overview of other non-carbon nature-based solutions (Part 2).
- a discussion of land interests in the coastal zones, highlighting the complexities of coastal land tenure, and providing an overview of the types of interests and key players that might be involved in a blue carbon project (Part 3).
- an analysis of Indigenous' rights and interests, including presenting maps of where these interests occur on land and sea country (Part 4).
- blue carbon resource information and project examples (Part 5)
- a summary of international resources and initiatives related to blue carbon and Indigenous rights (Part 6).
- a discussion of some of the important considerations for Indigenous people when engaging with blue carbon projects (Part 7).
- recommendations for Government, the Australian Carbon Industry, and Indigenous people engaging in the blue carbon market.

The information in this report is limited to 'coastal' ecosystems, and the topic of 'teal carbon' (i.e., freshwater carbon stocks) is beyond the scope of this report.

The background materials provided in this report will be used to inform Indigenous stakeholder workshops and interviews to be undertaken during 2024 (Phase 2). This consultation will in-turn inform a set of principles and recommendations to advise best-practice and empower Indigenous groups to engage in the blue carbon market (Phase 3 - due for completion December 2025).

2. Overview of blue carbon

What is 'blue carbon'

The term 'blue carbon' refers to the carbon that is stored in coastal and marine ecosystems, such as mangroves, salt marshes, Melaleuca forests (supratidal) and seagrass meadows. These ecosystems capture and store carbon, and they can play an important role in fighting climate change.

The blue carbon market is based on the idea that companies and individuals can pay to offset their greenhouse gas emissions by funding projects that protect and restore coastal ecosystems.

Potential blue carbon activities include avoiding loss where there is:

- Demonstrable habitat threat.
- Identified activities to mitigate.

Or restoration of ecosystems through:

- Reconnection of tidal flows.
- Rewetting drained wetlands, or improving the condition of wetlands
- Replanting or the regeneration of vegetation.

By increasing the carbon that is stored in these ecosystems, these projects can generate carbon credits, which can then be traded on the carbon market. Put simply, blue carbon is an extension of existing carbon markets into coastal and marine ecosystems.

The sudden and growing interest in blue carbon is driven by a number of factors, including:

- increased awareness that coastal ecosystems, as a major carbon sink, have a crucial role in mitigating climate change.
- updated scientific understanding[2] and new technologies that make it easier to measure and monitor carbon in coastal ecosystems.
- growing demand for carbon offsets, that is unlikely to be met from only land based offsets.
- Australia is considered a global 'blue carbon hotspot', with approximately 12 per cent of the world's blue carbon ecosystems[3], and a significant portion of this being on Indigenous lands.

[2] See for example the *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands (Wetlands Supplement)*, which extends the content of the 2006 IPCC Guidelines by filling gaps in coverage and providing updated information, including updating emission factors.
[3] Department of Climate Change, Energy, Environment and Water, https://www.dcceew.gov.au/climate-change/policy/ocean-sustainability/coastal-blue-carbon-ecosystems [accessed 13 September 2023].

The Indigenous Carbon Industry Network (ICIN) has identified that:

> *The Blue Carbon market provides an opportunity for Indigenous community economic gain amidst complex legislation, tenure, resource ownership and co-benefits that haven't been investigated in detail. Projects ... will occur on Aboriginal-owned land and mixed tenure where Indigenous people hold significant values and interests. Ensuring Indigenous peoples rights, equity, and that principles of free, prior, and informed consent, are at the fore front of projects, leading [best] practice Indigenous engagement is essential.*

While the blue carbon market is simply extending carbon projects into coastal zones, there are a few things that make blue carbon projects more complex than land-based carbon projects. These include:

- **Understanding the opportunity:** currently there is only one blue carbon method under the Australian Carbon Credit Unit (ACCU) Scheme, and three main international methods. Despite this, there is a lot of interest. However, blue carbon 'potential' is not the same as a realisable carbon project[4]. Some people, in Australia and internationally, are implementing 'blue carbon projects' without an existing method or accreditation scheme[5]. All this can create confusion. Pinpointing the actual opportunity is key to facilitating understanding. This issue is considered further below.
- **Project rights and coastal land tenure:** Blue carbon projects occur along the coast, often crossing the inter-tidal zones, and for some projects, extending below the low-tide mark. These areas have complex and overlapping tenures and users. Understanding who has the right to operate the project and receive the carbon credits, and even identifying and mapping where tenure boundaries are, can be a complex exercise. This issue is considered further in Part 3 of this report.
- **Indigenous rights in the coastal zone and sea country:** While Indigenous people have recognised legal and consent rights along 66% of Australia's coastline, these rights occur largely in areas without applicable ACCU Scheme Methods. Beyond the coastline, sea country rights are generally not as well recognised as land-based rights. From a native title perspective, less determinations and claims have been made in the sea than for the land, there is a higher rate of extinguishment, and recognised rights are predominantly of a non-exclusive nature[6] or confined to management responsibilities that are not legally recognised by the ACCU Scheme. As a result, Indigenous people are at an enhanced risk of exploitation or disenfranchisement[7], potentially with Indigenous people having a limited or passive role in project development and ownership, especially outside of Northern Australia. Indigenous rights in blue carbon projects, including maps, are discussed in Part 4, with a discussion of the international rights framework at Part 6.

[4] The Nature Conservancy, *Asia Pacific Blue Carbon Workshop*, August 2023.
[5] This may be driven by a number of reasons such as: to pilot/test new methods; as a form of venture capitalism, to catalyse investment; or to access the 'nature repair market', which is related to, but different from the carbon market.
[6] https://nativetitle.org.au/learn/native-title-and-pbcs/native-title-rights-and-interests [accessed 13 September 2023].
[7] See The Nature Conservancy, *Beyond Beneficiaries, Fairer Carbon Market Frameworks*, (2023) for further discussion of the challenges faced by Indigenous group in a rights-limited context available here https://nature4climate.wpenginepowered.com/wp-content/uploads/2023/08/TNC_Beyond-Beneficiaries-220823.pdf [accessed 13 September 2023].

- **Project boundaries:** the boundaries of the blue carbon project itself may be difficult to define, particularly if the project has the potential to impact neighbouring properties. Further, project boundaries can change during the project period, creating further complexity. Once a method is decided on, hydrological mapping combined with expert advice can help address this issue. This issue is beyond the scope of this report. Further information can be found in the relevant method, or from industry experts.
- **Project activity:** coastal ecosystems are complex, and improving ecosystem conditions may not be as simple as undertaking a single activity (e.g., planting trees), but may require consideration of broader conditions impacting ecosystems, such as infrastructure and development, water health etcetera. Having a strong understanding of the method, and if necessary, obtaining relevant expert advice can help ensure the project activities are consistent with the desired outcome. This issue is beyond the scope this report. Further information can be found in the relevant method, or from industry experts.
- **Regulations and permits:** coastal ecosystems, and blue carbon projects, are governed by a number of different areas of law such as, planning and development; coastal management; fisheries; cultural heritage; or environmental protection. Frequently, different government agencies and/or different levels of government (local, State/Territory or Commonwealth) are involved. Understanding what permissions are required from who, and obtaining these, can be difficult. Once again, this is an area where a project will need specific expert advice. This issue is beyond the scope of this report[8].

While these factors may increase the complexity of planning and implementing a blue carbon project, the other aspects of a carbon project – such as project governance, feasibility, reporting, auditing, crediting and sales – largely remain the same. The ICIN have published a Carbon Projects Guide, which provides more information on running a carbon project under the ACCU Scheme.

Understanding the opportunity

One challenge with blue carbon is understanding what the actual opportunity is. Government, private investors, and researchers all display interest in blue carbon, but much of this interest does not necessarily equate to a real and present carbon market opportunity.

Many documents, including those that refer to Australia as a 'blue carbon hotspot', are referring to the existing carbon stock i.e., the blue carbon stores (mangroves, seagrass, salt marshes) that are currently in existence. This is different from abatement or offset potential. For a carbon project to occur, there usually needs to be either a real threat or historic damage to the ecosystem, for example dredging or clearing for a port, with an opportunity for restoration. Where these circumstances don't exist, and the ecosystem is largely healthy and intact, there is unlikely to be a blue carbon project, though there may be an opportunity for another type of 'nature repair' project. Nature Repair opportunities are discussed in more detail below. These different opportunities and how they interact with sea country is demonstrated in Figure 1, on the following page.

[8] More information on this is available in: Bell-James, J., Foster, R., & Shumway, N. (2023). The permitting process for marine and coastal restoration: A barrier to achieving global restoration targets? Conservation Science and Practice, e13050. https://doi.org/10.1111/.csp2.13050.

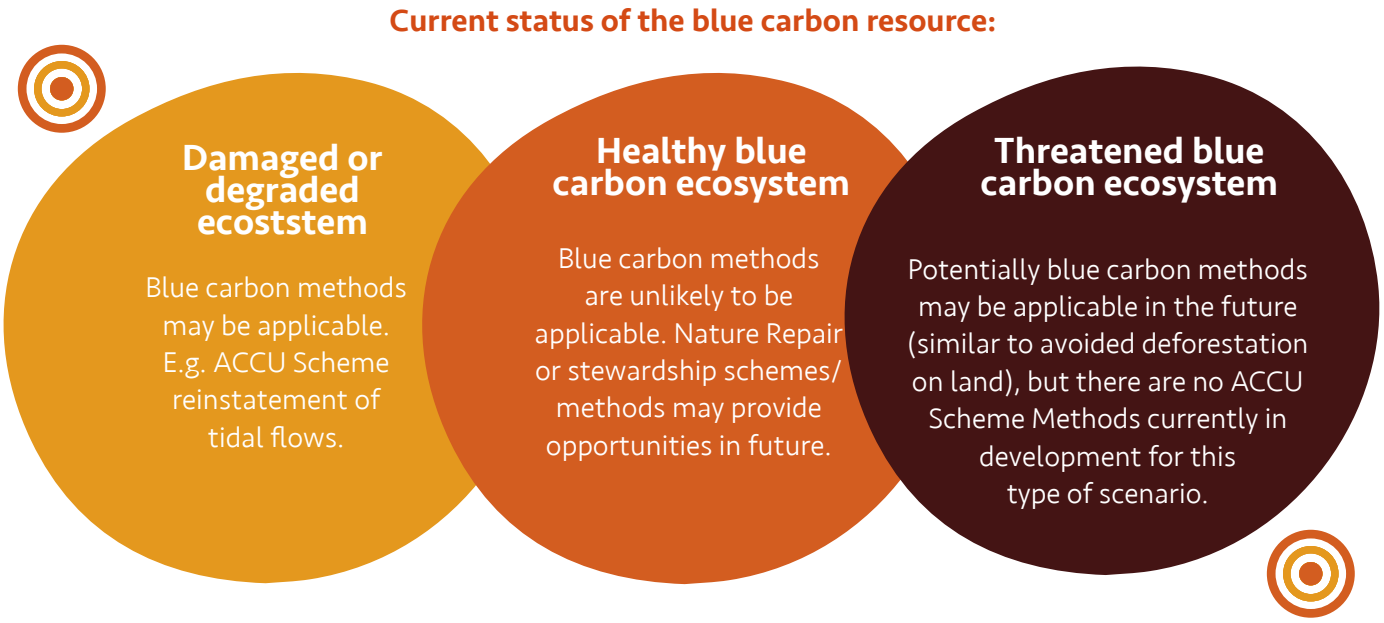


Figure 1: Understanding blue carbon opportunities

To help understand what opportunities exist, this section provides a brief overview of blue carbon methods under the ACCU Scheme, Verra, Gold Standard and Plan Vivo. It discusses different carbon markets, including the ACCU Scheme, voluntary carbon market, and Article 6 of the Paris Agreement. Finally, it provides a brief overview and examples of non-carbon nature-based programs that may provide investment in coastal ecosystems.

Blue carbon methods under the ACCU Scheme

The Australian Government's ACCU Scheme[9] is the main carbon market operating across Australia. The ACCU Scheme provides rules for developing and operating carbon projects and earning carbon credits (called ACCUs, the same are issued for both blue carbon and land-based projects).

There is currently only one blue carbon method available under the ACCU Scheme. Given the interest in this sector, it is likely that other ACCU Scheme blue carbon methods may also develop in the future. This summary covers the existing ACCU Scheme method, and two additional potential methods that are known to the authors as being in the research phase, but does not claim to be a comprehensive overview of all methods that may be either under development or being researched. Information that can help identify where in Australia different blue carbon methods may apply is contained in Section 5.

[9] This may also be referred to as the Emission Reduction Fund; ERF; Carbon Farming or the CFI.

Method snapshot: Tidal Restoration of Blue Carbon Ecosystems[10]	
Applicable areas	Current eligible activities would mostly restrict the Method to the coastal agricultural regions where there are significantly modified environments (barriers that restrict tidal movements).
Current Methods	Carbon Farming Initiative— Tidal Restoration of Blue Carbon Ecosystems Methodology Determination 2022
Activities	Reintroducing tidal flows to areas that have been drained (for example by sea walls, bunds, cane drains or other devices that restrict tidal flows) by removing the tidal restriction.
Eligibility	Land is eligible for inclusion in a blue carbon project if: 1) During the 7 years prior to your project application a tidal restriction mechanism has been in place that has excluded or restricted tidal flows from the land, and by removing or modifying the tidal restriction mechanism/s, the land will be impacted by tidal inundation; or, 2) During the 7 years prior to your project application, a tidal restriction mechanism has been in place that would exclude or restrict tidal flow from the land during the project's 25-year crediting period, and by removing or modifying the tidal restriction mechanism/s, the land will be impacted by tidal inundation during the crediting period. There are some ineligible project types, for example if the illegal draining of a wetland or illegal clearing of a native forest has occurred.
Other important considerations	When registering a project, a 25 or 100 year permanence period can be chosen during which carbon stored by the project must be maintained (sequestration project). Projects applying this Method have the potential to flood or partially flood land areas, which may result in the shifting of tidal boundaries. Organisations should consider the potential implications of this for native title (both existing and claimed) within the project area and neighbouring areas.
Crediting period	25 years.
Active registered projects	None listed on registry (at December 2023).

[10] This information has been updated from the ICIN 2022 report, 'Mapping the opportunities for Indigenous carbon in Australia'.

Method Snapshot: Avoiding disturbance of soils and vegetation and rehabilitating soils and vegetation of coastal wetlands influenced by non-native ungulates (Ungulate Method)	
Applicable areas	Scope to be confirmed, but likely application to coastal wetlands (salt marsh and mangroves) impacted by domestic and feral ungulates.
Current Methods	N/A: Research is being undertaken with the view to develop a Method in the future.
Activities	Management of non-native ungulate species (e.g., hard-hooved cattle, sheep, buffalo, pigs, goats, donkeys) that have significant negative impacts on soil and biomass carbon stocks, carbon sequestration and greenhouse gas fluxes in coastal wetlands as a consequence of trampling, pugging, rooting, and wallowing in coastal wetland soils and through grazing of coastal wetland vegetation. Management activities may include fencing of coastal wetlands to prevent their impacts and removal by other means (e.g. baiting in accordance with approved chemical use, culling through shooting from helicopters at times/areas that are known to be most effective, sterilisation and other emerging methods).
Eligibility	To be confirmed.
Other important considerations	It is currently unclear if this Method will be an emissions avoidance only method (no permanence obligations) or an emissions avoidance and sequestration method. When registering a sequestration project, a 25 or 100 year permanence period can be chosen during which carbon stored by the project must be maintained.
Active registered projects	None. In research phase.

Method Snapshot: Seagrass	
Applicable areas	Scope to be confirmed, but likely coastal seagrass meadows that have declined and require restoration.
Current Methods	N/A: Research is being undertaken with the view to develop a Method in the future.
Activities	Management activities may include seagrass restoration, including enhancing/supporting natural recolonization, seeding and purposeful planting.
Eligibility	To be confirmed.
Other important considerations	The activity may be limited to areas with evidence that seagrass coverage has declined. This may limit the applicability of the method to degraded seagrass ecosystems only, limiting applicability to the Indigenous estate. It is currently unclear if this will be a sequestration project or an emissions avoidance and sequestration project. When registering a sequestration project, a 25 or 100 year permanence period can be chosen during which carbon stored by the project must be maintained.
Crediting period	To be confirmed.
Active registered projects	None, in research phase.

Blue carbon methods outside of the ACCU Scheme

The ACCU Scheme is the Australian Government operated carbon market, and most Australian carbon projects operate under this Scheme. However, it is possible to undertake carbon projects in Australia under a voluntary carbon program other than the ACCU Scheme, and there are some examples of these types of projects in Australia.

Some of the reasons a project may choose a carbon program other than the ACCU Scheme include where the ACCU Scheme does not have a method applicable to the particular activity or geographic location, but there is a method available under another carbon program; or where the ACCU Scheme method is particularly complex or cost-prohibitive, and there is a less-complex or less-costly alternative available under another carbon program. In deciding which carbon program to apply, it is necessary to weigh the benefits and risks of each particular program, including the potential market and price for credits, with carbon credits selling at significantly different amounts under each different program.

The following section discusses blue carbon methods in existence under the three main voluntary carbon programs in operation internationally: Verra; Gold Standard; and Plan Vivo. This is not an exhaustive list of all existing international blue carbon methods, and in particular it is worth noting that a number of projects that identify as 'blue carbon' may not necessarily be occurring under any formally recognised carbon method. This may be because they are seeking to pilot new methods or are in fact targeting the 'nature repair market', which is discussed further below.

The Clean Energy Regulator has published a table of different carbon markets operating in Australia[11]. In addition, the Climate Change Authority has published a Review of International Offsets[12], which includes detailed information and analysis of the below schemes.

Verra Verified Carbon Standard

The Verified Carbon Standard is a voluntary international carbon program which has developed a range of methods, including three blue carbon methods. The Program sets out rules (standards) that projects must follow to reduce or remove GHG emissions and generate Verified Carbon Units (VCUs), which are tradable carbon credits. These can then be sold and bought on the voluntary carbon market, or potentially traded under Article 6 of the Paris Agreement (see further below). Verra is the organisation which administers the Verified Carbon Standard[13].

Of the three existing Verra blue carbon methods, only two have the potential to apply in Australia, with one method only applicable in the United States[14]. In addition to these existing methods Verra is undertaking extensive research and partnerships to progress future blue carbon methods.

[11] Available here: https://www.cleanenergyregulator.gov.au/PublishingImages/Carbon%20markets.pdf [accessed 15 August 2023].
[12] Available here: https://www.climatechangeauthority.gov.au/sites/default/files/Review%20of%20International%20Offsets%20-%20Report%20-%20August%202022.pdf [accessed 15 August 2023].
[13] For further information see https://verra.org/project/vcs-program/ [accessed 15 August 2023].
[14] See further https://verra.org/methodologies/vm0024-methodology-for-coastal-wetland-creation-v1-0/. [accessed 15 August 2023].

Method Snapshot: VM0033 Methodology for Tidal Wetland and Seagrass Restoration, v2.0[15]	
Applicable areas	This methodology is applicable to projects located globally, and to all tidal wetland systems (i.e., tidal forests (such as mangroves), tidal marshes and seagrass meadows).
Activities	Management activities may include any of the following, or combinations of the following: a) Creating, restoring and/or managing hydrological conditions (e.g., removing tidal barriers, improving hydrological connectivity, restoring tidal flow to wetlands, or lowering water levels on impounded wetlands) b) Altering sediment supply (e.g., beneficial use of dredge material or diverting river sediments to sediment-starved areas) c) Changing salinity characteristics (e.g., restoring tidal flow to tidally restricted areas) d) Improving water quality (e.g., reducing nutrient loads leading to improved water clarity to expand seagrass meadows, recovering tidal and other hydrologic flushing and exchange, or reducing nutrient residence time) e) (Re-)introducing native plant communities (e.g., reseeding or replanting) f) Improving management practice(s) (e.g., removing invasive species, reduced grazing)
Eligibility	Project activities must not be mandated by any law, statute, or other regulatory framework.
Other important considerations	This is not an ACCU Scheme method. Projects will be awarded VCUs which can be traded in the voluntary market.
Crediting period	20-100 years
Active registered projects	There are nine active projects, located in: Italy, China, Myanmar, Saudi Arabia, Mexico, United States and Pakistan.

[15] See further https://verra.org/methodologies/vm0033-methodology-for-tidal-wetland-and-seagrass-restoration-v2-0/ [accessed 15 August 2023].

Method Snapshot: VM0007 REDD+ Methodology Framework (REDD+MF), v1.6[16]	
Applicable areas	This methodology is applicable to forest lands, forested wetlands, forested peatlands, and tidal wetlands that would be deforested or degraded in the absence of the project activity.
Activities	Project activities include: - activities that reduce emissions from planned and unplanned deforestation. - activities that reduce emissions from forest degradation. - afforestation, reforestation, and revegetation activities. - activities that reduce emissions from planned and unplanned wetland degradation. - wetland restoration activities.
Eligibility	Must be evidence that areas would be degraded or deforested if the activity did not occur. Must exclude any areas included in an existing carbon offset program.
Other important considerations	This is not an ACCU Scheme method. Projects will be awarded VCUs which can be traded in the voluntary market. There is no precedent for applying this method in a 'developed' country such as Australia.
Crediting period	20-100 years.
Active registered projects	82 projects located across: Madagascar, Belize, Peru, Brazil, Indonesia, Paraguay, Bolivia, Brazil, Indonesia, Sierra Leone, Chile, Colombia, Papua New Guinea, Mozambique, Philippines, China, Honduras, Gambia, Mexico, Senegal, Guinea-Bissau, Tanzania.

Gold Standard

Similar to the Verified Carbon Standard, described above, the Gold Standard is a voluntary international carbon program which provides methods and a framework for how projects are designed, reviewed, implemented, and validated. One distinguishing feature of Gold Standard is that all projects must demonstrate a direct contribution towards the United Nations Sustainable Development Goals.

The program is administered by Gold Standard and SustainCERT, which acts as an independent project assessor.

Gold Standard carbon projects receive Verified Emission Reduction Units (VER), which can be traded on voluntary carbon markets. Gold Standard also develops non-carbon projects, which may be issued with a certificate relevant to the managed asset (e.g., Water Benefit Certificate).

Gold Standard has one existing afforestation/reforestation method that can be applied in Mangrove forests and is developing a mangrove restoration method that will credit increases in mangrove biomass[17].

[16] See further https://verra.org/methodologies/vm0007-redd-methodology-framework-redd-mf-v1-6/ [accessed 15 August 2023].
[17] See further https://www.goldstandard.org/ [accessed 15 August 2023].

Method Snapshot: Afforestation/Reforestation - Mangroves[18]	
Applicable areas	This methodology is applicable to lands that do not meet the definition of forest at project start but have the potential to become a mangrove forest.
Activities	Project activities include planting or assisted natural regeneration of mangroves.
Eligibility	90% of planting area must be planted with mangrove species.
Other important considerations	This is not an ACCU Scheme method. Projects will be awarded VERs which can be traded in the voluntary market.
Crediting period	30-50 years.
Active registered projects	None identified[19].

Plan Vivo

Plan Vivo is a third international voluntary carbon program that allows landholders to earn carbon credits from land restoration projects. Plan Vivo is focused on community land use projects, requiring not just carbon, but also demonstrable community and ecosystem outcomes.

Plan Vivo projects receive Plan Vivo Certificates that can be sold to investors. Plan Vivo has one existing blue carbon method and is undertaking targeted research and investment to develop further methodologies.

[18] See further https://globalgoals.goldstandard.org/standards/PRE-GS4GG-AF/ar-guidelines-mangroves.pdf [accessed 06 December 2023].

[19] While a number of projects exist under Gold Standards Afforestation/Reforestation method, the authors were unable to confirm which of these specifically applied to mangroves, and have therefore not listed any projects here.

Method Snapshot: Afforestation and reforestation of degraded mangrove habitats	
Applicable area	This methodology is applicable to mangrove forest.
Activities	Activities include afforestation, reforestation, and restoration of degraded mangrove areas.
Eligibility	Project proponents should be small-scale farmers or local community or land-users.
Other important considerations	This is not an ACCU Scheme method. Projects will be awarded Plan Vivo Certificates which can be traded in the voluntary market. A minimum of 60% of project revenues must go to local communities; biodiversity outcomes must be measured.
Crediting period	20 years.
Active registered projects	Three: Mikoko Pamoja, in Kenya; Tahiry Honko, in Madagascar; and Vanga Blue Forest, Kenya.

Buying and selling blue carbon credits

As mentioned above, blue carbon projects under the ACCU Scheme will generate ACCUs (the same credit type as land-based ACCU Scheme methods), which can be sold to the Australian Government; Australian compliance market under the Safeguard Mechanism; and to the voluntary carbon market, including under Australia's Climate Active program.

Blue carbon projects outside of the ACCU Scheme will generate carbon credits relevant to that scheme – for example, Verra projects generate VCUs, and Gold Standards projects generate VERs. These are not tradeable within the ACCU Scheme, but can be sold to the voluntary carbon market, including under Australia's Climate Active program.

The rules governing the sale of carbon credits generated in Australia into the international compliance market under Article 6 of the Paris Agreement have not yet been decided by the Australian Government. Further information on the voluntary carbon market, including Climate Active and the Paris Agreement is included briefly below.

Paris Agreement

Under the Paris Agreements[20] countries are required to set down their target in a document called a Nationally Determined Contribution (NDC). Countries can achieve their NDC through reducing emissions domestically and purchasing offsets (called Internationally Transferred Mitigation Outcomes or ITMOs) from another country.

Under Article 6 of the Paris Agreement, ITMOs are transferred at a national level (i.e., between two national governments) and require an agreement between the two governments providing that the country

[20] Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015.

surrendering/transferring the ITMO will reflect this as a deduction in its NDC account, which then enables the receiving party to count it towards its NDC, without risk of double counting.

There are currently no set rules on which carbon units can be exchanged for an ITMO. Ultimately it is an agreement between two countries, who are comfortable that the activity/unit represents genuine emissions reductions or sequestrations.

The Australian Government has not yet stated publicly whether an ACCU can be exchanged for an ITMO. While an ACCU may have the integrity to be traded internationally, the Australian Government will also need to consider the availability of domestic offsets, and its ability to meet its Paris target, and whether this will be negatively impinged by the export of ACCUs.

Both Verra and Gold Standard allow for the possibility of their units to be traded under Article 6 but leave it at the discretion of the host country and receiving country to determine how they will ensure compliance with Article 6 rules. The Australian Government has not yet provided public information on whether it will allow VCUs or VERs to be exchanged for an ITMO.

Voluntary carbon market

Separate to what is being negotiated between governments at an international level, companies are increasingly setting their own emissions reduction targets and reporting on their progress towards meeting them, including through their use of offsets. This is the voluntary carbon market. Buyers in the voluntary market may be individuals, companies, or organisations based in Australia or overseas.

Climate Active

Climate Active is an Australian Government program which enables organisations, buildings, events, precincts, and products and services to voluntarily certify as carbon neutral through accounting for all emissions under their control; verified reductions in emissions; and purchasing offsets for the remaining emissions[21]. Climate Active identifies what type of carbon units are eligible to be used as offsets. These currently include ACCUs, VERs; and VCUs. Plan Vivo Certificates are not currently eligible under Climate Active.

Coastal ecosystems and Nature Based Solutions

Nature-based solutions are activities that address social and environmental problems through actions that protect, sustainably manage, and restore ecosystems. Carbon projects are one example of a nature based solution, but other non-carbon environmental markets exist which are also of relevance to coastal ecosystems, such as biodiversity markets.

Biodiversity markets, similar to carbon markets, allow companies and individuals to compensate for the harm they cause to biodiversity by purchasing an 'offset' from a project that creates, restores, or protects ecosystems. While mandatory biodiversity offsets have existed in Australia for some time[22], the voluntary biodiversity market is much newer, with less standardization and a number of uncertainties that still need to be worked through. For example, carbon offset credits are typically measured in tons of carbon dioxide equivalent, while biodiversity offset credits are measured in a variety of units, such as hectares of habitat protected, or species protected.

[21] For more information see: https://www.climateactive.org.au/.

[22] i.e., for example, certain developments or activities require an offset under the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* or relevant State or Territory environmental legislation.

Broadly speaking, nature repair projects can be divided into three types of activities: restoration, protection, or stewardship, with significant overlap between the three.

- Restoration generally involves returning a degraded ecosystem to its natural state. This might involve, for example, replanting native mangroves, removing invasive species, or restoring natural hydrology (similar to carbon projects).
- Stewardship in nature repair markets refers to the active management of land and resources to improve or maintain biodiversity and ecosystem health. This might involve safeguarding threatened species, creating new habitat, or connecting fragmented habitats.
- Protection refers to preventing the loss or degradation of biodiversity and ecosystem health. This might involve conserving existing high-biodiversity areas; preventing development in sensitive areas; or managing human activities to reduce their impact on the environment.

For areas where coastal ecosystems are largely intact or healthy, stewardship or protection projects, as opposed to restoration, may offer the greatest opportunity for landholders to access the nature repair market. The following information is provided to illustrate some of these opportunities, but a full exploration of non-carbon market opportunities for coastal ecosystems is beyond the scope of this report.

Nature Repair Market Australia

The Nature Repair Market is a national level voluntary biodiversity offset market currently in development in Australia that would allow landholders and other eligible persons to generate certificates for projects that protect, manage, and restore ecosystems. Holders of certificates would be able to sell them to buyers, providing income to the project.

The Nature Repair Market is expected to operate alongside the ACCU Scheme. Landholders may be able to earn nature repair certificates from carbon projects that deliver biodiversity benefits. The Clean Energy Regulator will regulate the market to help align carbon and biodiversity markets[23].

The Australian Government is still in the process of developing and consulting on the design of the Nature Repair Market, including how Nature Repair projects can be 'stacked' or operate alongside carbon projects. It will be important for Indigenous people hoping to utilise both ACCU Scheme and Nature Repair Market projects to closely engage with the Australian Government to ensure the proposed design is both workable and accessible.

There are currently no existing methods under the Nature Repair market, as the scheme is still in the process of being developed by the Australian Government. As the market develops it is likely that coastal ecosystems, and activities that complement the existing and emerging ACCU Scheme blue carbon methods, will feature in the early methods.

Verra Sustainable Development Impact Standard

In addition to the Verified Carbon Standard, discussed above, Verra have developed the Sustainable Development Verified Impact Standard (SD Vista), an approach to certifying the benefits of social and environmental projects, with the aim of facilitating investment in sustainable development. SD Vista provides a method - set of rules and requirements - which projects must follow, and a process by which projects can

[23] Further information is available on the Department of Climate Change, Energy, the Environment and Water's website here: https://www.dcceew.gov.au/environment/environmental-markets/nature-repair-market [accessed 05 December 2023].

report, independently verify, and receive credits for, their outcomes. Two of the primary SD Vista methods relevant to coastal ecosystems are The Nature Framework and Coastal Resilience Credits.



Cairns, Australia, stock photo

SD Vista Nature Framework

The SD Vista Nature Framework method outlines how projects can generate Nature Credits, which represent one hectare equivalent of biodiversity improvement as a result of the project intervention. The Nature Framework also provides guidance on claims and communications and includes specific safeguards for risk mitigation, respect for human rights, ecosystem health, protecting property rights of customary rights holders, and engaging customary rights holders and other stakeholders. The Nature Framework is currently open to public consultation, with 18 pilot projects underway[24].

[24] See further https://verra.org/methodologies/nature-framework/ [accessed 06 November 2023].

Verra Coastal Resilience Credits

The SD Vista Methodology for 'Coastal Resilience Benefits from Restoration and Protection of Tidal Wetlands' is being developed to provide an approach to quantify the annual flood risk reduction (i.e., resilience) benefits of restoring and protecting coastal wetlands. This currently includes tidal marshes and mangroves but may be expanded to cover the restoration or protection of other coastal habitats such as coral reefs and oyster reefs[25].

Reef Credits Program

The Reef Credits Program is a voluntary market-based mechanism that provides financial incentives for landholders and businesses to take actions that improve water quality flowing into the Great Barrier Reef. The program was launched in 2020 and is administered by Eco-Markets Australia, an independent not-for-profit company. To participate in the program, projects must register with Eco-Markets Australia and meet the requirements of the Reef Credit Standard. If approved, projects can generate 'Reef Credits', a unit of measure that represent a quantifiable volume of nutrient or sediment prevented from entering the Great Barrier Reef catchment. Reef Credits can be purchased by businesses and individuals to offset their environmental impact[26].

Accounting for Nature

Accounting for Nature (AfN) is an environmental accounting framework that provides a common way for measuring and reporting the condition of an environmental asset (e.g., native vegetation, soil, rivers, fauna, estuaries, etc.). It has been used in the voluntary offset market; as part of the Queensland Government's Land Restoration Fund; and by investors seeking to track improvement in environmental condition. Projects apply an approved AfN method (can be developed by projects themselves) to track the condition of an environmental asset, such as a coastal wetland. The AfN framework provides guidance on project reporting, scoring, and verification processes (independent or third party)[27]. AfN may be useful for projects seeking a standardised approach to monitoring and reporting on the health of coastal ecosystems.

Ecosystem Accounts

Environmental-economic accounting helps to understand the condition of the environment, and its relationship with the economy. The Australian Government is investigating the application of the United Nations System of Environmental Economic Accounting[28] to develop a common national approach to environmental-economic accounting with the goal of providing coherent, comprehensive, and integrated accounts to support decision making by governments, business, and the community[29]. This work has included both the development of an Ocean Account[30] and a Guide to Measuring and Accounting for the Benefits of Restoring Coastal Blue Carbon Ecosystems[31].

[25] https://verra.org/methodologies/methodology-for-coastal-resilience-benefits-from-restoration-and-protection-of-tidal-wetlands/ [accessed 06 November 2023].
[26] For more information see: https://eco-markets.org.au/reef-credits/ [accessed 06 November 2023].
[27] For more information see: https://www.accountingfornature.org/ [accessed 06 November 2023].
[28] More information available here https://seea.un.org/ecosystem-accounting [accessed 06 December 2023].

Recap

When discussing blue carbon, some of the questions that may be useful to ask about a possible blue carbon opportunity include:

- Is this project proposed under an existing or an emerging blue carbon method?
- If it is an emerging method, what are the timeframes before it is available?
- Does the blue carbon method exist under the ACCU Scheme, or another carbon program?
- Is this not a blue carbon project, but actually a 'Nature Repair' project?
- What type of carbon credits or certificates will be awarded, and what is the market for these?

This Part has explored what blue carbon opportunities exist in Australia, as well as other non-carbon market opportunities for coastal ecosystems.

- Blue carbon ecosystems are areas of mangroves, salt marsh or sea grass meadows.
- Blue carbon projects are very similar to other carbon projects, like savanna burning, except that they occur on the coast and in coastal waters.
- Carbon 'stock' is different from 'abatement' opportunity. Generally, for a blue carbon project to occur you need some form of decline in the ecosystem, with an opportunity to improve it.
- Carbon projects can occur under the Australian Government ACCU Scheme, or under another voluntary carbon program.
- At the moment, there is only one blue carbon method under the ACCU Scheme. This is for removing tidal barriers and letting saltwater back into areas from which they have been excluded.
- Two research projects (potentially more that are unknown to the report authors) are investigating the potential for future blue carbon methods for the following activities:
  - Restoring seagrass.
  - Removing ungulates animals from coastal wetlands.
- There are three main voluntary carbon programs (Verra, Gold Standard and Plan Vivo). These have existing methods for coastal wetland restoration and mangrove restoration and protection.
- There are also market opportunities outside of carbon, in the broader nature repair market. These include biodiversity offsets, or projects under schemes such as Reef Credits or SD Vista.
- A project might combine a carbon project with a biodiversity project to increase its financial viability.
- For areas where coastal ecosystems are largely healthy, biodiversity 'stewardship' or 'protection' projects may provide an opportunity to access the nature repair market in the future.

[29] See for more information https://eea.environment.gov.au/accounts/ecosystem-accounts [accessed 06 December 2023].
[30] Available here: https://eea.environment.gov.au/accounts/ocean-accounts [accessed 06 December 2023].
[31] Available here: https://www.dcceew.gov.au/sites/default/files/documents/draft-guide-coastal-blue-carbon-benefits.pdf [accessed 06 December 2023].

3. Coastal land interests and key parties

Another complexity of blue carbon projects is unpacking the overlapping rights and interests in the project area, which in turn informs who holds the legal right to undertake the project and/or receive the carbon credits, who might be impacted by any intervention, and what other interest holders, if any, need to be consulted or provide permits and consent.

In this section, we provide an overview of different interests that may arise in the intertidal zone and adjoining waters, and how these may interact with blue carbon projects. However, as indicated by Figure 2, understanding different land interests is just one piece in unpicking all the different players in a blue carbon project.

In addition to legal right holders and eligible interest holders under the ACCU Scheme, it is also necessary to consider which jurisdiction of government and/or agencies might need to be involved in issuing permits or approvals and what other right or interest holders could be impacted, for example, native title holders, neighbouring landholders, or even commercial fishing operators, depending on the type of activity and project boundaries.

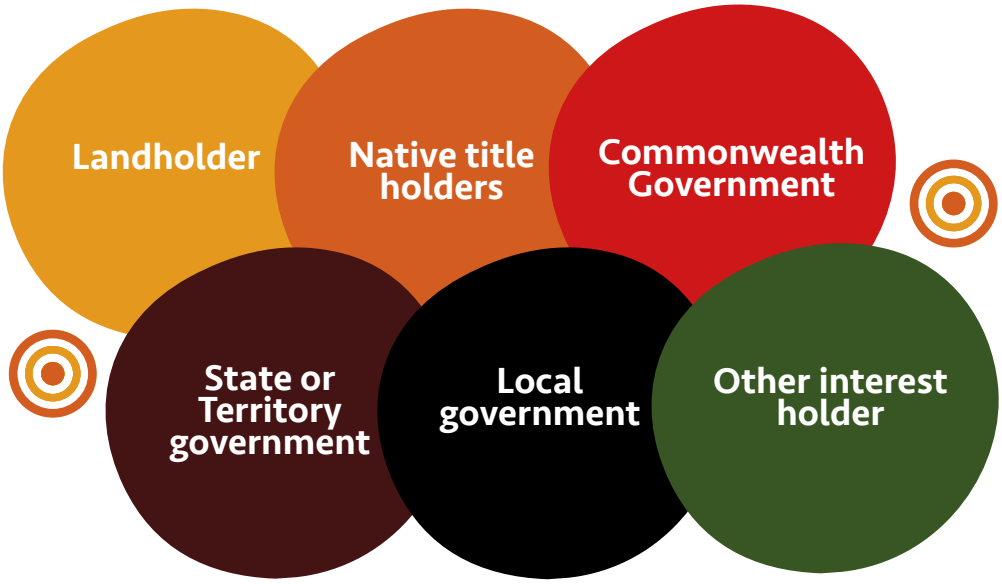


Figure 2: Summary of potential Parties involved in a blue carbon project.

For this reason, blue carbon projects will require a high degree of collaboration between different interest holders and are most likely to succeed where this collaboration is established from the outset.

Table 1 provides an overview of some of the different types of land interest that may arise in the coastal zone. The purpose of this table is to illustrate the different types of interests and how they may change depending on project location. It is important to note that the rights set out in the Table are not absolute and may overlap with other rights holders. The information is of a general nature and is not a comprehensive analysis of all rights and interests that may apply. It does not constitute legal advice. Projects seeking specific information must seek individual expert advice.

Land interest	Relationship to blue carbon[32]
Freehold	Freehold land generally gives owners an exclusive right to undertake certain activities within their property boundaries. Generally, the owner of freehold land where a carbon project occurs will normally have a legal right in relation to the project and/or an eligible interest under the ACCU Scheme. The coastal boundary of freehold land varies for different states and territories as follows: • Queensland: determined by reference to a water mark or natural feature subject to tidal influence[33]. • Western Australia: Ordinary high-water at spring tides[34]. • South Australia, Victoria, Tasmania, Northern Territory and New South Wales: mean high water mark[35]. Understanding where the coastal boundary of the property is, and how this aligns with the blue carbon project boundary is an important step for any project, as this will help to identify any other legal right or eligible interest holders. A landholder should consider what the activities are that need to occur as part of the project, and whether any permissions or licences are required to undertake these.
Leasehold	The rights of a land leaseholder to undertake a blue carbon project will depend on the lease boundaries, as well as the terms and scope of the individual lease, among other things. Generally, a land leaseholder may expect to hold an eligible interest where an ACCU Scheme project overlaps with their lease area. Whether they also have a legal right will depend on the individual lease and the specific activities involved in the project. The coastal boundaries of leasehold properties vary depending on the type of lease and the State and Territory where the lease is located. Identifying these boundaries involves looking at the lease document and any governing legislation to identify how the property boundaries align with the blue carbon project boundaries. The rights of leaseholders will also be set out in the lease document and any governing legislation. Identify what the project activities are and whether these are permitted as part of the existing lease. Not all carbon activities will be considered a change of land use.

[32] Please note that at the time of writing this document (November 2023) the ACCU Scheme is undergoing a review, the results of which may impact upon the information provided here, particularly in relation to Crown and other's eligible interest.
[33] *Survey Mapping Infrastructure Act 2003 (QLD).*
[34] Land Administration Act 1997 (WA).
[35] *Attorney-General v Chambers 1954*; for Northern Territory see *Land Title Act 2000 (NT)*; for New South Wales see *Surveying and Spatial Information Regulation 2017* (NSW).

	However, where the activities are outside the scope of the lease, a diversification permit, lease variation, or licence may be required. Regardless of whether the leaseholder has the right to do the project, for ACCU Scheme projects, they may still hold an eligible interest and, depending on the lease, the relevant State or Territory Minister may also hold an eligible interest[36]. Where there are native title rights over the area, this may also have an impact on legal right and eligible interest (see below). In addition, any required changes to the lease may give rise to additional processes under the *Native Title Act 1993 (Cth)*.
Aboriginal Trust Land	Aboriginal land is governed by different legislation in each of the state and territories. The governing legislation, combined with the individual property documents can help determine: • what the property boundaries are, and how they align with the blue carbon project area. • what activities are permitted, and if these include the activities required to undertake the blue carbon project. • who holds an eligible interest in the area, including whether the relevant Crown Minister holds an eligible interest[36]. As a general rule of thumb, the relevant land trust/holding body may have a legal right in relation to a project that falls on land trust land and an eligible interest under the ACCU Scheme, but again this may depend on the specific governing legislation and individual property documents.
	Australian Capital Territory The *Aboriginal Land Grant (Jervis Bay Territory) Act 1986 (Cth)* vests land in the Jervis Bay area in the Wreck Bay Aboriginal Community Council. The coastal boundary of the land is the high water mark. The waters immediately to the south of the Wreck Bay Community lands are managed as part of the NSW Jervis Bay Marine Park. All the waters of Jervis Bay are subject to the *Control of Naval waters Act 1918*. Any blue carbon project would require a negotiation between all affected parties.
	Northern Territory Aboriginal Freehold Land Aboriginal freehold land is governed by the *Aboriginal Land Rights (Northern Territory) Act (1976)*. The land is formally held by an Aboriginal land trust. In relation to legal right to do projects, the CER treats the relevant Aboriginal Lands Trust as having the same rights as an owner of freehold land, that is, to do a project on Aboriginal freehold land, the person doing the project must be an agent or acting with the permission of, or under licence from, the relevant Land Trust or leaseholder[37].

[36] Part 3, Division 8, *Carbon Credits (Carbon Farming Initiative) Act 2011 (Cth)*.
[37] See https://www.cleanenergyregulator.gov.au/ERF/Pages/Forms%20and%20resources/Regulatory%20Guidance/Emissions%20avoidance%20guidance/Legal-right-to-carry-out-projects-on-Aboriginal-land-in-the-Northern-Territory-subject-to-the-Aboriginal-Land-Rights-(Nort.aspx

Aboriginal Trust Land	To undertake a carbon project on Aboriginal Freehold land, an agreement between a proponent, the relevant Indigenous land council for the area, and all land trusts in the area granting the right to conduct activities on Aboriginal freehold land must be negotiated[38]. The coastal boundary of Aboriginal freehold land is the 'low water mark' and includes the right to control access to waters overlying Aboriginal Land[39]. Depending on the type of blue carbon project, this may mean that the entire project falls within the boundaries of Aboriginal Land. Under the ACCU Scheme, the Aboriginal Land Commissioner may have an eligible interest in a carbon project[40], in addition to the Crown having a legal right should the project extend beyond the low tide mark.
	Western Australia: Aboriginal Reserve Under the *Aboriginal Affairs Planning Authority Act 1972 (WA),* Aboriginal reserve land is held by the Crown on trust for Aboriginal people. To determine the coastal boundaries of Aboriginal reserve lands, it is necessary to refer to the original gazette or reserve document. In some case, it may extend to low water mark, which means for some blue carbon projects, the entire project may fall within the boundaries of Aboriginal land. For ACCU Scheme projects, the Crown lands Minister may have an eligible interest[41], in addition to a legal right should the project extend into Coastal Waters, this would need to be confirmed on a project by project basis.
	South Australia: Aboriginal Land Trust land In South Australia there are three Acts which provide freehold tenure for Aboriginal People[42]. Under the Act, land is held by the Trust and leased back to the relevant Aboriginal community. The coastal boundaries of the area will need to be determined by reference to the lease and the governing legislation. For ACCU Scheme projects, the Crown lands Minister may have an eligible interest[43], in addition to a legal right should the project extend on to State lands.
	Queensland: Aboriginal and Torres Strait Island lands In Queensland, land trust land is held by Aboriginal Corporations or land trusts[44]. The coastal boundaries of land, which can include inter-tidal areas, will be set out in the individual grant, transfer, or title. For ACCU Scheme projects, the Crown lands Minister may have an eligible interest[45], in addition to a legal right should the project extend on to State lands.

[38] Section 19 *Aboriginal Land Rights (Northern Territory) Act 1978 (Cth).*
[39] *Aboriginal Land Rights (Northern Territory) Act 1978 (Cth); Northern Territory v Arnhem Land Aboriginal Land Trust (2008) 236 CLR 24 (Blue Mud Bay Case).* Note these rights may be modified by negotiated access arrangements and need to be checked and confirmed on an individual project basis.
[40] Sections 44, 45 *Carbon Credits (Carbon Farming Initiative) Act 2011 (Cth).*
[41] Ibid.
[42] *Aboriginal Lands Trust Act 2013* (SA), *Anangu Pitjantjatjara Land Rights Act 1981* (SA); *Maralinga Tjarutja Land Rights Act 1984* (SA).
[43] Sections 44, 45 *Carbon Credits (Carbon Farming Initiative) Act 2011 (Cth).*
[44] See *Aboriginal Land Act 1991* (QLD); *Torres Strait Islander Land Act 1991* (QLD).
[45] Sections 44, 45 *Carbon Credits (Carbon Farming Initiative) Act 2011 (Cth).*

Aboriginal Trust Land	**New South Wales: Aboriginal land rights land** The *Aboriginal Land Rights Act 1983* (NSW) allows Indigenous land councils to claim certain Crown land as freehold title on behalf of Aboriginal people[46]. The coastal boundaries of the land will depend on the individual claim. For ACCU Scheme projects, the Crown lands Minister may have an eligible interest[47], in addition to a legal right should the project extend on to State lands.
	Victoria: Aboriginal Land Act[48] and Traditional Owners Settlement Act Land trust land in Victoria is limited to a few discrete parcels. Careful consideration of property boundaries as well as whether a blue carbon project falls within the purpose of the trust would be necessary. In addition, Victoria has developed the *Traditional Owner Settlement Act 2010 (Vic)* which provides an out-of-court settlement process to recognise traditional owners and certain rights on Crown land. The coastal boundary of the lands, and whether it includes a right to undertake blue carbon projects would depend on the individual agreement between the State of Victoria and Traditional Owner group. Similarly, the individual terms of the agreement would need to be explored to identify the relevant interest of any Crown Ministers under the ACCU Scheme.
	Tasmania: Aboriginal Lands The *Aboriginal Lands Act 1995 (Tas)* vested 12 areas in the Indigenous land council of Tasmania to be held on trust and sustainably managed for the benefit of Aboriginal people. For ACCU Scheme projects, the Crown lands Minister may have an eligible interest[49], in addition to a legal right should the project extend on to State lands.
Exclusive Possession Native Title Land	Exclusive possession native title gives strong rights to undertake carbon activities on land. This is expressly recognised by the ACCU Scheme, which deems PBC's who hold exclusive possession native title to be the Project Proponent under certain circumstances[50]. The tidal boundary of the native title area will depend on the individual determination. Where native title overlaps with another land tenure, there may be multiple legal rights at play, as well as eligible interests, requiring negotiation and agreement between Parties prior to project registration. In addition to rights under the ACCU Scheme, native title holders may also have rights under the *Native Title Act 1993 (Cth)* arising from the activities or permissions required to undertake a blue carbon project.

[46] See https://www.aboriginalaffairs.nsw.gov.au/land-rights/land-claims/ [accessed 31 October 2023].
[47] Sections 44, 45 *Carbon Credits (Carbon Farming Initiative) Act 2011 (Cth).*
[48] See *Aboriginal Lands Act 1970 (Vic).*
[49] Sections 44, 45 *Carbon Credits (Carbon Farming Initiative) Act 2011 (Cth).*
[50] Section 46 *Carbon Credits (Carbon Farming Initiative) Act 2011 (Cth).*

Non-Exclusive Possession Native Title land	Non-exclusive possession native title rights will generally exist where other non-Indigenous property rights are also in existence. The scope of rights granted, and the coastal boundary, will be set out in the individual determination. Some coastal groups have native title recognised over the inter-tidal zone and extending into adjacent waters. Generally, these rights are of a non-exclusive nature, as exclusive possession native title is considered inconsistent with other common law rights regarding marine access and navigation[51]. Under the ACCU Scheme, non-exclusive possession native title holders have an eligible interest in projects occurring within their determination area[52] and must provide consent before a project can receive ACCUs. Depending on the individual determination, these may also amount to legal rights under the ACCU Scheme, requiring negotiation and agreement prior to project registration. In addition to rights under the ACCU Scheme, native title holders may also have rights under the *Native Title Act 1993 (Cth)* arising from the activities or permissions required to undertake a carbon project.
Conservation land	Conservation land can be separated into public and privately managed conservation land. Generally, public conservation land will be some form of Crown land. The coastal boundary will be determined by the individual property document or relevant legislation, and the ability to do carbon projects may depend upon the policy as well as legal settings within the individual State or Territory. Precedent exists for State and Territory governments jointly undertaking carbon projects with Indigenous groups on conservation land[53]. This could represent an important opportunity for policy development, ensuring blue carbon projects on conservation land are undertaken collaboratively with Indigenous people. For private conservation land, the underlying tenure will fall within one of the above property categories.
Joint management	Joint managed conservation areas are increasingly common. Tenure will vary, and there may be native title rights over the area, and/or an Indigenous Land Use Agreement. A blue carbon project in these areas will require agreement between all relevant parties, with a clear policy incentive for benefits (and potentially ownership) to flow to Indigenous parties.
Indigenous Protected Areas (IPA)	IPAs are areas of land and sea country managed by Indigenous people. However, they are not a form of tenure, and therefore have no bearing on legal right or eligible interests in relation to a carbon project. The existence of an IPA is generally indicative that there is some form of Indigenous ownership, and/or strong Indigenous management of the area and may be useful to reference if Indigenous people are seeking to make a case for ownership or registration of a blue carbon project.

[51] For a more detailed discussion, see: https://nativetitle.org.au/learn/native-title-and-pbcs/native-title-rights-and-interests [accessed 06 December 2023].
[52] Section 45A *Carbon Credits (Carbon Farming Initiative) Act 2011 (Cth)*.
[53] See for example Jawoyn Fire 2 Project. More information available here: https://www.jawoyn.org.au/wp-content/uploads/2023/05/jawoyn_fire_project.pdf [accessed 5 December 2023].

Indigenous Land Use Agreement (ILUA)	An ILUA is a contract or agreement between native title parties and others about the use and management of areas of land and/or waters. These can be made over areas where native title has been determined to exist, over claim areas or in areas where no claim has been made[54]. There is a publicly available registry of ILUAs, which shows where an ILUA is in place or not, the parties to the ILUA and the duration of the ILUA, among other things. However, the registry does not include specific details of what the ILUA is about, and therefore is not always helpful in determining if the ILUA is of relevance to a carbon project (for example, ILUAs can range in content from agreements regarding use of a gravel pit through to more complex subjects such as the establishment of joint managed conservation areas). In the absence of a native title determination, an ILUA may provide native title parties with specific rights or interests in relation to a blue carbon project, however, this would depend entirely on the individual terms of the agreement.
Coastal waters	Coastal Waters is a belt of water starting at the edge of the land interest and extending three nautical miles to sea. Jurisdiction over the water column and the subjacent seabed is vested in the adjacent State or Territory[55].
Territorial Sea	The Territorial Sea is a belt of water from three nautical miles to 12 nautical miles. The Australian Government has jurisdiction over the territorial sea, its seabed and subsoil, and to the air space above it. The major limitation on Australia's exercise of sovereignty in the territorial sea is the right of innocent passage for foreign ships[56].
Exclusive Economic Zone	The Exclusive Economic Zone (EEZ) is an area from 12 nautical miles to 200 nautical miles. In the EEZ, Australia has rights of exploring and exploiting, conserving, and managing all natural resources of the waters, the seabed, and its subsoil[57].

Table 1: Interests in coastal lands and waters.

[54] See the National Native Title Tribunal website for further information. Available here: http://www.nntt.gov.au/ILUAs/Pages/default.aspx [accessed 06 December 2023].
[55] The arrangements for the management of offshore resources such as fisheries and petroleum, are defined by the Offshore Constitutional Settlement (OCS). The principal legislation implementing the OCS are the *Coastal Water (State Powers) Act* 1980, *Coastal Waters (State Title) Act* 1980, *Coastal Waters (Northern Territory Powers) Act* 1980 and the *Coastal Waters (Northern Territory Title) Act* 1980. See further Australian Government Geoscience Australia, *Maritime Boundary Definition*, https://www.ga.gov.au/scientific-topics/marine/jurisdiction/maritime-boundary-definitions accessed 13 Sep. 23.
[56] Ibid.
[57] Ibid.

Recap

In this Part we have provided an overview of how different property interests may give rise to different types of interests within blue carbon projects. This information was general only, and individual projects should seek specific advice on project boundaries, land tenure, and regulation and permit requirements. Some of the questions that projects need to navigate include:

- what are the project boundaries, and how do these interact with property and coastal land boundaries.
- what is the type of property interest, and does it support the operation of a blue carbon project.
- who has a legal right to undertake the project and receive the carbon credits (may be multiple parties).
- who holds an eligible interest under the ACCU Scheme in relation to the project.
- are there any other interest holders (e.g. neighbouring affected properties) that need to be engaged.
- what permissions or approvals are required to undertake the project, from whom and what are the cost and timeframes for obtaining these.

There will frequently be multiple and overlapping right holders within a blue carbon project area. Engaging collaboratively and early with all interest holders may be an important factor in project success.

4. Indigenous rights and interests

Indigenous rights and interests in relation to ACCU Scheme blue carbon projects arise in the same way as for other carbon projects. That is, depending on the type of land tenure or interest, Indigenous rights or interests may include:

- a legal right to undertake a blue carbon project, arising from an interest in the land or resource.
- a recognised interest in the project, meaning that consent must be provided before the project can receive any ACCUs[58].
- procedural or other rights arising under the *Native Title Act 1993 (Cth).*
- additional rights arising under law or contract.

Further information on how some of these rights and interests operate can be found in the ICIN guidance on Indigenous Rights and Interests in Carbon[59].

In this section, we introduce maps that have been developed for the purpose of informing where Indigenous people may have rights and interests to undertake blue carbon projects.

While there are a number of ways that Indigenous rights in carbon may arise, it is important to note that these rights are not absolute. i.e., even if Indigenous people have a legal right to undertake a carbon project, they still need to comply with any applicable laws or regulations and obtain consent from any other right or interest holders. As explained further above, frequently blue carbon projects will straddle multiple tenures and therefore involve multiple right holders, requiring careful negotiation between all parties prior to the start of any project.

Another important limitation on Indigenous rights is in relation to non-ACCU Scheme projects, for example Verra or Gold Standard. While the ACCU Scheme recognises the unique importance of Indigenous native title interests and provides consent rights where projects occur on native title lands, outside of the ACCU Scheme, these rights will only arise if triggered under the *Native Title Act 1993 (Cth)*. i.e., Verra or Gold Standard do not provide for eligible interest holder consent, though they do provide some level of safeguard for Indigenous rights. In order to ensure Indigenous rights are equally recognised and protected in relation to all carbon projects, this is an area that would benefit from input by the Australian Government.

It is important to note that the maps presented over represent the area where Indigenous people can engage in the carbon market. This is because engagement in a carbon project also requires the availability of a suitable ACCU Scheme Method. There are large areas (in a blue carbon context, particularly Northern Australia) where Indigenous rights to undertake a project are strong, but no existing Methods apply.

It is also important to reiterate that the maps do not depict the full extent of Indigenous interests across Australia's land and sea country. For the purposes of this report, we have identified Indigenous interests through the narrow lens of legal mechanisms for Indigenous engagement in the ACCU Scheme. However, we note that all areas of country, including those not identified within the maps presented in this document, still maintain Indigenous interests and connections. Indeed, the Indigenous estate extends over the entirety of Australia and has never been ceded or extinguished.

[58] See Division 8, *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth).
[59] Available here: https://assets.nationbuilder.com/icin/pages/185/attachments/original/1664414311/6._Indigenous_Rights_and_Interests.pdf?1664414311 [accessed 06 December 2023].

Mapping Indigenous rights and interests in carbon and nature repair

The *'Indigenous rights and interests (carbon and nature repair) (ICIN 2023) Dataset'* (referred to from here forward as the '2023 Map', identifies Indigenous rights and interests including for coastal and marine ecosystems[60] where future blue carbon or nature repair projects may be undertaken.

The 2023 map and dataset were produced through reviewing, updating and expanding the ICIN (2022) Dataset[61] produced as part of the ICIN 2022 report, 'Mapping the opportunities for Indigenous carbon in Australia'.

The 2023 map identifies and classes Indigenous' rights according to the legal mechanisms for potential engagement in the carbon market. Indigenous rights have been grouped into seven classes based on the relative 'strength' of that right in relation to the ACCU Scheme, as set out in Table 2, below. Each parcel of land is only assigned one class, that being the 'highest' class identified for that parcel.

Two maps are then presented, one without Indigenous Land Use Area's (ILUA) displayed and one with. The reasoning for this is that the specific details of what each ILUA relates to is generally not publicly known, and therefore there is a lot of uncertainty what an ILUA will mean for carbon rights. Rights or interests in relation to a carbon project would depend entirely on the individual terms of each ILUA agreement. The authors have therefore decided to present two versions of the Map.

More detail on the process, the data layers and the classification system used to create the 2023 Map can be accessed on request to ICIN.

Also note that the 2023 ICIN dataset is freely available to view on the Seamap Australia website (https://seamapaustralia.org/) and a digital copy of the file can be requested from ICIN.

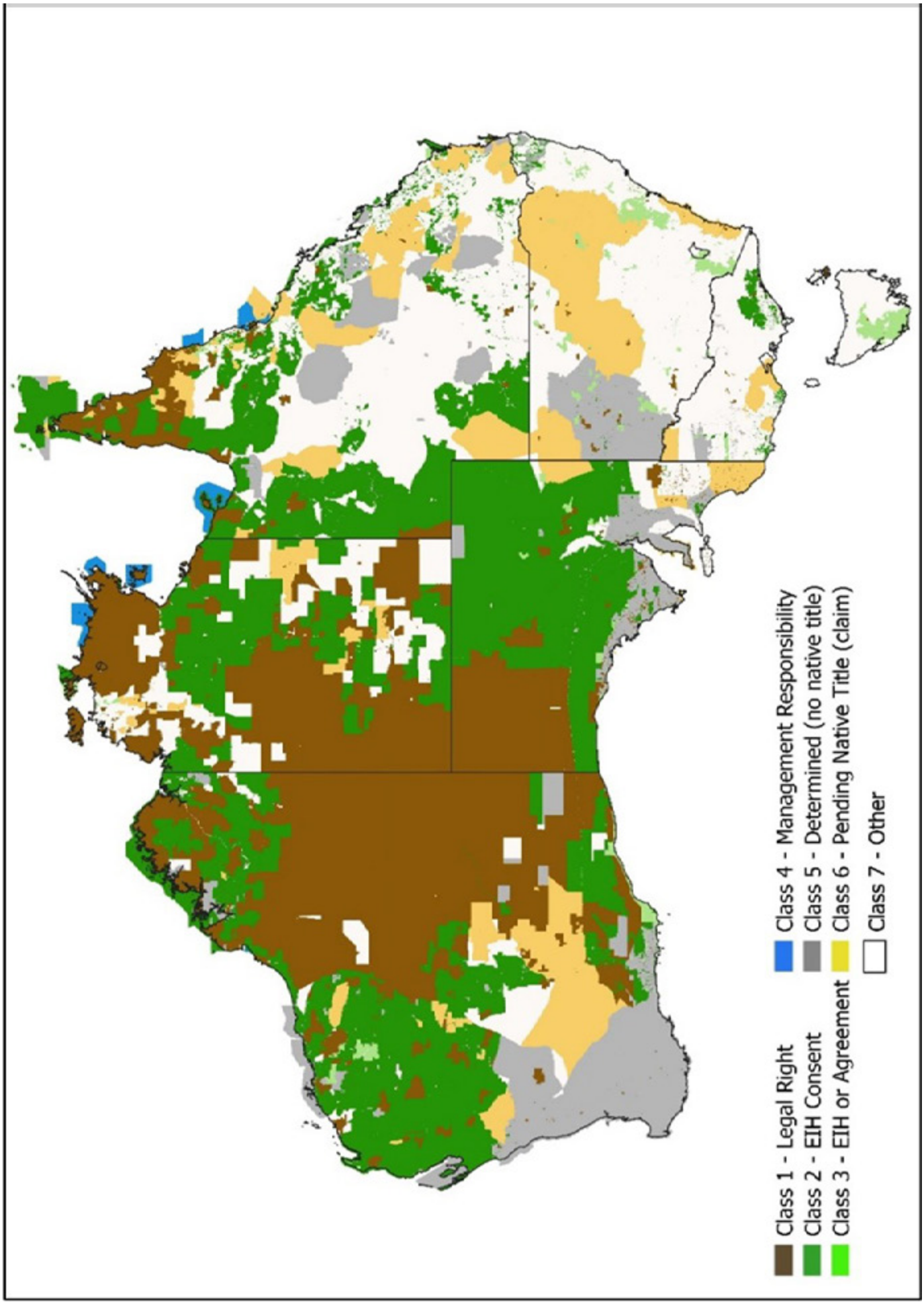


ICIN member Bawinanga Aboriginal Corporation, ICIN image

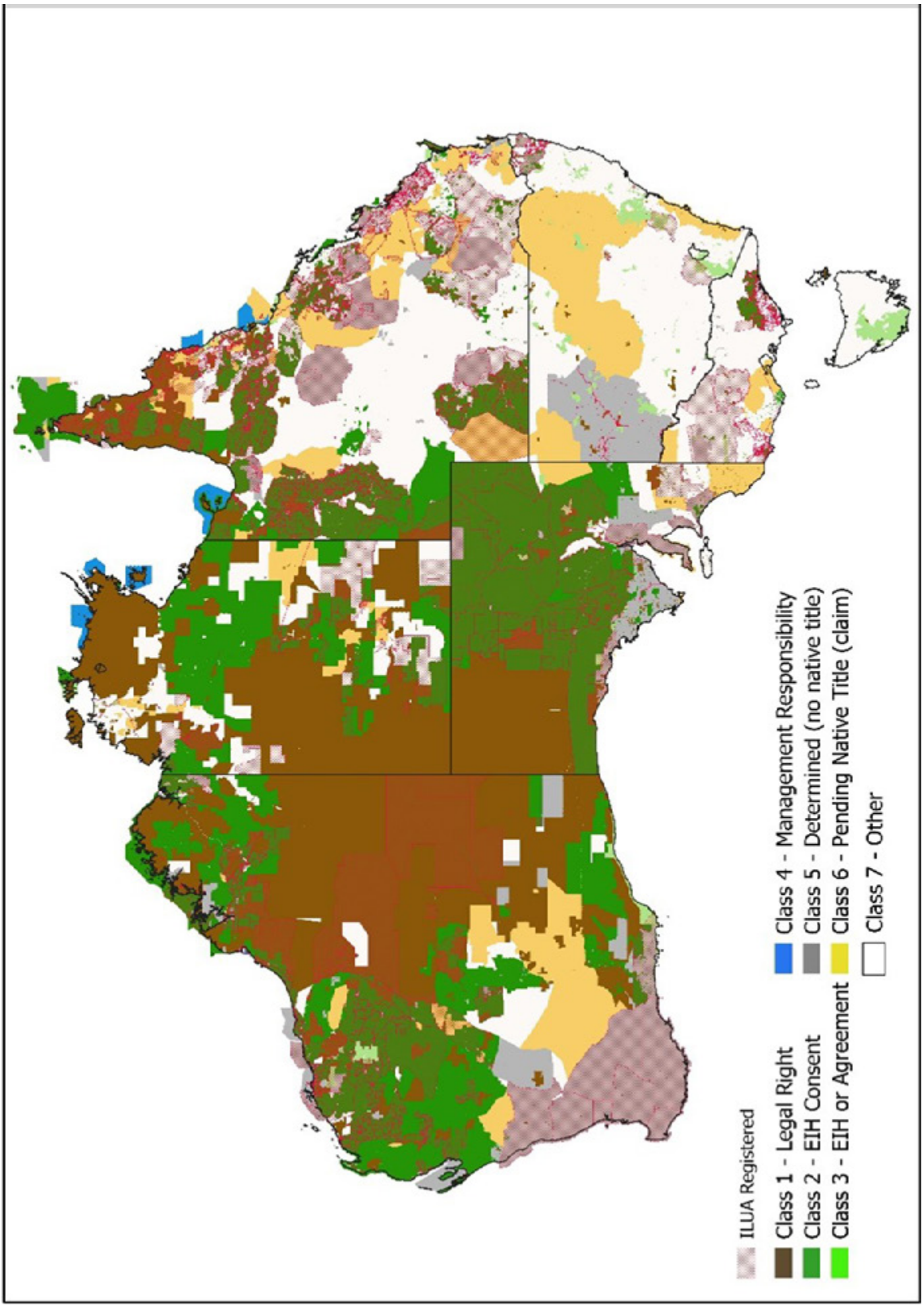
[60] For completeness purposes, the map includes the whole of Australia, and has not been 'clipped' to the coastline.
[61] The 'ICIN (2022) Dataset' refers to the GIS Raster file that accompanied the ICIN 2022 report, 'Mapping the opportunities for Indigenous carbon in Australia'. Available for download at https://www.icin.org.au/resource_files.

Class	Applicable tenure or interest	Class Description
1 - Legal Right	Exclusive possession native title, and Indigenous owned land (including jointly managed parks with underlying indigenous tenure) or land held by others for Indigenous purposes	Exclusive possession native title, and Indigenous owned land (including jointly managed parks with underlying indigenous tenure) or land held by others for Indigenous purposes
2 - EIH Consent	Non-exclusive possession native title	Indigenous people are an Eligible Interest Holder under the ACCU Scheme.
3 - EIH or Agreement	Joint/co-managed parks where indigenous people do not own the underlying tenure	For this Class, legal right to undertake a project might be established but should not be assumed, as is the case for EIH consent rights. Some other formal agreement may be required. Park specific.
4 - Agreement. Management responsibilities	Sea Country Indigenous Protected Areas	Indigenous management responsibilities recognised by Commonwealth via declared community led Protected Areas, although these are not legally recognised rights (legal or consent rights) under the ACCU Scheme, hence some other formal agreement may be required.
5 - Agreement. Determined (no native title)	Native Title Determination made, determined to either be 'extinguished' or 'does not exist'.	This Class consists of areas where Indigenous peoples' rights are currently not formally recognised under the ACCU Scheme through native title, however rights may exist via other mechanisms (i.e. Indigenous Land Use Agreements).
6 - Agreement. Pending Native Title	Pending native title claims that have been accepted for registration.	Indigenous people have future/emerging rights that may give rise to a legal right or eligible interest in the future or position them to negotiate certain rights or benefits from a carbon project.
7 - Agreement. Other	Other – all remaining areas	This Class consists of areas where Indigenous peoples' rights in regard to carbon projects are currently not formally recognised in law/formal agreements (at least not in publicly available information).

Table 2: Classification of Indigenous land and carbon interests.



Map 1: Indigenous rights and interests (carbon and nature repair) (ICIN 2023)



Map 2: Indigenous rights and interests (carbon and nature repair) (ICIN 2023), with ILUAs displayed.

Analysis of the Indigenous rights and interest's dataset

The 2023 Map provides important insight into the intersection of Indigenous rights and interests and blue carbon opportunities. In regards to the coastline:

- Indigenous people hold legal right to undertake carbon projects (Class 1) along 39% of the Australian coastline, however 96% of this occurs in just three jurisdictions: the Northern Territory, Queensland, and Western Australia.
- More broadly, Indigenous people have legally recognised interests (Class 1, 2 and 3) along 66% of the Australian coastline, demonstrating the imperative that they are actively engaged in all blue carbon projects.
- In the Northern Territory, Indigenous people hold the legal right to undertake a project along 82% of the coastline (Class 1).
- Within New South Wales, 27% of the coast is subject to a pending native title claim (Class 6), indicating the imperative to address the rights of native title claimants within the ACCU Scheme.

In regards to sea country:

- Indigenous people have management responsibility (Sea Country IPA) for over 44,000 km2. This management responsibility is over areas where Indigenous people would not otherwise have rights and interests recognised under the ACCU Scheme and demonstrates the need for Indigenous engagement in blue carbon projects beyond what is currently provided for under the ACCU Scheme.
- Indigenous people have consent rights (Class 2 and 3) over approximately 118,705 km2 of sea country, almost entirely occurring within Queensland, the Northern Territory and Western Australia.
- Of the 19,157 km2with pending sea country native title claims (Class 6), 62% is within Queensland 17% within South Australia, and 14% within New South Wales.
- Of the sea country that has had native title determined as extinguished (Class 5), 88% is in Western Australia.

More broadly, in regards to the Australian landmass:

- 76% of mainland Australia where Indigenous people hold legal right to run a carbon project (Class 1), occur outside of the Savanna. These lands are largely excluded from participating in the ACCU Scheme due to a lack of applicable Methods for non-agricultural/pastoral lands.
- 28% of the Australian land mass is identified as having legal right for Indigenous people to undertake ACCU projects (Class 1), occurring almost entirely (89%) within the States of Western Australia, Northern Territory and Queensland.
- A further 29% of lands are identified as having consent requirements (Class 2 and 3).
- Therefore, Indigenous people have legally recognised rights in relation to carbon across 58% of Australia (Class 1, 2 and 3). This is an increase of 2% from the ICIN 2022 Report.
- The legally recognised rights that give rise to carbon rights (Class 1, 2 and 3) within Tasmania, New South Wales and ACT are predominately (81%) Class 3 (Jointly Managed Parks).

- 32% of New South Wales is identified as Class 6 - Pending Native Title Claim.

The following pages provide further detailed analysis, presenting the statistics for the area of each different Class for:

- mainland Australia for each Zone (Zones as per ICIN 2022 report).
- mainland Australia for each State/Territory jurisdiction.
- the coastline by State/Territory jurisdiction (referring to land immediately adjoining the coast).
- sea country for each State/Territory jurisdiction.

Note that there is some error margin in the figures. The 2023 Map is a combination of multiple data sources, unified into one raster format (at 100m X 100m pixel size), which is then intersected with coastline (coastline vector file used was downloaded from Geoscience Australia[62]), zone, and jurisdictional boundaries. During this process some pixels are dissected and are coded incorrectly. The figures are therefore useful for generalisations, but some of the smaller values that appear in the tables possibly do not reflect reality but rather a result of unavoidable errors in the data processing process.


Cairns, Australia, stock photo

[62] https://ecat.ga.gov.au/geonetwork/srv/eng/catalog.search#/metadata/63999.

Zone	Description	Class 1 Legal Right	Class 2 EIH (Native Title)	Class 3 EIH (Agreement)	Class 5 Determined (no Native Title)	Class 6 Pending (Native Title Claim)	Class 7 Other alternatives	Zone Total
Savanna	Area (Km^2)	509,730	679,168	2,334	102,937	129,116	458,503	1,881,788
	% zone total [1]	27%	36%	0.1%	5%	7%	24%	1
	% national Class total [2]	24%	32%	3%	14%	16%	26%	
	% total national land area [3]	7%	9%	0.03%	1%	2%	6%	24% [4]
Desert	Area (Km^2)	1,545,043	1,091,769	15,199	63,139	153,269	266,472	3,134,891
	% zone total	49%	35%	0.5%	2%	5%	9%	1
	% national Class total	71%	51%	17%	9%	19%	15%	
	% total national land area	20%	14%	0.2%	1%	2%	3%	41%
Rangelands (east)	Area (Km^2)	12,074	72,935	10,748	153,360	147,185	341,599	737,901
	% zone total	2%	10%	1%	21%	20%	46%	0
	% national Class total	0.6%	3%	12%	21%	18%	20%	
	% total national land area	0.2%	1%	0.1%	2%	2%	4%	10%
Rangelands (west)	Area (Km^2)	67,934	240,693	2,160	49,912	141,742	54,460	556,900
	% zone total	12%	43%	0.4%	9%	25%	10%	1
	% national Class total	3%	11%	2%	7%	17%	3%	
	% total national land area	1%	3%	0.0%	1%	2%	1%	7%
Agricultural (east)	Area (Km^2)	16,925	55,887	51,728	111,274	231,664	610,549	1,078,027
	% zone total	2%	5%	5%	10%	21%	57%	0
	% national Class total	0.8%	3%	57%	15%	28%	35%	
	% total national land area	0.2%	1%	1%	1%	3%	8%	14%
Agricultural (west)	Area (Km^2)	11,405	14,979	8,624	241,356	17,773	4,337	298,475
	% zone total	4%	5%	3%	81%	6%	1%	1
	% national Class total	1%	1%	9%	33%	2%	0%	
	% total national land area	0.1%	0.2%	0.1%	3%	0%	0%	4%
All	Total area (Km^2)	2,163,112	2,155,430	90,793	721,979	820,748	1,735,920	7,687,981
	% of national total	28%	28%	1%	9%	11%	23%	100%

Table 3: Area of each Class for each of the Carbon Method Zones (as per ICIN 2022 report) for Australia (land areas)

To assist with interpretation of the figures:
[1] 27% of the Savanna Zone is identified as having indigenous legal right (Class 1)
[2] 24% of all lands identified as having Indigenous legal right (Class 1) across all of Australia is found within the Savanna Zone
[3] The land identified as having indigenous legal right (Class 1) in the Savanna Zone represents 7% of the entire Australian land mass.
[4] The Savanna Zone represents 24% of the Australian land mass.

State	Description	Class 1 Legal Right	Class 2 EIH (Native Title)	Class 3 EIH (Agreement)	Class 5 Determined (no Native Title)	Class 6 Pending (Native Title Claim)	Class 7 Other alternatives	State Total
Queensland	Area (Km^2)	134,475	500,061	5,409	149,415	236,068	705,694	1,731,121
	% State total	8%	29%	0.3%	8.6%	14%	40.8%	100%
	% national Class total	6%	23%	6%	21%	29%	41%	
	% total national land area	1.7%	6.5%	0.1%	1.9%	3.1%	9.2%	23%
Northern Territory	Area (Km^2)	670,857	353,868	1,553	912	52,883	268,966	1,349,040
	% State total	50%	26%	0.1%	0.1%	4%	20%	100%
	% national Class total	31%	16%	2%	0%	6%	15%	
	% total national land area	8.7%	4.6%	0.0%	0.0%	0.7%	3.5%	18%
Western Australia	Area (Km^2)	1,109,450	744,195	21,496	337,618	209,066	106,664	2,528,488
	% State total	44%	29%	1%	13%	8%	4%	100%
	% national Class total	51.3%	35%	24%	47%	25%	6%	
	% total national land area	14.4%	10%	0.3%	4.4%	3%	1.4%	33%
South Australia	Area (Km^2)	240,341	536,952	5,981	98,286	41,871	61,205	984,636
	% State total	24%	55%	0.6%	10.0%	4%	6%	100%
	% national Class total	11%	25%	7%	14%	5%	4%	
	% total national land area	3.1%	7.0%	0.1%	1.3%	0.5%	0.8%	13%
Victoria	Area (Km^2)	1,272	16,624	2,197	9,683	22,906	175,059	227,741
	% State total	1%	7%	1%	4%	10%	77%	100%
	% national Class total	0.1%	1%	2%	1%	3%	10%	
	% total national land area	0.0%	0.2%	0.0%	0.1%	0.3%	2.3%	3%
Tasmania	Area (Km^2)	738	0	15,699	0	0	52,191	68,629
	% State total	1%	0%	23%	0%	0%	76%	100%
	% national Class total	0%	0%	17%	0%	0%	3%	
	% total national land area	0.0%	0.0%	0.2%	0.0%	0.0%	0.7%	1%
New South Wales	Area (Km^2)	7,417	5,038	37,838	126,539	258,061	366,188	801,080
	% State total	1%	1%	5%	16%	32%	46%	100%
	% national Class total	0%	0%	42%	18%	31%	21%	
	% total national land area	0.1%	0.1%	0.5%	1.6%	3.4%	4.8%	10%
ACT	Area (Km2)	0	0	1,084	0	0	1,293	2,378
	% State total	0%	0%	46%	0%	0%	54%	100%
	% national Class total	0%	0%	1%	0%	0%	0%	
	% total national land area	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.03%
All	Total area (Km^2)	2,164,550	2,156,737	90,174	722,451	820,855	1,735,968	7,690,735
	% of national total	28%	28%	1%	9%	11%	23%	100%

Table 4: Area of each Class for each State/Territory jurisdiction (land areas)

Note: Class 4 has been removed as it only relates to sea country, discussed in separate table

State	Description	Class 1 Legal Right	Class 2 EIH (Native Title)	Class 3 EIH (Agreement)	Class 5 Determined (no Native Title)	Class 6 Pending (Native Title Claim)	Class 7 Other alternatives	State Total
Queensland	Length of coastline (Km)	4,861	3,410	2,209	224	1,007	1,619	13,330
	% of State coastline	36.4%	25.5%	16.5%	1.7%	7.5%	12.1%	100%
	% national Class total	21.2%	30%	47%	3%	40%	15%	22%
Northern Territory	Length of coastline (Km)	9,008	435	77	115	0	1,214	10,849
	% of State coastline	82.2%	4.0%	0.7%	1.0%	0.0%	11.1%	99%
	% national Class total	39.3%	4%	2%	2%	0%	11%	18%
Western Australia	Length of coastline (Km)	8,155	5,301	1,654	4,924	14	740	20,788
	% of State coastline	39.2%	25.5%	8.0%	23.7%	0.1%	3.6%	100%
	% national Class total	35.6%	46%	35%	72%	1%	7%	35%
South Australia	Length of coastline (Km)	358	1,584	64	1,569	569	915	5,059
	% of State coastline	7.1%	31.3%	1.3%	31.0%	11.2%	18.1%	100%
	% national Class total	1.6%	14%	1%	23%	23%	8%	9%
Victoria	Length of coastline (Km)	90	644	2	0	337	1,433	2,506
	% of State coastline	3.6%	25.6%	0.1%	0.0%	13.4%	57.0%	100%
	% national Class total	0.4%	6%	0%	0%	14%	13%	4%
Tasmania	Length of coastline (Km)	306	0	598	0	0	3,922	4,827
	% of State coastline	6.3%	0.0%	12.4%	0.0%	0.0%	81.3%	100%
	% national Class total	1.3%	0%	13%	0%	0%	36%	8%
New South Wales	Length of coastline (Km)	121	112	103	0	565	1,179	2,080
	% of State coastline	5.8%	5.3%	4.9%	0.0%	26.9%	56.1%	99%
	% national Class total	0.5%	1%	2%	0%	23%	11%	3%
All	Total length of coastline (Km)	22,899	11,486	4,708	6,832	2,493	11,023	59,440
	% of national total	39%	19%	8%	11%	4%	19%	100%

Table 5: Length of each Class for the coastline for State/Territory jurisdiction (referring to land immediately adjoining the coast)

Note, that some of the very small figures are most likely data anomalies.

State	Description	Class 2 EIH (Native Title)	Class 3 EIH (Agreement)	Class 4 Mngt Responsibility	Class 5 Determined (no Native Title)	Class 6 Pending (Native Title Claim)	State Total
Queensland	Area (Km^2)	63,265	4,565	22,944	6,100	11,950	108,825
	% national Class total	57%	66%	52%	11%	62%	
Northern Territory	Area (Km^2)	3,422	2,338	21,074	58	0	26,893
	% national Class total	3%	34%	48%	0%	0%	
Western Australia	Area (Km^2)	43,797	27	348	51,022	35	95,228
	% national Class total	39%	0%	1%	88%	0%	
South Australia	Area (Km^2)	1,005	1	0	703	3,238	4,947
	% national Class total	1%	0%	0%	1%	17%	
Victoria	Area (Km^2)	264	0	0	0	1,259	1,522
	% national Class total	0%	0%	0%	0%	7%	
Tasmania	Area (Km^2)	0	2	0	0	0	2
	% national Class total	0%	0%	0%	0%	0%	
New South Wales	Area (Km^2)	18	2	0	0	2,675	2,694
	% national Class total	0%	0%	0%	0%	14%	
All	Total area (Km^2)	111,771	6,934	44,367	57,883	19,157	240,111
	% of national total	47%	3%	18%	24%	8%	100%

Table 6: Area of each Class of sea country for each State/Territory jurisdiction

Note that the bottom row, % of national total, is % of total area of Classes 2, 3, 4, 5 and 6, not national area of sea country in total.

Recap

In this Part we have discussed the types of interests that Indigenous people may have in carbon and nature repair projects, presenting two maps which identify Indigenous rights in relation to the ACCU scheme.

- Where Indigenous people hold land rights, native title, or another form of property right, they are strongly positioned to either instigate, or have a say in the development of, a blue carbon project.
- While Indigenous people hold strong rights (Class 1, 2 or 3) along 66% of the Australian coastline, the majority of this occurs in the Northern Territory, Queensland, and Western Australia, with limited overlap between these strong rights and applicable ACCU Scheme Methods.
- Beyond what is formally recognised in the ACCU Scheme, Indigenous people are responsible for managing significant areas of Sea Country. Recognising the strong and ongoing connection that Indigenous people have to their lands and waters, State, Territory, and the Australian Government should adopt a position that:

  - projects on public conservation areas will be developed and implemented collaboratively with relevant Indigenous groups.

  - where projects cross into State, Territory or Australian Government waters, relevant Indigenous groups must be involved in the development of the project, including the default position that ownership of carbon within government waters will lie with Indigenous people.
- The Australian Government should examine the operation of non-ACCU Scheme carbon projects in Australia and ensure that adequate protections are in place for Indigenous rights.
- Significant areas of Sea Country native title claims remain outstanding. The ACCU Scheme needs to prioritise addressing the rights of native title claimants, so as to avoid future issues brought about by the recognition of these rights.

5. Blue carbon resource information and project examples

In addition to understanding where Indigenous rights and interests in carbon are, another important piece of information is knowing where blue carbon resources are and where there are opportunities to implement a blue carbon project.

It is beyond the scope of this project to develop new blue carbon datasets (i.e., geospatial information that may inform where a blue carbon project could take place). The focus of this project has been on providing a user-friendly tool that can be used to display existing 3rd party developed carbon/resource datasets. The approach undertaken for this aspect of the Project has been to upload the ICIN (2023) dataset to the Seamap Australia web platform (seamapaustralia.org). Seamap Australia is a national repository for the collection of marine habitat and other related datasets. This approach allows for an interactive experience where a user can display the ICIN (2023) Indigenous rights and interests dataset at the same time as the one nationally aggregated product or any of the 680+ datasets already available on the Seamap Australia website. An advantage of using the Seamap Australia interface is that the mapping can be continuously updated as new data layers become available.

It is important to note that the majority of datasets currently in existence (either available to view on the Seamap Australia site or not) do not identify potential project areas under existing ACCU Scheme Blue Carbon methods or carbon abatement potential. It is acknowledged that the lack of this type of data remains a major information gap and addressing this should be prioritised. Rather, many existing datasets identify things such as habitat type (i.e., mangrove, seagrass), carbon stock (how many tonnes of biomass present – which does not necessarily mean that abatement can be achieved), or other things of interest in the marine/coastal environment (e.g., sediment type on the seafloor). This existing data may be interesting and of some use, but the data that can identify where a blue carbon project could be registered under a Method and the abatement potential is mostly non-existent (although CSIRO are currently developing a map of potential sites eligible under the ACCU Scheme Blue Carbon tidal restoration Method).

Hypothetical case studies

Following on from reviewing carbon rights and available blue carbon related data, it may be worth starting to think about what a potential blue carbon project may look like. The following section provides some hypothetical case studies as examples of what projects might look like under different tenure and project-type scenarios. As demonstrated earlier in Table 2 and Figure 2, there are many different variables when it comes to land ownership and interests, and considering different project types as well adds another layer of complexity. The following examples are general only, and do not attempt to cover all possible variables, and should not be relied upon as guidance for any individual project.

What these examples do demonstrate is the complex layers of rights that can be involved in a project, and the need for early and collaborative planning.

Example 1: Tidal Restoration Method on a Pastoral lease

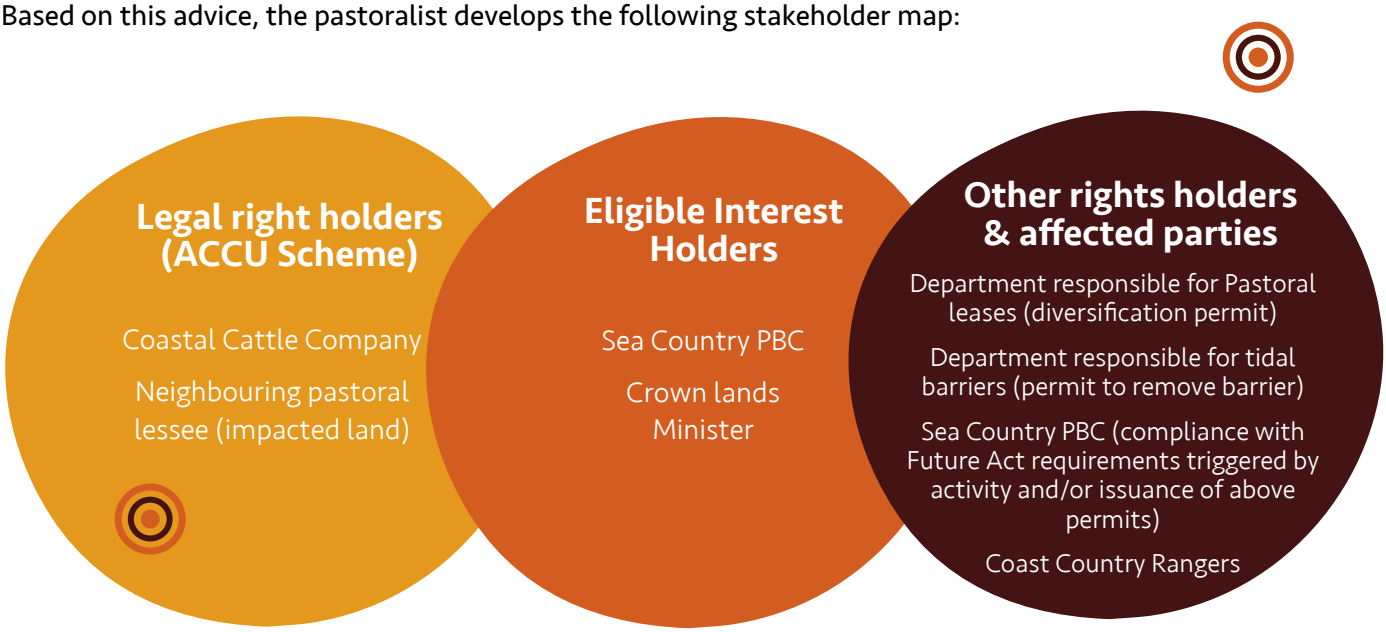
A pastoral lessee, Coastal Cattle Company, holds a pastoral lease. The area within the lease has been historically modified to exclude tidal flows, and the lessee wish to undertake a Tidal Restoration of Blue Carbon Ecosystems project under the ACCU Scheme.

The lessee engages experts to undertake hydrological assessment and project extent mapping. This identifies that the project may impact a neighbouring pastoral lease.

The lessee engages legal experts to provide advice on tenure and legal right to undertake the project. They identify that the pastoral lease extends to the high tide mark, and the project boundaries fall within the pastoral lease. They identify a PBC, Sea Country PBC, who holds non-exclusive possession native title over the project area. Advice is provided that under the ACCU Scheme, the relevant Crowns land minister holds an eligible interest. The advice also indicates that the activity may fall outside the scope/purpose of the pastoral lease and a diversification permit is required from the relevant Department in charge of pastoral leases. In addition, modification of the tidal barriers also require permission from a different government Department.

The Coast Country Rangers are actively engaged in healthy country management activities in the area and have collaborated with the pastoralist on a number of conservation projects in the past.

Based on this advice, the pastoralist develops the following stakeholder map:



The lessee organises a meeting with all identified stakeholders. Jointly they agree on each of their roles and responsibilities, a communication protocol, and a negotiation protocol and process by which the project will be progressed and registered.



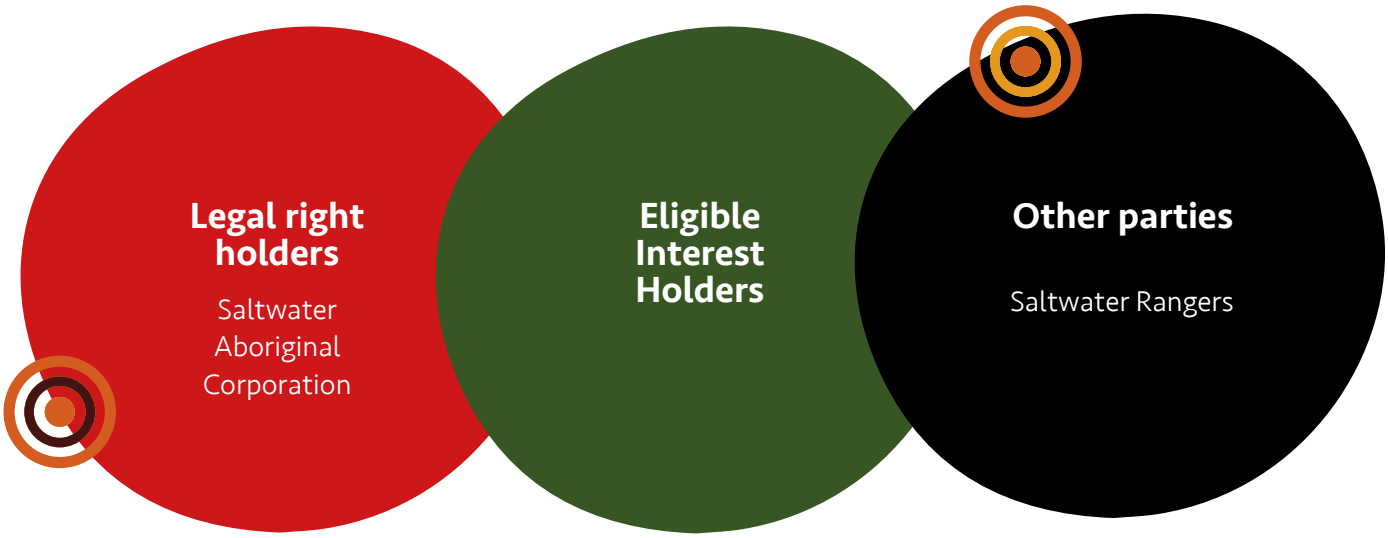
Queensland, Australia, stock photo

Example 2: Ungulate Management Method on Land Rights Land

An Aboriginal Corporation, Saltwater Corporation, wishes to undertake a project to manage the impact of buffalo and pigs on salt marshes on Indigenous land.

They work with their ranger group, Saltwater Rangers, to develop a management plan and identify the cost and requirements to exclude animals from the salt marsh. They engage an expert advisor to identify the feasibility and ongoing requirements of a carbon project under the Ungulate Method. The advisor informs them that the Method is still under development. The Salt Marsh extends into the inter-tidal zone to the low water mark.

They engage legal expertise to provide advice on legal right and land tenure. The advice identifies that the Aboriginal Corporation is the legal right holder. No other legal right or eligible interest holders are identified.



Given the Method is still under development, they decide to begin work to prepare historical information and data and build internal understanding of the opportunity, so they are ready to hit the ground running when the method is released. They work closely with researchers and DCCEEW so that they understand the requirements of the emerging method, they hold consultations and information sessions with their members, directors, and rangers, and develop and agree the timeframe and governance structure for establishing a project.

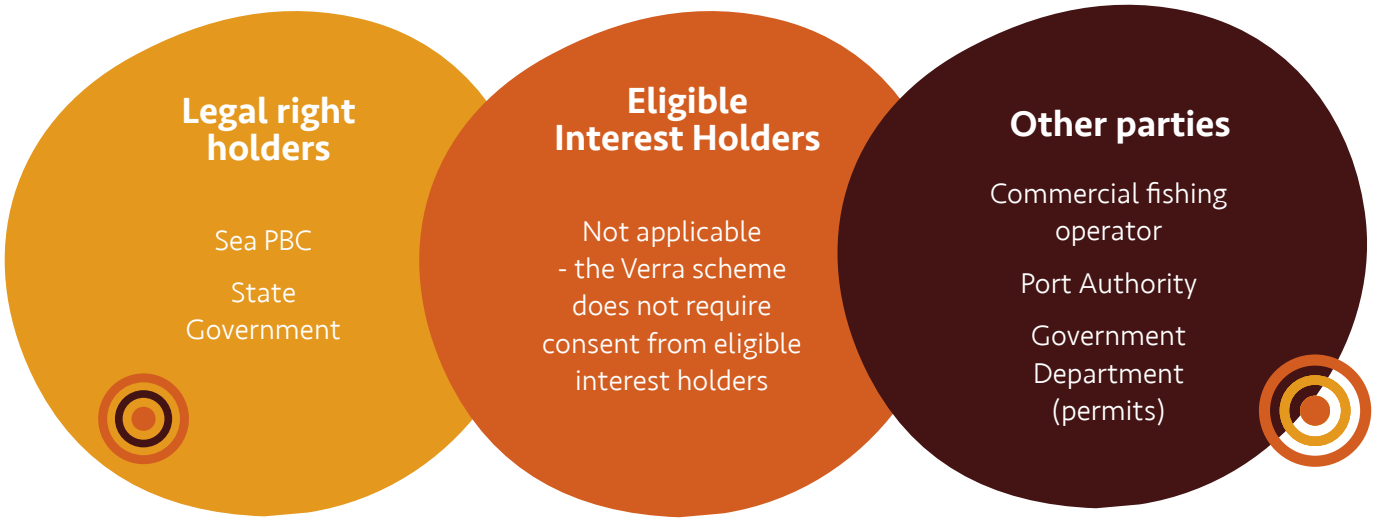
Example 3: Verra Sea Grass Method on non-exclusive possession native title land

An Aboriginal Corporation (Sea PBC) wishes to undertake a project to improve sea grass meadows under the Verra scheme.

They engage an expert to help map out the boundaries and requirements of the project, including a feasibility study. They identify that building 'oyster reefs' and distributing hessian bags with sea grass are the best way to encourage sea grass growth. The feasibility study identifies that the financial benefit from the carbon credits is unlikely, on its own, to balance the cost of the project. However, the project will have significant biodiversity benefits, and may be able to apply a method from the emerging Nature Repair Market, or Verra's Nature Method.

They engage a legal advisor to provide advice on legal rights and tenure. The lawyer identifies that the Sea PBC holds exclusive possession native title rights to the high tide mark, and non-exclusive possession native title rights over the intertidal zone and an adjoining area of coastal waters, though native title has been extinguished in large parts of the identified project area.

The relevant State government holds legal rights over the intertidal zone and adjoining coastal waters. There is a Port Authority who operates in the area and has a lease over some of the affected area, as well as a commercial fishing operator. The lawyer also identifies that permits will be required from the relevant State government department to implement the identified activities.



The Sea PBC organises a meeting with all relevant stakeholders. The project aligns with relevant management plans and will have significant environmental and social benefits, including increased employment, creation of fish habitat, and tourism appeal. The Port Authority expresses an interest in purchasing future credits to help meet its carbon neutrality goals under Climate Active. Recognising the ongoing connection and stewardship of Traditional Owners over the area, and for the avoidance of doubt, the State government grants all carbon abatement interests in the project area to Sea PBC. Working with these and other philanthropic partners, Sea PBC is able to raise sufficient funds to initiate the project, with ongoing investigation into the opportunity for biodiversity offsets under either Verra or the Australian Nature Repair Market to make the opportunity financially sustainable in the long-term.

Example 4: Coastal stewardship project

A Indigenous landowner has heard lots of people talking about blue carbon projects and is interested in undertaking a project. There is an area of intact mangroves and seagrass that the local rangers have been interested in managing, they have non-exclusive native title rights over the area, which is not currently being actively managed.

They engage an expert to provide a feasibility study and advice on their rights. The advice identifies that the area would not be eligible under any existing or emerging blue carbon method, and that they have limited non-exclusive rights. However, the advice identifies the opportunity to engage with the local government authority, along with the relevant state/territory government to discuss a Indigenous led stewardship project over the area.

While a blue carbon project is not possible, the Indigenous landowner and rangers are able to use 'hype' around blue carbon to initiate important conversation and negotiations around increasing their management and stewardship of this important resource.

Recap

In this Part we have:

- Discussed how the ICIN (2023) dataset has been uploaded to the Seamap Australia website. The Seamap Australia website is a national depository for blue carbon and marine habitat related datasets. Seamap Australia have also developed a national synthesised habitat product, which this and the other 680+ datasets can easily be displayed concurrently with the ICIN dataset.
- Provided four hypothetical case studies as examples of what blue carbon projects might look like under different tenure and project-type scenarios.



International experience in Indigenous rights and blue carbon provide an important opportunity for learning, ensuring that Australia is in line with, or exceeding, international best practice.

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Larrakia Country (Darwin), stock photo

6. International context

This section provides a summary of international developments in relation to blue carbon and Indigenous rights.

Why the sudden interest in blue carbon?

The growth in interest in blue carbon that we are witnessing in Australia is mirrored in the international context. One of the major motivators for this interest has been the realisation of the role that coastal ecosystems play in mitigating climate change. Coastal ecosystems store vast amounts of carbon which, when they are damaged or destroyed, is released into the atmosphere. Protecting and/or restoring coastal ecosystems is therefore crucial in helping to mitigate climate change.

In addition to mitigating climate change, these ecosystems also play a crucial role in adaptation and climate change resilience. Healthy coastal ecosystems help to protect communities and the environment from climate change impacts such as storm surge or sea level rise.

The recognition of the importance of coastal ecosystems to climate change mitigation and adaptation coincided with (or can be partly attributed to) improved scientific understanding of the interaction of greenhouse gases in coastal ecosystems, and the development of new technologies that make it easier to measure and monitor carbon in coastal ecosystems. These developments have in-turn made it possible to include these ecosystems in National Greenhouse Gas Inventories, and therefore NDCs, as well as develop methods for blue carbon offsets.

Simultaneously, as countries look to how they will meet their Paris targets and the private sector also seek to meet their own voluntary commitments, there is a growing demand for carbon offsets, that is unlikely to be met from the land sector. The voluntary carbon market alone is expected to soar from a $2 billion valuation in 2021 to as much as $50 billion by 2030[63]. This demand is driving the investment in blue carbon offset methods. These factors combined have resulted in significant momentum in relation to protecting and restoring blue carbon ecosystems.

International initiatives and resources related to blue carbon

Internationally, there is no single international policy or law specific to blue carbon. Rather, it is governed by a multitude of different frameworks, agreements, and initiatives[64]. Once again, separating 'interest' or 'potential' from tangible opportunities is made difficult in this crowded international space.

Under the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement (2015), blue carbon can be included in countries National Greenhouse Gas Inventories, and actions to conserve/restore these ecosystems can also be included in NDCs. As discussed above, this means that carbon credits from blue carbon projects can potentially be bought and sold into the Paris Article 6 carbon market.

In addition, the Convention on Biological Diversity (1992), together with the Kunming-Montreal Global Biodiversity Framework (2022) recognise the integral role of coastal ecosystems in biodiversity conservation, furthering interest and demand for nature based projects in coastal ecosystems. To respond to this interest and demand, a number of international initiatives related to blue carbon have been established.
Some of these major initiatives and key resources are outlined below.

[63] Blaufelder et al., A blueprint for scaling voluntary carbon markets to meet the climate challenge (2020).
[64] For a comprehensive summary of the international blue carbon architecture see High Level Panel for a Sustainable Ocean Economy, *The blue carbon handbook: Blue carbon as a nature-based solution for climate action and sustainable development.*

Blue carbon Methods in the Voluntary Carbon Market

Part 2, above, provides an overview of the main voluntary carbon market programs, including Verra, Gold Standard and Plan Vivo, and identifies the existing blue carbon methods under these schemes. Recognising the growing interest and potential of the blue carbon market, these programs are investing significant resources and research and piloting projects to develop new methods in this space. More information is available on each of the individual websites.

The Blue Carbon Initiative

The Blue Carbon Initiative[65] is a program co-organised by Conservation International, the IUCN and UNESCO. Its key activities include building scientific knowledge about blue carbon ecosystems through the International Blue Carbon Scientific Working Group, providing global and national policy expertise on blue carbon projects through the Blue Carbon Policy Working Group, and delivering financial and technical assistance to pilot blue carbon projects. The Blue Carbon Initiative has produced a number of useful documents, including:

- The Blue Carbon Manual: this is a comprehensive guide to measuring, monitoring, and reporting on blue carbon stocks and fluxes. It is targeted at scientists, coastal managers, and other practitioners who are working to conserve and restore blue carbon ecosystems.
- Guidelines for Blue Carbon and Nationally Determined Contributions: this document provides a guide on how countries may include blue carbon in their NDCs.
- National Blue Carbon Policy Assessment Framework: this document aims to provide a toolkit that countries can use to identify, assess, and implement robust policies for the protection of coastal carbon ecosystems.
- The Initiative also provides an online library of further useful materials.

International Partnership for Blue Carbon

The International Partnership for Blue Carbon[66], an Australian Government initiative, is a partnership of over 55 government and non-government organisations which aims to increase international action in coastal ecosystems through connecting relevant Parties. The Partnership provides a number of useful resources including:

- Coastal Blue Carbon Ecosystems in International Frameworks and Conventions: This document provides an overview of the main international frameworks and conventions that address the conservation, restoration, and sustainable use of coastal ecosystems.
- Inventory of Global Blue Carbon Key Actors: This document provides a list of the main actors in the blue carbon field working at the regional and international level. It categorises them by type of organization and provides a brief description of relevant blue carbon activities.
- The International Partnership for Blue Carbon online resource library provides links to a range of materials developed by the partnership and externally.

[65] For further information see: https://www.thebluecarboninitiative.org/ [accessed 13 September 2023].
[66] For further information see: https://bluecarbonpartnership.org/ [accessed 13 September 2023].

International Blue Carbon Institute

The International Blue Carbon Institute[67] is an initiative of Conservation International. Its aim is to operate as a global hub for exchanging expertise, knowledge and learning in blue carbon research and implementation, translating science into practical tools and methodologies that support blue carbon projects. It is closely aligned with the Blue Carbon Initiative (above) which is also co-coordinated with Conservation International.

High Level Panel for Sustainable Ocean Economy

The Ocean Panel[68] is an initiative made up of 18 countries, including Australia, that is working towards the goal of sustainable management of oceans. The initiative has produced a number of useful resources including:

- The Blue Carbon Handbook: developed in partnership with the International Partnership for Blue Carbon and the Blue Carbon Initiative, this report is intended for non-specialists as a guide to gain a broad understanding of the subject. The report covers topics including sequestration potential of blue carbon ecosystems, adaptation and resilience benefits, policy landscapes, biodiversity and sustainable development, and the carbon market and other financing options for blue carbon projects.
- The Ocean as a Solution to Climate Change: this report looks at the role of ocean ecosystems in relation to climate change, identifying a series of 'feasible, ready-to-implement, scalable ocean-based solutions' to climate change that can help mitigate climate change globally.

Blue Carbon Accelerator Fund

Funded by the Australia government and delivered in partnership with IUCN, the Blue Carbon Accelerator Fund[69] supports blue carbon restoration and conservation projects in developing countries and helps pave the way for private sector finance.

IORA Blue Carbon Hub

Funded by the Australian Government, the IORA Blue Carbon Hub[70] provides knowledge transfer and capacity building to seven countries in the Indo-Pacific aiming to build knowledge and capacity in protecting and restoring blue carbon ecosystems in a way that enhances livelihoods, reduces risks from natural disasters, and helps mitigate climate change.

Blue Carbon in the Asia Pacific Region

At a national level, countries are taking different levels of action in relation to blue carbon. Some countries are including blue carbon in their NDCs, while others are investing in pilot projects, in their own countries, or in partnership with others. The Australian Government is particularly active in investing in blue carbon capacity building in the Asia Pacific region through a number of initiatives identified above. Within the region there are a number of pilot projects, funded by investors and donor governments, underway including the innovative Hinemoanda Halo Ocean Initiative[71], however it remains early-days, with National level governments still in the process of developing domestic policy to address the opportunity and issues[72].

[67] For further information see: https://www.conservation.org/about/international-blue-carbon-institute [accessed 13 September 2023].
[68] For further information see: https://oceanpanel.org/ [accessed 13 September 2023].
[69] For further information see: https://bluecarbonpartnership.org/ [accessed 13 September 2023].
[70] For further information see: https://research.csiro.au/iora-blue-carbon-hub/ [accessed 13 September 2023].
[71] Discussed in more detail below.
[72] The Nature Conservancy, Asia Pacific Blue Carbon Workshop, August 2023.

Blue carbon and Indigenous Rights in the Global Setting

There are no international, regional, or national level treaties or laws dealing specifically with Indigenous rights and blue carbon. However, there is strong recognition at the international level, drawing on experience from the voluntary carbon market, that Indigenous people must be at the forefront of the development of blue carbon projects, and that Indigenous rights need to be safeguarded in emerging blue carbon markets.

International experience in Indigenous rights and blue carbon provide an important opportunity for learning, ensuring that Australia is in line with, or exceeding, international best practice. Included below are some examples of key instruments, documents and regional or national initiatives relevant to Indigenous rights and blue carbon. Once again, this is not an exhaustive list, but provides useful examples that could be drawn upon in Australia.

United Nations Declaration on the Rights of Indigenous People (UNDRIP)

The UNDRIP is a comprehensive international agreement that sets out the standards for how governments around the world should interact with and support Indigenous people.

Of relevance to coastal ecosystems and blue carbon, the UNDRIP recognises the rights of Indigenous peoples to their traditional lands and resources, including coastal and marine resources, and to the protection of the environment and the productive capacity of these lands and resources[73], the right to self-determination, including economic development[74], and the right to participate in decision-making matters affecting their rights[75]. The UNDRIP also enshrines the principles of Free, Prior and Informed Consent, which must underpin any blue carbon project.

It is important to note the UNDRIP is not a legally binding document. However, it nonetheless provides a useful touchstone for identifying the minimum standard of recognition of Indigenous rights.

High Quality Blue Carbon Principles and Guidance

This document is a comprehensive joint report by Salesforce, Friends of Ocean Action, Conservation International, The Nature Conservancy and Meridian Institute. It sets out best-practice principles and guidance that outline what high-quality blue carbon projects and credit development mean within a global context. In particular, it identifies five principles (and provides associated guidance) which should underpin equitable blue carbon projects, including (our emphasis):

1. Safeguard nature: blue carbon projects provide unique opportunities to preserve and enhance ecosystem resilience.
2. **Empower people: blue carbon practitioners must implement social safeguards to protect and enhance community member rights, knowledge, and leadership and foster equitable access to the global carbon market.**
3. Employ the best information, interventions, and carbon accounting practices: the integrity of the voluntary carbon market hinges, in part, on the quality of information used to design projects and communicate the resulting carbon value of the credits generated.

[73] Articles 25-29, UN General Assembly, United Nations Declaration on the Rights of Indigenous Peoples: resolution / adopted by the General Assembly, 2 October 2007, A/RES/61/295, available at: https://www.refworld.org/docid/471355a82.html [accessed 6 November 2023].
[74] Articles 3-5, Ibid.
[75] Articles 18-19, Ibid.

4. **Operate locally and contextually: blue carbon ecosystems are incredibly heterogeneous with respect to their role in local customs; gender and power dynamics; resource use, management, and ownership regimes; and social, policy, and governance structures.**
5. Mobilise high integrity capital: We cannot achieve the best outcomes for people, nature, and climate without high-integrity financial flows[76].



There is strong recognition at the international level, drawing on experience from the voluntary carbon market, that Indigenous people must be at the forefront of the development of blue carbon projects, and that Indigenous rights need to be safeguarded in emerging blue carbon markets.

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Larrakia Country (Darwin), ICIN image

[76] Available here: https://merid.org/wp-content/uploads/2022/11/HQBC-PG_FINAL_11.8.2022.pdf [accessed 06 November 2023].

Beyond beneficiaries: fairer carbon market frameworks

This Report, authored by The Nature Conservancy, identifies the need for improved safeguards of Indigenous Peoples and Local Communities in voluntary carbon markets. The report steps through current benefit-sharing approaches; short-comings in these approaches; existing guidance on protecting Indigenous and Local Peoples rights and sets out proposed solutions[77].

The report identifies the following seven issues or 'gaps' in existing benefit sharing agreements, which resonate strongly with the Australian experience:

1. Rent seeking behaviour: Existing power imbalances (such as in land ownership, rights, or investment ability) can lead to "rent seeking", or the profiteering by third parties off carbon credits without adding value to the local economy.
2. Market volatility: Projects typically negotiate a revenue split, or, less commonly, provide a lump-sum benefit in lieu of a percentage. In addition to negotiation disadvantages, market volatility and unpredictability can result in inequitable conditions.
3. Unclear rights: Many countries have not clarified how land tenure intersects with carbon rights. Financial opportunities created by carbon credits can, if improperly designed or executed, exacerbate rights violations and inequities.
4. Unclear contract understanding: If communities cannot access or understand the details of the project's agreements, they are susceptible to missing out on the carbon benefits owed to them. Because many carbon projects include confidential information (such as revenue and profit margins), information that may be key for understanding may be underreported and opaque.
5. Subsidised costs: Costs incurred by Indigenous people and communities are often not fully included in the project's balance sheet. These include opportunity costs; days of lost work from individuals' regular jobs; and implementation costs including on-going ecosystem stewardship and management, among other things.
6. Beneficiaries not partners: Frequently, Indigenous people are not engaged until after many details of the project have been determined. They are approached as passive beneficiaries, as opposed to equal partners.
7. Rushed benefit design: Benefits may not adequately incentivise behaviour changes amongst communities if they are not properly designed.

The Report identifies that the first step to improve this situation is to promote Indigenous People and Local Community groups to the role of project owners or project partners, rather than beneficiaries. In areas where this is not possible, projects should showcase best practice, including rights to an equitable share of revenue; treating Indigenous people as equal partners; participatory design of benefits; ongoing monitoring and adaptation including allowing renegotiation of agreements; splitting out costs (including Indigenous peoples' costs) from revenue; and including price floors, dynamic revenue-sharing and enhanced transparency.

Hinemoanda Halo Ocean Initiative

The Hinemoanda Halo Ocean Initiative is an example of an innovative initiative seeking to put Indigenous

[77] Available here: https://nature4climate.wpenginepowered.com/wp-content/uploads/2023/08/TNC_Beyond-Beneficiaries-220823.pdf [accessed 06 November 2023].

people and Indigenous knowledge at the forefront of blue carbon projects. The Initiative is a partnership between Conservation International Aotearoa and Maori to establish a sustainable financing mechanism to fund Indigenous-led blue carbon projects across the region. The Initiative proposes to work with scientific, economic, and financial institutions in partnership with Indigenous communities with the aim of establishing a new class of natural assets for blue carbon and biodiversity credits, aligned with Indigenous values. A key focus for the Initiative will be to invest in feasibility research to test and confirm existing and new scientific, cultural, and economic evidence for the value of ecosystem services, including carbon capture and storage, performed by great whales in the Pacific.

As a medium to long-term goal, the Initiative seeks to develop a bespoke blue carbon economy for the Pacific that is aligned to traditional Indigenous values and community aspirations[78].

Indigenous carbon projects in Canada

In British Columbia, Canada, agreements between First Nation tribes and the government, called *Indigenous Atmospheric Benefit Agreements*, are used to recognise Indigenous ownership and right to sell carbon credits generated from improved forest management projects.

The Great Bear Forest Carbon Project[79] is one example of this, with the government of British Columbia granting Indigenous people the right to own and sell carbon offsets, enabling the development of a successful Indigenous carbon project that reinvests profits in stewardship of land and resources.

Promoting Indigenous led conservation

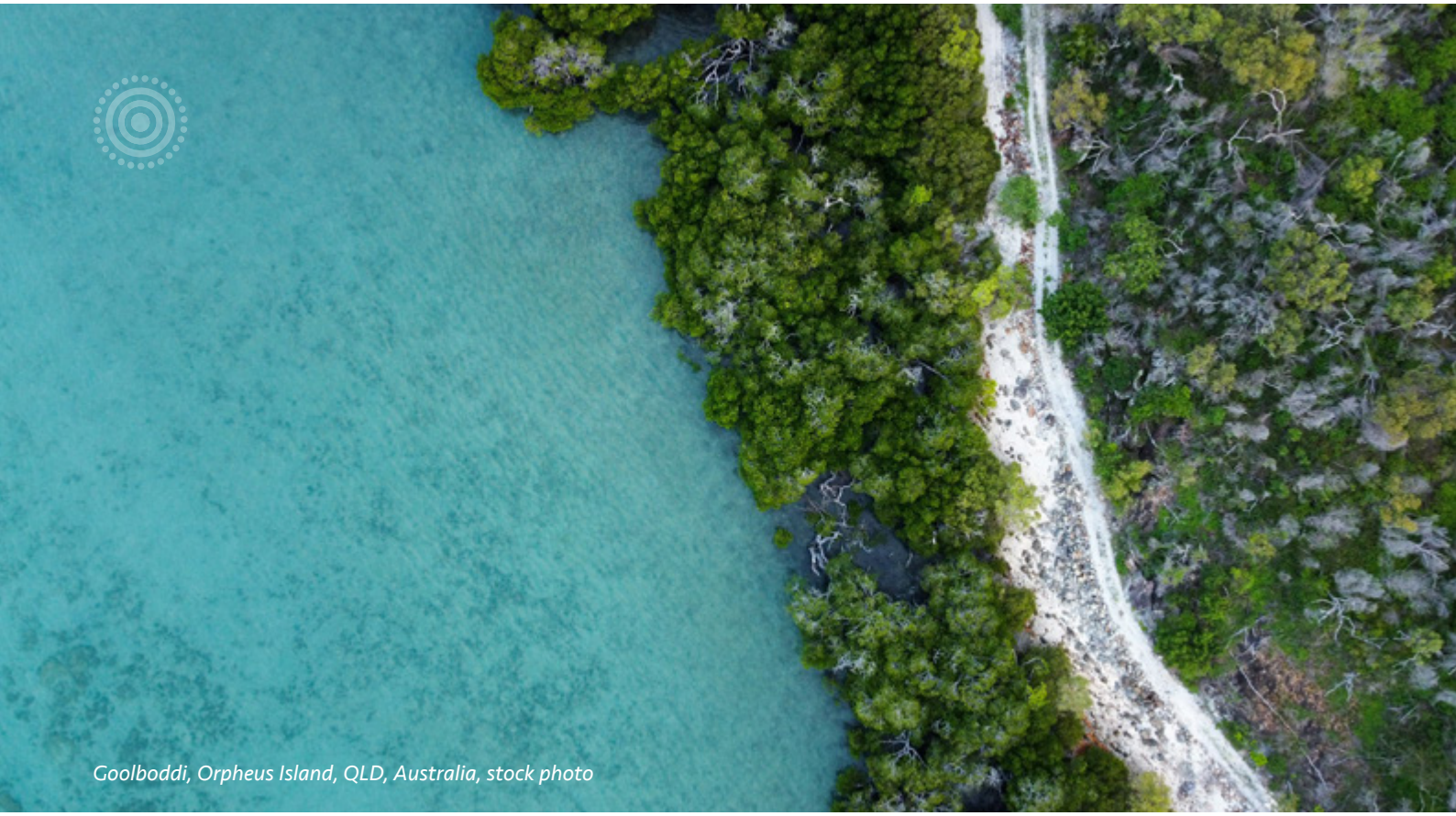
There are a number of regional and national strategies and frameworks for enhancing Indigenous peoples' role in conservation which may be of relevance to enhancing the role of Indigenous people in the management of coastal ecosystem. For example, the Canadian Indigenous Leadership Initiative have produced a guide entitled How to be an Ally of Indigenous Conservation[80] identifying the following nine principles which should underpin collaborative engagement with Indigenous people on conservation management:

1. Trust Indigenous leadership.
2. Create space for Indigenous voices.
3. Understand the connection between land and Nationhood.
4. Recognize Indigenous science.
5. Participate with interest.
6. Focus on solutions.
7. Share stories with respect.
8. Continue to learn.
9. Influence your peers.

[78] More information available here: https://www.conservation.org/aotearoa/hinemoana-halo [accessed 06 November 2023].
[79] For more information see: https://ostromclimate.com/portfolio/great-bear-forest-carbon-project/ and https://coastalfirstnations.ca/our-land/carbon-credits/ [accessed 06 November 2023].
[80] See https://www.ilinationhood.ca/publications/how-to-be-an-ally-of-indigenous-led-conservation [accessed 06 November 2023].

The World Economic Forum, in collaboration with Deloitte have produced a report for investors, Embedding Indigenous Knowledge in the Conservation and Restoration of Landscapes[81], that highlights the pivotal role that Indigenous people have to play in successful landscape restoration projects, as well as the significant risk that investment interest and emphasis on nature based solutions could result in "the biggest land grab in history"[82]. The report identifies a 'spectrum' for involvement of Indigenous People, with Indigenous led and determined projects representing the best-practice goal.

In Australia, the critical role of Indigenous people in achieving conservation and stewardship is demonstrated in the fact that approximately 50% of Australia's National Reserve System is managed by Indigenous people as Indigenous Protected Areas, helping Australia meet its international commitment to biodiversity conservation. The essential role of Indigenous people in responding to Australia's environmental challenges is explicitly recognised in the most recent State of the Environment report, including a recommendation in relation to coastal governance and policy that "[a]ll major policy and delivery agenda in sea Country and catchments must embrace Traditional Owners as rights holders, requiring action to be framed on a negotiated basis with key decision-makers[83].



Goolboddi, Orpheus Island, QLD, Australia, stock photo

[81] See https://www.weforum.org/reports/embedding-indigenous-knowledge-in-the-conservation-and-restoration-of-landscapes/ [accessed 06 November 2023].
[82] See page 32, World Economic Forum, Deloite, *Embedding Indigenous Knowledge in the Conservation and Restoration of Landscapes*, discussing communications surrounding the Convention on Biodiversity 2030 action targets.
[83] Clark GF, Fischer M, Hunter C (2021). Coasts: Coastal governance and policy. In: Australia State of the environment 2021, Australian Government Department of Agriculture, Water and the Environment, Canberra, https://soe.dcceew.gov.au/coasts/management/coastal-governance-and-policy, DOI: 10.26194/AANZ-RF46.

Recap

Blue carbon is gaining significant traction globally, with governments and non-governmental organizations investing in research and initiatives. A wealth of information and resources are available to support understanding of blue carbon projects and a number of pilot and emerging voluntary market projects are underway.

While there are no agreements or guidance on Indigenous rights and blue carbon specifically, there are a number of instruments, documents, and initiatives on Indigenous rights and on the interaction of Indigenous and Local Peoples rights with carbon or conservation projects, that are of relevance.

These resources recognize the pivotal role of Indigenous people in conservation and carbon projects and support positioning of Indigenous people as decision makers and rights holders in relation to blue carbon projects.

Global examples, such as the Great Bear Rainforest Carbon Project and the Hinemoanda Halo Ocean Initiative, demonstrate how Indigenous people and knowledge can be placed at the forefront of blue carbon projects.

Australia could learn from these examples and adopt a national policy position granting Indigenous people the rights to own and sell carbon in coastal ecosystems where the Crown (either Commonwealth, State or Territory) would otherwise have the carbon right (i.e., outside of privately or Indigenous owned lands). Further, in projects where Indigenous people would otherwise be excluded from all aspects of a blue carbon project, the Crown (again, whether Commonwealth, State or Territory) could use its eligible interests to ensure Indigenous people are involved in project design and development. This would be a significant step towards ensuring that Indigenous people benefit from the development of blue carbon projects and that their rights are respected.

In Australia, of the 39 Indigenous carbon projects, almost all are 100% owned and operated solely by Indigenous people, without third-party involvement.
This provides both a template and strong precedent for Indigenous people to be advocating for sole or equal-joint project ownership.
It also demonstrates the capability of Indigenous people and challenges the assumption that projects require a third-party carbon provider to be successful.

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7. Getting a good deal

There is a lot involved in undertaking a successful carbon project, and as we've highlighted throughout this report, ensuring that Indigenous people have an equal stake in projects from the outset can be a key determinate of project success. In this part of the report, we briefly touch on some of the key elements for ensuring that Indigenous rights are upheld in blue carbon projects.

Recognising the strength of Indigenous Rights

As set out in this report, Indigenous people hold legally recognised rights and interests (Class1, 2 or3) along 66% of the Australian coastline

Where Indigenous people do have recognised land interests, they will generally be positioned as either a legal right holder or an eligible interest holder in relation to a carbon project, which means they can determine if a project can proceed or not, and therefore are strongly positioned to negotiate how that project is set-up and operates.

International guidance on both blue carbon projects and Indigenous rights strongly supports the position that, regardless of underlying tenure, and where it aligns with Indigenous aspirations to do so, Indigenous people should be placed in a leadership role in relation to blue carbon projects.

In its report Beyond Beneficiaries, The Nature Conservancy identified a spectrum for Indigenous involvement in carbon projects, ranging from Becoming the Project Proponent through to choosing not to participate in the carbon market[84].

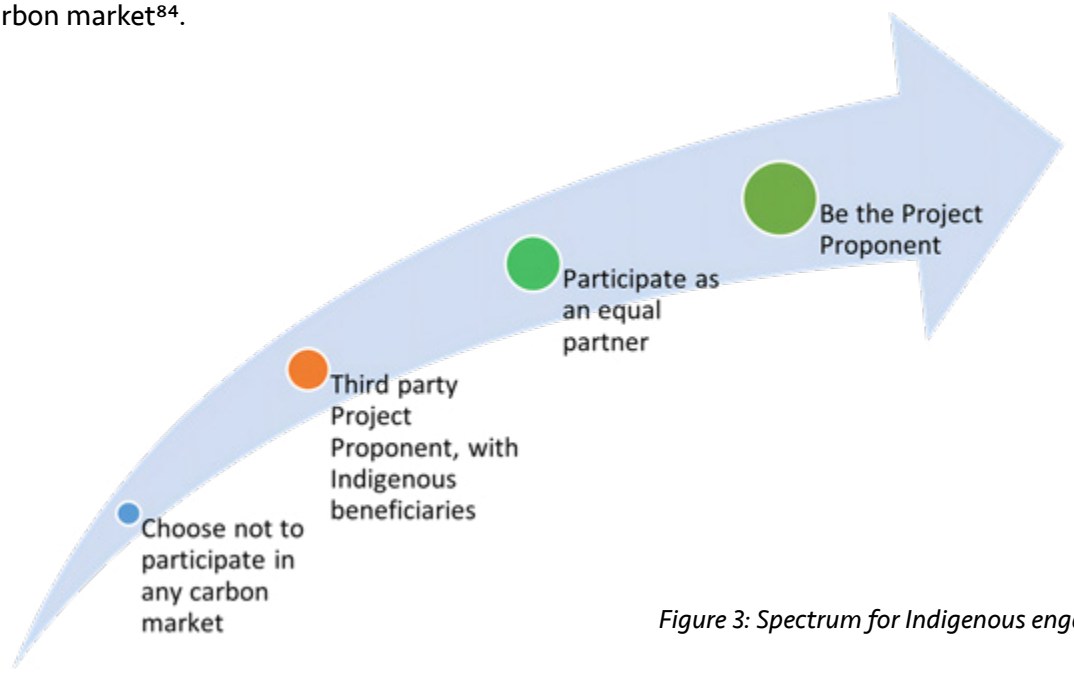


Figure 3: Spectrum for Indigenous engagement in carbon project

In Australia, of the 39 Indigenous carbon projects, almost all are 100% owned and operated solely by Indigenous people, without third-party involvement. This provides both a template and strong precedent for Indigenous people to be advocating for sole or equal-joint project ownership. It also demonstrates the capability of Indigenous people and challenges the assumption that projects require a third-party carbon provider to be successful.

[84] Report described above and available here: https://nature4climate.wpenginepowered.com/wp-content/uploads/2023/08/TNC_Beyond-Beneficiaries-220823.pdf [accessed 06 November 2023].

This is not to say that receiving independent advice is not important or required, but much as you might engage an accountant to do your tax without handing over ownership of your business, so too is it possible to retain control of a carbon project while engaging independent experts as required to support your establishment and operation of the project.

One of the first steps in getting a good deal in relation to Indigenous carbon projects is knowing your rights, knowing what involvement you want in a project, and feeling empowered to advocate for these.

Free, Prior and Informed Consent – getting the process right

Free, Prior and Informed Consent (or FPIC) is both an outcome and a process that is recognised as the minimum standard of engagement with Indigenous people in carbon projects[85].

Where Indigenous people choose to engage with other parties in relation to proposed carbon projects, agreeing a process for that engagement, and ensuring that Indigenous people have access to the right information and advice over the right timeframes can be crucial to the success of any discussions[86].

In particular, it should be agreed:

- What is being decided – what is within and outside the scope of negotiations, what is the final decision or outcome being worked towards.
- With who – who needs to be consulted, who are the appropriate contact people and decision-makers, when and how will meetings occur.
- Over what timeframe – what are key decision points, when do these occur, and what happens if these timeframes are not met.
- What information is required – what advice will be needed to inform decisions; how will this be independently sourced.
- Who will pay – how will costs of expert advice, holding meetings, and people's time be met.

The ICIN have produced guidance on seeking free, prior and informed consent from Indigenous communities for carbon projects[87].

Within the carbon industry, and outside Indigenous owned carbon projects, Indigenous engagement generally has been grossly inadequate. The position, taken by some commercial carbon operators, that proper Indigenous engagement is too expensive or time consuming must be both challenged and overcome. Far more costly than meaningful engagement are carbon projects being deregistered or sitting inactive with no-ACCUs issued because projects have failed to adequately engage.

As previously stated, and supported by both domestic and international experience, carbon projects are most successful when Indigenous people are engaged as project owners or equal partners from the outset.

[85] This principle is enshrined both in the UNDRIP and in the Australian Carbon Industry 'Code of Conduct' available here: https://carbonmarketinstitute.org/code/the-code/ [accessed 06 November 2023].
[86] Some of the resources outlined in Part 4, above, including The Nature Conservancy's report *Beyond Beneficiaries: fairer carbon market frameworks*, may be of use in guiding these discussions.
[87] Available here: https://assets.nationbuilder.com/icin/pages/34/attachments/original/1595809263/ICIN_Seeking_FPIC_from_Indigenous_communities_for_Carbon_Projects_Guide_FINAL_Feb_2020.pdf?1595809263 [accessed 06 November 2023].

Understanding what is being proposed and getting good advice

Part 2 of this report explored the complexities in understanding what is being proposed by a blue carbon project. Ensuring that Indigenous people adequately understand what the opportunity is, or what is being asked of them, supported by independent and informed legal, business, and financial advice, is key to supporting positive outcomes for Indigenous people in carbon projects.

In particular, because of the prospective nature of blue carbon – i.e., a lot of initiatives involve research or scoping potential options or preparing for a future opportunity rather than establishing immediate projects – it is important that Indigenous people understand what they are being asked to be involved in, and what this may mean for any future carbon opportunities. In particular, Indigenous people should be cautious against any agreements that seek to assign future carbon rights away from them. Given the potential for exploitation and undermining of rights, the practice of asking people to assign future carbon rights should be examined and called out by the Australian carbon industry as a whole.

Getting a good agreement

Carbon agreements are complex. Not only do they need to navigate the requirements of the ACCU Scheme and any applicable native title rights, but they may also need to cover off on governance and decision-making, sales prices and benefit sharing arrangements, media, and marketing as well as the management of risk and liability from projects. Ensuring you have expert and independent legal advice, as well as potentially business and/or financial and project specific advice is crucial to getting a good agreement.

Given the potential lengthy duration of carbon agreements as well as the volatility of the carbon market ensuring there are provisions for review, including of benefit sharing arrangements, is also key to an equitable agreement.

There are a number of resources that can assist navigate some of the particularities of carbon agreements, including the ICIN Indigenous Carbon Projects Guide[88] and The Nature Conservancy's report 'Beyond Beneficiaries: fairer carbon market frameworks', among others[89].

> *"[a]ll major policy and delivery agenda in sea Country and catchments must embrace Traditional Owners as rights holders, requiring action to be framed on a negotiated basis with key decision-makers"*
>
> *Page 60.*

[88] Available here: https://assets.nationbuilder.com/icin/pages/186/attachments/original/1664416438/Indigenous_Carbon_Project_Guide_FULL.pdf?1664416438 [accessed 06 November 2023].
[89] Report available here: https://nature4climate.wpenginepowered.com/wp-content/uploads/2023/08/TNC_Beyond-Beneficiaries-220823.pdf [accessed 06 November 2023].

Recap

- Indigenous people hold legally recognised carbon rights along 66% of the Australian coastline and should have a leading role in projects on their land.
- They can choose their level of involvement, from full ownership to non-participation.
- Free, Prior and Informed Consent (FPIC) is essential, requiring careful planning and information sharing.
- Independent legal, business, and financial advice is crucial for understanding complex proposals and avoiding assigning future carbon rights.
- Carbon agreements should be expertly negotiated, covering governance, sales, risk, and potential adjustments for long-term viability.

Indigenous people, as traditional owners and custodians, landholders, and experienced land managers, have a significant role to play in the development of Australia's emerging blue carbon market.

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8. Conclusion and recommendations

Blue carbon offers significant opportunities for Australia, both in terms of climate mitigation and economic benefits. At this stage, there is only one existing blue carbon method under the ACCU Scheme (for the reintroduction of tidal flows), but a number of methods are currently in the research phase, as well as the potential to implement blue carbon projects under a voluntary carbon market scheme. In addition, there is significant potential for broader (non-carbon) nature-based solutions within coastal ecosystems, including in Australia's developing Nature Repair Market.

Indigenous people, as traditional owners and custodians, landholders, and experienced land managers, have a significant role to play in the development of Australia's emerging blue carbon market.

Where Indigenous people have recognised land interests, they are strongly positioned (from a rights perspective) to lead blue carbon project establishment and operation. Unfortunately, they are rarely resourced or informed adequately to leverage this position. Where these land interests do not exist, Indigenous people are at a significant disadvantage, and are unlikely to access the benefit of blue carbon projects without affirmative government policy and initiatives.

International guidance on both blue carbon projects and Indigenous rights strongly supports the position that, regardless of underlying tenure, and where it aligns with Indigenous aspirations to do so, Indigenous people should be placed in a leadership role in relation to blue carbon projects.

The Australian Government, in partnership with State and Territory Governments should:

- Adopt a policy position granting Indigenous people the rights to own and sell carbon in coastal ecosystems where the Crown would otherwise have the carbon right (i.e., outside of privately or Indigenous owned lands).
- Adopt a policy position that in all ACCU Scheme projects where the Crown (as either State, Territory or Australian Government) holds an eligible interest, Indigenous people must also be consulted in the project development.
- Prioritise the development of ACCU Scheme Methods that are applicable to the Indigenous estate
- Provide financial and technical assistance to Indigenous people to help them develop and implement blue carbon projects, including the establishment of a start-up fund.
- Work with Indigenous people to develop and implement cultural and environmental safeguards for blue carbon projects, including examining existing cultural heritage protection laws to ensure cultural heritage will be adequately protected in relation to any proposed carbon project, including intangible cultural heritage.
- Examine the operation of non-ACCU scheme carbon projects in Australia, and provide guidance on

    - the protection of Indigenous rights in relation to these projects.

    - the export of non ACCU carbon units from Australia, including the ability to transfer for an ITMO and sell into the Article 6 Paris market.

Other stakeholders

- The default governance model for blue carbon projects should be to position Indigenous people as project

owners, or equal joint partners in the project.

- Proponents should engage collaboratively with all interest holders from the outset of any blue carbon project. This will help to build support for the project and increase the chances of success.
- The principles of FPIC must be embedded in all aspects of the carbon and emerging nature repair market including blue carbon and coastal ecosystem projects (including consultation with native title claimants).
- The Australian carbon industry should call out the practice of assigning future carbon rights through pilot or research projects, with safeguards to avoid the exploitation of Indigenous rights.

Indigenous people should

- carefully consider the type of blue carbon program and project they want to use, and should seek expert advice on project boundaries, land tenure, and technical matters.
- be aware of the potential market opportunities outside of carbon, such as biodiversity offsets and nature repair projects. Combining a carbon project with another type of project may increase its financial viability.
- carefully review and understand any agreements they are asked to sign. Be aware of any hidden clauses and don't agree to anything you don't understand.
- be aware that carbon or nature repair projects can be ran by Indigenous people without the involvement 3rd party service providers (similar to how the majority of Savanna Burning projects on Indigenous lands are 100% owned and operated by Indigenous people without 3rd party service providers involved).
- seek independent advice before entering into any blue carbon project agreements. This will help to ensure that your interests are protected.



Great Barrier Reef, QLD, Australia, stock photo

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