

Carbon Farming Scorecard Report

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RESEARCH PARTNER



Acknowledgements

The Carbon Market Institute (CMI) acknowledges the Traditional Custodians of Country throughout Australia and their continuing connection to land, water and culture. We pay our respects to their Elders - past, present and emerging.

CMI is the industry association for business leading the transition to net-zero emissions. In addition to broader industrial decarbonisation imperatives, CMI is focused on building a negative-emissions, carbon avoidance and sequestration industry that can assist Australia's transition to around 50% reductions by 2030 and net-zero emissions before 2050. We believe market-based approaches to emissions reduction provide efficient and effective frameworks to drive the opportunities and investment required.

This report is the first product produced by CMI's research initiative. The views, findings and recommendations are those of Carbon Market Institute (CMI), however, CMI would like to acknowledge KPMG Australia's assistance and support.

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Summary

Australia's carbon farming industry has the potential to make significant contributions to our national and global emissions reduction challenge, but this must not come at the expense of integrity and real and scaled up emissions reductions.

The CMI's Carbon Farming Scorecard presents a snapshot of how Australia's states, territories and the federal government are supporting carbon farming and its associated benefits. It evaluates their progress on fostering growth and ambition across the domestic carbon farming industry, whilst implementing consistent and predictable policies to ensure transparency and integrity and facilitate clear demand signals that provide supplier confidence and encourage private investment.

The results reflect the fact that Australia has established a framework and oversight to foster a world-leading carbon farming industry. The policies of Queensland in particular, and the resources it have made available acknowledge the significant role carbon farming can play in achieving state emissions reduction commitments. Whilst all other jurisdictions make reference to this potential, their support for carbon farming is not as comprehensive based on the criteria considered, although this is evolving in all cases.

Overall, the report illustrates a sound federal framework, exploring new initiatives that need to be developed, but it requires greater ambition. With a stronger framework, Australia's carbon farming sector has an opportunity to play a key role in driving down emissions, supporting climate repair and resilience, driving innovation, investment, and generating jobs, revenues and other cobenefits for communities across the country.

However, there is still a clear need to realise many of these stated ambitions and link them to the required scale and urgency of industrial decarbonisation policies.

For the market to reach its potential, there also needs to be long term, reliable, structural demand drivers, data management and capacity building that support investment. Continued review and transparency will be critical to build confidence in the integrity of carbon credits, their governance, and their role in achieving climate, environmental and economic benefits.

Results

O Adva	nced	Queensland Federal government
O Intern	mediate	New South Wales South Australia Western Australia Victoria
O Unde	r-developed	Tasmania
	i -developed	Northern Territory
C Limit farmi	ed carbon ing scope	ACT

Although efforts have been made to ensure all relevant, publicly available resources have been considered, it is recognised that to fully ascertain how carbon farming is supported in each jurisdiction may require a broader consideration of policies and initiatives which influence carbon farming (e.g. those associated with land tenure, land clearing, etc) and their interactions. It is also acknowledged that some Australian governments, such as the Australian Capital Territory, have less capacity to support carbon farming projects relative to the other jurisdictions considered.

Key Findings



Carbon farming is a key element of net-zero goals

Carbon farming and sequestration is recognised as a critical element of almost every Government's net-zero strategy. However, to date only some Governments have enacted substantial policies to realise these ambitions and link them to the required scale and urgency of industrial decarbonisation policies.

Valuing co-benefits from carbon farming is an emerging focus for Governments

A focus on recognising and valuing co-benefits of carbon farming projects is emerging across all jurisdictions. This has been a way for Governments to frame their carbon farming offering and meet broader environmental, indigenous and economic goals.

Federal frameworks underpin many State and territory action

The carbon credit methodologies and frameworks supporting the ERF and Safeguard Mechanism play an important part in the broader architecture used by states and territories, who add to and leverage these frameworks. It is important that the integrity around these frameworks is maintained, as this impacts the potential for future international trading of units. The strong interrelation means the Federal Government has a role in expanding or restricting subnational opportunities and developments.



There are more opportunities for Governments to leverage private finance

While some Governments have launched initiatives to grow and leverage private finance and investment, many opportunities remain. This includes ensuring there is sufficient demand for land-based carbon credits.

WHAT IS CARBON FARMING?

Carbon farming refers to practices that increase carbon storage in our landscapes, or avoid the release of greenhouse gases such as methane and nitrous oxide, through active management of vegetation, fire, soil or livestock.

In Australia, carbon farming is an established and growing industry, which makes a significant contribution to Australia's climate crisis response, whilst also delivering important environmental, economic, social and cultural benefits across the country. This includes the potential to create new job opportunities and economic benefits in rural and regional areas, including in remote Indigenous communities.

[¬] Governments work within their 」 physical constructs

Natural endowments and land use practices vary across jurisdictions and frame the actions Governments can take to enhance and support carbon farming activities.

Significant opportunity to build capacity in regional areas

The results indicated the need for more extension work and capacity-building across regional areas, with all jurisdictions proving to be under-developed in this area.

Extensive mapping of carbon stock and soil carbon potential underway

Almost all Governments have invested in mapping and developing resources around carbon stock and potential. This forms a solid foundation for carbon farming activities, but there is an urgent need to expand and link national to ecosystem level data mapping and verification.

Need for policies that drive long term systemic demand for carbon farming

Governments have implemented policies to incentivise carbon farming practices. For the market to reach its potential there needs to be long term, reliable, structural demand drivers that support investment and encourage enduring behaviour change.

More can be done

Aside from the immediate and ongoing focus on integrity, there are a range of opportunities and potential that could be utilised by even the highest performing governments to further support carbon farming as a core contributor to Australia's net-zero ambitions.

Australian state of play

Carbon farming plays an important role in the Australian government's emission reduction and offsetting strategy. It and other land management responses are critical in assisting the timely transition to net-zero, alongside rapid industrial decarbonisation.

Integrity and transparency

Carbon is an unusual commodity, and amidst a rapidly growing market, it requires clarity, ambition and transparency in order to build investor and community confidence. This relates not only to the environmental integrity of credits and their governance frameworks, but also corporate commitments and conduct, as well as behavioural integrity in protecting the rights of participants in the emerging carbon market.

It matters for everyone across the carbon supply chain, from a telecommunications company seeking social license as carbon neutral or climate positive; through to a farmer wanting to understand how to bring in additional revenue streams from carbon abatement, or the requirements for neutrality labelling for their commodities.

Despite challenges, over the last decade and in recent weeks Australia has built a highly regulated policy framework, but carbon credits issued still represents just 2% of Australia's emissions over that time.

With the right policy settings, land-based solutions can play an important supporting role in helping meet the twin climate and biodiversity crises, but must not come at the expense of real and scaled up emissions reductions.

For the market to serve its purpose of driving emissions reductions and removals, and directing finance to where it's most needed for mitigation, trust and integrity remain the priority in what is still an emerging and nascent market.

Ongoing review, revision, updates, and improvements to the market by all stakeholders in an inclusive, transparent manner is crucial for the future of carbon farming in Australia.



Australian carbon industry checks & balances:

- Over 100 of Australia's biggest emitters measure and manage their emissions under the Safeguard Mechanism
- The industry is governed by the Carbon Farming Initiative Act (CFI) which has legislated offset integrity principles
- Proposed methodologies are reviewed by an independent body to ensure they comply with the offset integrity standards
- There are 38 methods to create ACCUs and carbon crediting rules are disallowable parliamentary instruments
- ACCUs are considered financial instruments and trading requires a financial services license under ASIC
- All projects must satisfy additionality requirements, as well as a test to ensure no double counting of the abatement
- Assurance audits provide independent verification
 of abatement achieved from project activities
- Projects are subject to permanence requirements and mechanisms to address the reversal of sequestration
- The world-first Australian Carbon Industry Code of Conduct promotes and stewards behavioural integrity, including engagement between carbon service providers, landholders and other market participants

Land sector projects contracted under the ERF

The Clean Energy Regulator (CER) has registered more than 1100 emissions reduction projects under the Emissions Reduction Fund, nearly 80% of which are land-based vegetation, savanna burning or agriculture projects.

Using data from the CER's ERF Project Register [1], and Carbon Abatement Contract Register [2], the map below shows the number of contracted projects in each state and territory, as well as the predicted carbon revenue over the full life of the scheme, with crediting activities occurring from 2015, through until 2031 (note that high level results of the 14th ERF auction have been announced but data is not yet available). Carbon revenue has been determined by multiplying the total contracted abatement (tonnes CO₂e) by the average weighted auction price after thirteen ERF auctions (\$12.28). Across Australia there is approximately \$2.094 billion worth of contracted abatement to be delivered by land sector projects [2].



Growth potential

Independent analysis has shown that the carbon farming emission reduction and removal activities need to more than triple by 2030, alongside essential industrial decarbonisation efforts in order to meet Paris 2030 goals.

Climateworks research in 2020, for example, identified the need for current land-based sequestration to rise to 31 to 114 megatons per year by 2030 [3]. The Grattan Institute has recently estimated a broad spectrum of potential for the industry, with conservative estimates suggesting 30 megatons per year as currently feasible, with the potential for up to 580 megatons possible from reforestation and avoidance activities, and a further 130 megatons possible from direct air capture [4].

International developments

Carbon farming activities, or 'nature-based solutions', are recognised by governments, businesses, and communities as a key contributor towards achieving international decarbonisation goals.

The most recent instalment of the IPCC Report states that emissions must peak by 2025 in order to stay under 1.5 degrees, or even 2 degrees of warming above preindustrial levels [5]. As a result, it recommends deep and urgent emissions reductions in all sectors of all regions of the world.

National commitments currently fall well short of this, with governments needing to take immediate action to both reduce greenhouse gas emissions and remove carbon dioxide from the atmosphere.

The IPCC Report also states that the necessary solutions to mitigate climate change are already available, and to some extent, already in use.

A 2017 study led by the Nature Conservancy [6] found that "the land sector has the potential to deliver up to one third of the cost-effective mitigation needed by 2030 to hold global warming below 2°C, while supporting biodiversity and advancing the United Nations Sustainable Development Goals (SDGs)".

Increasing urgency to address climate change continues to drive demand for land-sector carbon from a range of existing and emerging sources, through both compliance and voluntary carbon markets.

Further fuelling global voluntary carbon market momentum was the clarification of rules for international carbon trading under Article 6 of the Paris Agreement, agreed at COP26 last November [7]. The following indicators reflect this momentum across the market:

- In 2021, following four consecutive years of record growth, the global market for carbon credits grew by over 160% to a record US\$851 bn [8,9].
- Forest & land use credits now make up >60% of credits traded in the voluntary market [10]
- Trade of forest, land use credits increased by >310% between 2019 and 2021 [10]
- Trade of agriculture-based credits increased >870% between 2020 and 2021 [10]

Compared to many countries, Australia has a comparative natural and technical advantage in carbon removal, collectively due to its significant land and coastal resources, mature and modern agricultural sector and an already skilled and knowledgeable carbon sector. In fact, some estimates indicate that up to 7 percent of anticipated global demand for carbon credits by 2030 could be met by carbon projects in Australia [11,12].

International decarbonisation and carbon market drivers

The Paris Agreement and Article 6: The 2015 Paris Agreement [13] sent a clear signal to the global economy that the trajectory of global emissions must be down. Agreement on Article 6 of the treaty in 2021 provided clarity on cross boarder carbon trading necessary for global market development.

National and sub-national government action: With increasing urgency to address emerging climate impacts, Governments are committing to net-zero by or before 2050, with solutions such as carbon farming becoming a foundation of global trade and economic development.

International trade implications: With many of the world's largest economies setting net-zero targets and some signalling future carbon border adjustment mechanisms (CBAMs), there is an incentive for countries and multinational corporates to invest in options to decarbonise their product and service portfolios.

Global voluntary market value and carbon credits generated by project category [10]





Investor pressure: With climate change and global economic decarbonisation identified as critical investment risks, transitioning portfolios from carbon intense to low carbon activities and sequestration technologies, is now a priority.

Corporate climate action: Companies are decarbonising and procuring carbon credits to mitigate their climate risks and maintain their social license to operate. Those subjected to carbon compliance mechanisms, or potential future emissions liabilities, are engaging in offtake agreements with carbon project developers.

Carbon neutral products and services: As carbon neutral products and services become more prevalent, driving increased offset use, growing consumer knowledge and scrutiny of claims increase associated company reputation risk. An understanding and commitment to high integrity credits is therefore essential.

About the Carbon Farming Scorecard

The carbon farming scorecard provides a snapshot of federal, state and territory government efforts to support and develop the Australian carbon farming sector.



The scorecard is inspired by and closely aligned with the Australian Carbon Farming Industry Roadmap, which was developed as a national strategic framework that outlines how Australia's carbon farming industry can reach its full economic, environmental and social potential.

The Roadmap was developed via consultation with hundreds of stakeholders across the carbon farming supply chain, and has clearly defined actions for governments and other key industry stakeholders out to 2030.

The scorecard comprises 12 criteria against which Australia's federal and state and territory governments have been assessed. These criteria are grouped under the Carbon Farming Industry Roadmap's four critical pillars for industry development. The weighting of each criteria reflects their perceived relative importance.

The scoring is based on publicly disclosed information, including policies, reports, grants, announcements, tools and educational resources. Representatives from each jurisdiction were consulted in an effort to ensure the assessment is based on the most relevant materials - both those directly targeting carbon farming and those which may have relevant impacts and influence.

Each government is ranked based on their cumulative score out of a maximum of 100, with those scoring equal to or below 33% marked as 'under-developed', below 66% as 'intermediate', and above 66% marked as 'advanced'. The ACT has been assessed but not ranked due to its limited carbon farming scope.

Methodology

	Pillar	Criteria	
	Pillar 1: Optimising Frameworks & Market Design	Policy and ambition	Specific carbon f carbon farming i reduction goals a
		Transparency and integrity	Policies and initi and accountabili integrity principl
		Cooperation	Collaboration or government (fec jurisdictional inte indigenous com
	Sillar 2:	Opportunity assessment	Mapping of strat development/im and marine carb efficient approva
	Pillar 2: Unlocking finance and investment	Enabling private investment	Collaboration wi enhance undersi engagement and farming projects
		Capital allocation	Direct funding o carbon farming ı new approaches
	- And	Market architecture and enablers	Development of metrics and mea with internationa
	Pillar 3: Co-Benefits & Creating New Markets	Markets & policy integration	Feasibility / enab co-benefits and
		Valuation	Assessment and farming co-bene and cultural (e.g.
	Pillar 4: Communicating benefits and building capacity	Resources and training	Allocation of res needs, to suppor upskilling/trainir materials to supp
		Innovation	Development of support growth a initiatives
		Advocacy and leadership	Communicating contribution, be carbon farming

Max score farming strategy and integration of into appropriately ambitious emission 10 and policy mechanisms atives to enhance market transparency 10 lity and to develop and implement les and standards carbon farming at all levels of deral, state, local, potential for cross 8 ernational linkages) and with munities tegic opportunities for vestment based on assessment of land 8 on opportunities, and facilitating als ith banks, investors, and insurers to tanding, facilitate carbon market 8 d ensure suitable support for carbon f positive land use change through 8 projects, and using programs to pilot and purchase units new methods, co-benefit taxonomies, 8 asurement frameworks that are aligned al standards and best practice oling of new environmental markets, 8 carbon methods communication of potential carbon efits: environmental, economic, social 8 employment and ecosystem services) sources to assess skills and training rt outreach, education, ng programs and to provide tools and port project developers new tools and technologies that and efficiency of carbon farming 8 to the broader community the nefits and opportunities related to 8

Carbon Farming Scorecard Report

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Scorecard



FEDERAL GOVERNMENT

Over the last decade Australia has developed an internationally regarded verification and carbon crediting framework. Positive enhancements are in development but recent interventions and limited overall ambition has impacted its score. Ongoing transparency and review, enhanced co-benefit recognition, data gathering and capacity building are also critical.



The ACT has comparatively limited capacity for land based carbon storage, although the Territory Government has acknowledged carbon farming as a knowledge gap it is seeking to address. Carbon sequestration has been acknowledged as a potential contributor towards achieving the territory's emissions reduction commitments.



NSW is moving to realise potential with its Primary Industry Productivity and Abatement Program providing the prospect for carbon farming to play a significant role in reaching its 2030 and 2050 emission reduction goals. Greater integration of co-benefits in carbon farming policy can enhance NSW's ambition, combined with stronger frameworks to reverse deforestation.



The Northern Territory has a history of developing and promoting the carbon farming industry through collaboration with Aboriginal Traditional Owners. The state has a focus on savanna burning projects, which are well suited to the Northern Territory's undeveloped landscape.



Queensland is a carbon industry leader and innovator amongst Australia's states and territories, with robust policy, significant direct investment, integration of cobenefits and support for research, innovation and market development. Queensland's high score is in the context of Australia's current carbon industry maturity and the state should continue to raise the bar of government action across all areas assessed. The state's standing could be enhanced through more action in reversing deforestation.



SOUTH AUSTRALIA

South Australia has a focus on carbon farming and blue carbon in its Climate Change Action Plan, with new initiatives and funding underway. It is focused on engaging a wide variety of stakeholders and providing comprehensive public resources.



Tasmania is progressing implementation of carbon farming through direct funding and awareness-raising initiatives. The state's Landcare Action Grants Program has recently been expanded to provide direct funding for carbon farming activities, however the industry remains relatively small overall.



WESTERN AUSTRALIA

Western Australia is starting to play an active role in Australia's carbon farming industry, with carbon farming seen as a contributory tool to achieve the state's emissions reduction goals. Its Carbon Farming and Land Restoration Program is one of several initiatives designed to facilitate development of carbon farming practices in the state.



VICTORIA

Victoria is in the early stages of implementing carbon farming initiatives, but has the potential to leverage existing policies, particularly its BushBank program, which has the potential to make a significant contribution towards the state's sequestration capability and ability to diversify income for rural landowners.



Federal Government

j9	Pillar 1:	POLICY AND AMBITION		
	Optimising Frameworks & Market Design	TRANSPARENCY AND INTEGRITY		
		COOPERATION		
	Dillow 2:	OPPORTUNITY ASSESSMENT		
\$)	Unlocking finance and investment	ENABLING PRIVATE INVESTMENT		
		CAPITAL ALLOCATION		
	Pillar 3: Co-Benefits & Creating New Markets	MARKET ARCHITECTURE AND ENABLERS		
S		MARKETS & POLICY INTEGRATION		
\sim		VALUATION		
	Pillar 4:	RESOURCES AND TRAINING		
	Communicating benefits and	INNOVATION		
	building capacity	ADVOCACY AND LEADERSHIP		

The Australian Government, through its framework for registering and verifying the generation of Australian Carbon Credit Units (ACCUs) and the Emissions Reduction Fund (ERF), has established a solid foundation to foster a world-leading carbon farming industry. This functions as a policy enabler supporting Australia's Long-Term Emissions Reduction Plan [14].

Launched with a committed \$2.5b in Federal funding, the ERF was boosted by a further \$2bn in 2019 through the Climate Solutions Fund; of this, approximately \$2.83b in contracts have been awarded [14,15]. The Federal Government has begun implementation of supportive recommendations identified in "The King Review" and has further initiatives in transparency, cobenefits and extension support in development [16]. Importantly, it has recognised the need for greater participation of third parties in carbon project method development to better understand method needs at the sub-national level.

Recent market interventions, including announcements related to fixed delivery contract changes, proposed additional ministerial carbon project veto powers, and mandating of at least 20% ACCU procurement under the government administered "Climate Active" carbon neutral certification scheme, have been considered in our analysis in the context of potential investor and community concerns related to the extent of associated public consultation [17,18, 19]. These concerns can be addressed through ongoing transparency, review and greater engagement with carbon market stakeholders, including sub-national governments.

Highlights

- Legislated integrity and transparency mechanisms, including the Emissions Reduction Assurance Committee (ERAC) and Offsets Integrity Standards
- \$27.5m King Review Technology Co-Investment Fund, to improve knowledge sharing arrangements and information accessibility
- Ongoing method development. Current priorities include soil carbon, plantation forestry, blue carbon, integrated farming and savanna fire management
- Carbon+ Biodiversity Pilot (C+B Pilot), which rewards farmers through payments and ACCUs, for biodiversity improvements
- FullCAM, an accounting tool for vegetation method abatement estimates
- \$104m committed to the Indo-Pacific Carbon Offsets Scheme to support partnerships and development of national policies and frameworks in the region

- Greater investment in capacity building and outreach in coordination with sub-national governments and community stakeholders. Build on and expand international relationships, to foster bilateral engagement and information sharing and highlight Australian carbon industry strengths
- Engage with communities to ascertain ways to optimise carbon farming, with particular attention to alleviating concerns around 'vacant' land
- Continue to develop and provide cutting-edge technologies to farmers and landscape managers
- Greater ambition driven by stronger corporate compliance, voluntary frameworks and demand drivers

Individual Government Results



Opportunities

- Greater integration and quantification of co-benefits
- Improve consultation with sub-national and third-party actors to strengthen market confidence, encourage private sector investment and ensure regional landscape differences are considered in method development
- Facilitate greater data capture and transparency for independent research and analysis, thereby enhancing integrity

Limited carbon farming scope relative to other states and territories

Australian Capital Territory

ବୁତ	Pillar 1:	2 POLICY AND AMBITION	10
	Optimising Frameworks & Market Design	1 TRANSPARENCY AND INTEGRITY	10
			8
\$	Billar 2:	OPPORTUNITY ASSESSMENT 4	8
	Unlocking finance and investment	1 ENABLING PRIVATE INVESTMENT	8
		1 CAPITAL ALLOCATION	8
D -	Pillar 3: Co-Benefits & Creating New Markets	1 MARKET ARCHITECTURE AND ENABLERS	8
S		1 MARKETS & POLICY INTEGRATION	8
\sim			8
	Pillar 4: Communicating benefits and building capacity	RESOURCES AND TRAINING 4	8
			8
		1 ADVOCACY AND LEADERSHIP	8

ACT's results reflect its comparatively limited capacity for land based carbon storage relative to other Australian states and territories. The ACT Government's policies and initiatives in support of carbon farming are less developed than those of other jurisdictions, although some assessment of biodiversity co-benefits and the potential of soil carbon sequestration has been commissioned by the territory [20, 21].

The ACT have indicated in its Environment, Planning and Sustainable Development Directorate that understanding nature based carbon capture opportunities in the territory is a knowledge gap that it is seeking to address [22], and have flagged land based carbon sequestration as a potential contributor towards achieving the territory's emission reduction targets [23].

Highlights

Score 19%

- Acknowledged the benefits and potential of carbon farming to assist in achieving Net Zero commitments
- Are exploring different methods of carbon farming including soil carbon, reforestation and biodiversity management

Opportunities

- Invest in a more sophisticated and targeted approach to carbon farming to fully capitalise on the land-based carbon sequestration opportunities within the territory
- Seek out collaboration opportunities to promote and enhance carbon farming and sequestration with other domestic and international jurisdictions

Prioritising carbon sequestration in trees and soils

Identifying and enabling opportunities for carbon sequestration in trees and soils is listed within the ACT's Climate Change Strategy as a key priority to 2025 [23]. This strategy takes 'an integrated approach to climate change', which considers potential policy and initiative options in terms of both their mitigation and adaptation outcomes.

Within this context, the territory has flagged increased vegetation cover as an opportunity to both increase carbon sequestration whilst deriving co-benefits such as improved soil productivity, ecosystem resilience and mitigation of excessive heat in urban contexts.



New South Wales

eţe	Pillar 1:	POLICY AND AMBITION		
	Optimising Frameworks & Market Design	TRANSPARENCY AND INTEGRITY		
		COOPERATION		
\sim	Dillor 2:	OPPORTUNITY ASSESSMENT		
(\$)	Unlocking finance and investment	ENABLING PRIVATE INVESTMENT		
		CAPITAL ALLOCATION		
	Pillar 3: Co-Benefits & Creating New Markets VALUA	MARKET ARCHITECTURE AND ENABLERS		
		MARKETS & POLICY INTEGRATION		
\sim		VALUATION		
	Pillar 4:	RESOURCES AND TRAINING		
22	Communicating benefits and building capacity	INNOVATION		
		ADVOCACY AND LEADERSHIP		

The recently released Primary Industries Productivity and Abatement Program (PIPAP) signals the New South Wales (NSW) Government's intent to see land based carbon sequestration play a significant role in achieving the state's emissions reduction commitments [24]. This policy headlines its strong score, however there are also a range of recently announced policies and funding mechanisms that are yet to be fully implemented.

\$125m has been committed to the PIPAP to 2030 and covers three focus areas: market development and industry foundations (\$52m); building critical mass and capacity (\$72m); and accelerating finance for natural capital and low carbon farming (\$1m) [24].

Whilst focus to date has been on the carbon sequestration potential of NSW's national parks through its Carbon Positive by 2028 initiative [25, 26], the new PIPAP marks a shift towards greater investment in, and wider adoption of carbon farming to contribute to the state's ambitious emissions reduction targets of 50% by 2030 and net-zero by 2050.

Highlights

- Primary Industries Productivity and Abatement Program recently released
- Government partner of the Carbon Industry Code of Conduct – one of only two jurisdictions (the other being Queensland)
- Detailed mapping of state's soil properties and carbon stocks
- Studies on co-benefits and carbon farming optimisation, including formal modelling of farm-scale trade offs between production and carbon farming

Opportunities

- Development of a co-benefits standard would bolster integrity of carbon farming initiatives
- Provision of carbon farming training and educational resources would encourage industry participation
- Further focus on private sector investment (Focus Area 3 PIPAP), on a level similar to Focus Areas 1 and 2 would enhance carbon farming industry
- As with QLD, Further effort to "reverse deforestation must be made to support integrity of carbon farming efforts



On-Farm Carbon Advice Project – PIPAP

An early outreach initiative, the On-Farm Carbon Advice Project is a pilot project designed to unlock significant abatement opportunities, enhancing both farm productivity and business resilience as part of the Primary Industries Productivity and Abatement Program.

It will offer:

- a whole farm planning service with practical knowledge and examples of implementation of carbon abatement;
- a concierge service to identify carbon abatement projects that are suitable for generating carbon credits; and
- measurement and verification through developing new protocols.

The project will initially support a specific group of interested farmers, with future expansion possible [24].



Northern Territory

କୁନ	Pillar 1: Optimising Frameworks & Market Design	POLICY AND AMBITION	10
		2 TRANSPARENCY AND INTEGRITY	10
		COOPERATION 4	8
\$	Pillar 2: Unlocking finance and investment	OPPORTUNITY ASSESSMENT	8
		1 ENABLING PRIVATE INVESTMENT	8
		1 CAPITAL ALLOCATION	8
	Pillar 3: Co-Benefits & Creating New Markets	MARKET ARCHITECTURE AND ENABLERS O 3	8
S		MARKETS & POLICY INTEGRATION O 3	8
\sim			8
	Pillar 4: Communicating benefits and building capacity	RESOURCES AND TRAINING 3	8
			8
		ADVOCACY AND LEADERSHIP 2	8

The Northern Territory has a number programs and policies under development and consultation, however there is still heavy reliance on the federal scheme to date.

Carbon offset industry development is flagged as an aspect of realising the territory's net-zero emissions goal [27], which includes a stated interest in research, development and piloting of new carbon credit generation methods that are suitable for the territory's environment and industries [28], A skills development strategy to support carbon industry development is due to be delivered at the end of 2022 [29].

Twenty six of the 28 registered ERF projects in the Northern Territory are savanna burning projects. The savanna burning method aligns with traditional land management practices, utilising local Traditional Owner skills and knowledge [30]. This method is also well suited to the Northern Territory's undeveloped landscape [30].

Highlights

- Currently creating a skills development strategy to ensure new opportunities in low carbon economies can be capitalised upon
- Support provided to the Indigenous Carbon Industry Network
- A Land Based Carbon Abatement program is being developed to improve participation in the carbon market

Opportunities

- Assist in the development of new carbon farming methodologies that are suitable for implementation in the Northern Territory
- Provide tailored grants to landholders/owners to increase uptake of carbon farming
- Build on and enhance support provided to the Indigenous Carbon Industry Network
- Increase transparency through becoming a government partner of the Australian Carbon Industry Code of Conduct

Savanna burning projects

Savanna burning reduces fuel loads, thereby reducing the intensity and frequency of wildfires and associated greenhouse gas emissions. Savanna burning projects are estimated to have substantially reduced Australia's greenhouse gas emissions. It is estimated that the 78 current savanna burning projects across northern Australia accounted for 10% of the emissions avoided nationally to date under the Emissions Reduction Fund. Most of these, avoided emissions are attributable to projects in the Northern Territory.

Most savanna burning projects are on Aboriginal land. Indigenous carbon credits attract a premium on voluntary markets and generate economic, social and cultural co-benefits for Aboriginal communities The Aboriginal carbon industry now generates \$20 million per year in carbon credits and has generated nearly \$100 million in revenue to date. This funds local jobs, ranger programs, outstation development, culture camps and other community projects [31].

Score 80 Queensland

କୁନ	Pillar 1:	POLICY AND AMBITION		
	Optimising Frameworks & Market Design	TRANSPARENCY AND INTEGRITY		
		COOPERATION		
\sim	Billor 2:	OPPORTUNITY ASSESSMENT		
(\$)	Unlocking finance and investment	ENABLING PRIVATE INVESTMENT		
<u> </u>		CAPITAL ALLOCATION		
	Pillar 3: Co-Benefits & Creating New Markets VALUATION	MARKET ARCHITECTURE AND ENABLERS		
		MARKETS & POLICY INTEGRATION		
\sim		VALUATION		
	Pillar 4:	RESOURCES AND TRAINING		
22	Communicating benefits and building capacity	INNOVATION		
		ADVOCACY AND LEADERSHIP		

Through its robust policy, capital investment, and integration of co-benefits, Queensland is a leader and innovator amongst Australia's states and territories based on the scorecard assessment criteria.

The \$500m Land Restoration Fund (LRF), announced in 2017, is Queensland's chief carbon farming policy [32]. In addition to supporting research, innovation, and market development, the associated self-sustaining Land Restoration Fund Trust serves to expand carbon farming in the state by contracting projects that deliver carbon credits and co-benefits. \$87m was invested in 2020, and \$25m will be made available through a second investment round in 2022 [33]. The LRF will be bolstered by the Natural Capital Fund, which will facilitate private-sector co-investment by connecting industry, business and farmers to partner in regenerative projects. \$35m was allocated to this fund in the state's 2021-22 budget [34].

Highlights

- Government partner of the Carbon Industry Code of Conduct one of only two jurisdictions (the other being New South Wales)
- Significant investment in carbon farming through the Land Restoration Fund Trust and Natural Capital Fund.
- Co-Benefits Standard (1 of only 2 states/territories)
- Use of third-party frameworks to measure co-benefits (Accounting for Nature and Core Benefits Verification Framework for First Nations)
- Approved Adviser Program to assist landholders with carbon farming and LRF advice
- Regrowth Benefits interactive mapping tool, which maps the viability, carbon potential and biodiversity benefits of native forest regrowth

Opportunities

- · Further effort to reverse deforestation must be made to support integrity of carbon farming efforts
- Continued community outreach and resources to further highlight carbon farming economic and environmental benefits and support a shift from agricultural land clearing to carbon farming
- Maintain a proactive approach to carbon farming research and methodology development
- Queensland's scoring reflects progress within the context of current carbon industry maturity. The state should continue to progress and raise the bar of government action across all of the areas assessed



Blue Heart Sunshine Coast

Based in the Maroochy River Catchment on the Sunshine Coast, Blue Heart is a collaborative project between the QLD Department of Environment and Science, Sunshine Coast Council and local water and sewerage provider, Unity Water.

Spanning 5000 hectares, the project intends to demonstrate how land can be managed to improve water guality, biodiversity and carbon sequestration via the Blue Carbon method. Blue carbon refers to carbon stored in the plants and soils of coastal wetlands. It is a priority area of research and environmental market development for the Queensland Government's Land Restoration Fund, and a carbon farming method where Queensland has a distinct advantage due to its large coastline.

The project is being delivered in collaboration with the Traditional Owners, the Kabi Kabi First Nations people, to ensure cultural heritage and practices are honoured, and associated economic and environmental opportunities explored [35].



South Australia



Tas	smania	Under-developed O In	itermediate O Advanced
	Pillar 1:	POLICY AND AMBITION 5	10
610	Optimising Frameworks &	TRANSPARENCY AND INTEGRITY 4	10
м	Market Design	COOPERATION 4	8
\sim	Pillar 2: Unlocking finance	OPPORTUNITY ASSESSMENT 4	8
(\$)		I ENABLING PRIVATE INVESTMENT	8
\smile	and investment	CAPITAL ALLOCATION 3	8
	Pillar 3:	1 MARKET ARCHITECTURE AND ENABLERS	8
S	Co-Benefits & Creating New	1 MARKETS & POLICY INTEGRATION	8
Marke	Markets	VALUATION 4	8
	Pillar 4: Communicating benefits and building capacity	RESOURCES AND TRAINING 4	8
			8
		1 ADVOCACY AND LEADERSHIP	8

South Australia has a number of key policies and initiatives, however these are still in early stages and yet to be fully implemented and scaled up. Expansion of carbon farming and blue carbon is included as a key objective within South Australia's Climate Change Action Plan 2021 to 2025 [36]. And the state is currently implementing a Growing Carbon Farming Pilot, a \$1 million initiative to encourage carbon farming adoption through grants of up to \$100,000 [37].

The government has also flagged its desire to engage widely with stakeholders across the carbon market supply chain and provide publicly available resources and tools for carbon market participants [38, 39].

The recent change in government will likely increase support for carbon farming, with policies to increase funding for heritage agreements and to introduce a Biodiversity Act [40, 41].

Highlights

- The Growing Carbon Farming Pilot, a \$1 million initiative to 'encourage carbon farming adoption and build the carbon market in South Australia'
- The Soil Carbon Forward Plan, created to inform the state's policies and action regarding soil improvement and longterm carbon storage
- A range of publicly available educational materials and resources, including workshops, factsheets and presentations on carbon farming, and soil and pasture management
- Blue Carbon Strategy for South Australia working towards state-wide, evidence-based projects and research into blue carbon ecosystem protection and restoration

Guide to Carbon Planting

This guide has been created from detailed modelling to provide a broad introduction and assist with feasibility assessments of carbon plantings. The guide explains what carbon plantings are, and outlines potential environmental risks and opportunities associated with carbon planting in South Australia.

The guide covers carbon sequestration potential, biodiverse plantings, soil stabilisation, soil water and ground water. Detailed maps, data layers and regional summary maps are also provided to assist with landscape-scale planning [42].

Opportunities

- · Provide enhanced funding opportunities to support carbon farming in the state, through direct funding or engagement with investors
- Improve valuation and communication of carbon farming co-benefits to foster interest in the sector
- Supplement educational materials with tools and technologies specifically relevant to carbon farming in South Australia
- Become a government partner of the Australian Carbon Industry Code of Conduct

Like some other states, Tasmania has relied heavily on the federal scheme up until now, and has the opportunity to take a greater sub-national leadership role once its policies and initiatives are scaled up.. Its Landcare Action Grants Program [43] has recently been expanded to provide direct funding for on-ground works associated with carbon farming initiatives. The state also delivers carbon farming workshops [44] for potential program participants. Through the Carbon Farming Advice Rebate Pilot Program [45]. Tasmania provides funding for primary producers to obtain carbon farming advice.

While there are currently a limited number of active carbon farming projects in Tasmania, farms such as the Tasmanian Agricultural Company [46] are also helping to raise awareness of carbon farming co-benefits such as environmental restoration and enhanced business resilience.

Highlights

- · Provision of training and information resources, including carbon farming workshops, fact sheets, case studies and access to funds to seek carbon farming advice through the Carbon Farming Advice Rebate Pilot Program
- Landcare Action Grants Program for funding of onground works needed to access the carbon credit market

Opportunities

- Collaboration and engagement with potential investors to facilitate private investment in carbon farming projects.
- Provision of enhanced direct funding to support carbon farming in the state
- Valuation and promotion of state-wide carbon farming co-benefits to foster broad interest in the sector
- Become a government partner of the Australian Carbon Industry Code of Conduct

Carbon Farming Advice Rebate Pilot Program

The Tasmanian Government's Carbon Farming Advice Rebate Pilot Program was a 2021 election commitment to facilitate carbon industry participation amongst Tasmanian primary producers.

The program provides primary producers with rebates of up to \$10,000 for consultation with approved advisors about the costs and benefits of accessing carbon credits, auditing requirements, and on-ground actions that are eligible for carbon credits. The state has provided \$250,000 of funding for the initial pilot [45].





Victoria is in the early stages of implementing and facilitating carbon farming initiatives and policy.

Carbon Farming in Victoria is driven by the state's legislated Climate Change Act [47] and is linked to three of five pledges made in Victoria's Climate Change Strategy [48]. The state's leading policy is its Carbon Farming Program and the BushBank program, earmarked for \$15.3m and \$76.98m of state funding respectively [49].

In addition to carbon industry specific policies and initiatives, support is also available through other funding initiatives (such as the \$2b Breakthrough Victoria program), which could support development of innovative tools and technologies for the sector [50].

Highlights

- BushBank Program focussed on enhancing biodiversity and opportunities for Traditional Owners
- \$600,000 investment into Blue Carbon Research, including mapping and assessment of carbon farming potential
- Port Phillip and Westernport Catchment Management Authority Growing Carbon Pilot Project

Opportunities

- Further articulation of the way in which the Carbon Farming Program will operate in practice
- Greater cooperation with Local Government to enhance understanding of Australia's carbon industry amongst farmers and land managers
- Greater integration and guantification of co-benefits potentially through implementation of a co-benefits standard
- Become a government partner of the Australian Carbon Industry Code of Conduct

BushBank Program

Part of the land use, land use change and forestry sector emissions reduction pledge of Victoria's Climate Change Strategy, the BushBank Program is a \$76.98m initiative to incentivise private and public landowners to restore and protect biodiversity [51].

A fundamental aspect of this initiative is the centrality of co-benefits, specifically, the economic opportunities realised for Traditional Owners through access to carbon markets. The program provides Traditional Owners with the opportunity to identify priority values and locations for restoration, pursue training and capacity building opportunities, investigate new emissions-reduction methodologies for cultural practices, and seek out natural-resource related economic opportunities.

Announced in May 2021, the Program is still in its infancy, though is expected to make a significant contribution towards enhancing Victoria's carbon sequestration capability and contribute to economic diversification of rural landowners.



We	stern	Australia		O Under-develo	oped O Intermediate	• Advanced
	Pillar 1:	POLICY AND AMBITION	6 4			10
6 [†]	Optimising Frameworks &	TRANSPARENCY AND INTEGRITY		5		10
	Market Design	COOPERATION	03			8
	Pillar 2: Unlocking finance and investment	OPPORTUNITY ASSESSMENT	3			8
(\$)		ENABLING PRIVATE INVESTMENT	3			8
\cdot		CAPITAL ALLOCATION		04		8
	Pillar 3: Co-Benefits & Creating New Markets	MARKET ARCHITECTURE AND ENAB	LERS	0 4		8
- S		MARKETS & POLICY INTEGRATION		0 4		8
\sim		VALUATION	03			8
<u>88</u>	Pillar 4:	RESOURCES AND TRAINING			5	8
	Communicating benefits and building capacity	INNOVATION	3			8
		ADVOCACY AND LEADERSHIP		04		8

Western Australia recognises that carbon farming is a pragmatic tool which will contribute to achievement of its 2050 net-zero emissions goals and has several initiatives in place.

In July 2021, the Carbon Farming and Land Restoration Program (CF-LRP) was announced, backed by \$15m in state funding [52]. Focussed on the state's South West Land Division, the Program intends to unlock the agriculture sector's potential to sequester carbon and generate associated co-benefits. Integrated into the Federal ERF, the program includes a 'Future Carbon Stream' to support innovation in the sector through the funding of pilot activities and support for interested academic and research institutions [52].

Other state initiatives include the release of three million hectares of Crown land for carbon farming and enabling pastoralists to earn carbon credits through Human Induced Regeneration projects [53, 54]. Greater direct funding and leveraging private sector investment could see Western Australia play a leading role in Australia's carbon industry,

Highlights

- Priority Investment Co-benefits Standard 1 of 2 Australian states and territories to have a co-benefits standard
- CF-LRP Co-benefits Information Portal, a GIS mapping tool which identifies potential co-benefits
- Provision of carbon farming workshops
- Amendments to the Forest Products Act to allow the Forest Products Commission to create and trade Australian Carbon Credit Units

Opportunities

- Collaboration and engagement with potential investors to facilitate private investment in carbon farming projects.
- Continue to explore making pastoral land available for carbon farming
- · Enhanced engagement and collaboration with resource prospecting groups and mining organisations
- Become a government partner of the Australian Carbon Industry Code of Conduct

Carbon Farmers Voucher Program

To complement the State Government's \$15 million Carbon Farming and Land Restoration Program (CF-LRP), the Carbon for Farmers Voucher Program will provide financial support for farmers seeking expert advice on integrating carbon farming into their business.

Vouchers of up to \$10,000 will be accessible to eligible farmers planning a carbon farming sequestration project in the South West Land Division, and will contribute towards the development of a vegetation or soil Land Management Strategy (LMS). The funds can be used to engage agronomists and other experts in carbon farming and natural resource management [55].

The initiative is a practical way in which to clarify complexities surrounding carbon farming and encourage responsible land management whilst also encouraging participation in the CF-LRP,





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 <u>Clean Energy Regulator, Method development tracker, 2022</u>

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 <u>2021</u>

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Carbon Farming Scorecard Report

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Detailed scorecard and assessment rationale

Pillar	Criteria		Max	Score	Rationale
				8-10	Carbon farming strategy with clear indication of its contribution
1	Policy and	Specific carbon farming strategy and integration of carbon farming into	10	4-7	Aspirational statements on carbon farming not specifically linke
AĭA	unbulon	appropriately and to as emission reduction goals and policy meenanisms		1-3	Yet to disclose a carbon farming strategy, targets or aspirations
Pillar 1:	Transparency			8-10	Government partner of or financial contributor to the Australia and initiatives to ensure integrity, accountability and transparer and transparency.
Optimising Frameworks &	and integrity	develop and implement integrity principles and standards	10	4-7	Endorsement of the Australian Carbon Industry Code of Condu integrity, accountability and transparency
Market Design				1-3	Yet to progress or engage with integrity and transparency initia
				7-8	Proactively engaging formally
	Cooperation	Collaboration on carbon farming at all levels of government (federal, state, local, potential for cross jurisdictional international linkages) and with indigenous	8	4-6	Informal ad hoc information sharing
		communities		1-3	Meeting basic engagement obligations (e.g. related to non-carl planning and approvals)
		Mapping of strategic opportunities for development/investment based on		7-8	Published formal mapping of the opportunities (methods, areas
(¢)	Opportunity assessment	assessment of land and marine carbon opportunities, and facilitating efficient	8	4-6	Some indication of opportunity assessment but nothing/compa
		approvals		1-3	Yet to map opportunities
Diller 2:	Enabling private investment	Collaboration with banks, investors, and insurers to enhance understanding, facilitate carbon market engagement and ensure suitable support for carbon farming projects.		7-8	Implementing policies, regulation and initiatives, and proactive private investment and/or drive private sector demand
Filldi Z.			8	4-6	Some engagement and consultation with financial institutions and
and investment				1-3	Yet to engage on or implement specific policies, regulation and
		Direct funding of positive land use change through carbon farming projects, and using programs to pilot new approaches and purchase units		7-8	Significant public funding specifically allocated to carbon farming
	Capital allocation		8	4-6	Some public funding for carbon farming or complimentary proj
				1-3	Yet to provide direct funding for carbon farming projects
De	Market	Development of new methods, co-benefit taxonomies, metrics and measurement frameworks that are aligned with international standards and best practice		7-8	Actively engaged in development of principles, methodologies,
	architecture		8	4-6	Indicating some interest but yet to engage on market architect
19	and enablers			1-3	Yet to engage on market architecture enablers
Dillar 3.	Markets &		on 8	7-8	Conducting feasibility studies and/or implementing robust poli
Co Ropofits &	policy	Feasibility / enabling of new environmental markets, co-benefits and carbon methods		4-6	Indicating intent but yet to either conduct feasibility studies or i
Creating New	integration			1-3	Yet to progress or engage with activities to enable markets and
Markets		Assessment and communication of potential carbon farming co-benefits: environmental, economic, social and cultural (e.g. employment, ecosystem services,	8	7-8	Quantifying and communicating the value of carbon farming co-be
	Valuation			4-6	Have acknowledged the potential co-benefits of carbon farmin
"Sustainers"	Contraction of the		1 0 p	1-3	Yet to recognise the co-benefits of carbon farming
		Allocation of resources to assess skills and training needs, to support outreach.		7-8	Appropriate education, outreach and training programs/resour
00	Resources and training	education of resources to assess skills and training freeds, to support out each, education, upskilling/training programs and to provide tools and materials to support project developers	8	4-6	Some exploration and assessment of skills and training needs
				1-3	Yet to allocate resources to skills and training
				7-8	Have developed tools and technologies that are available to sup
Pillar 4: Communicating	Innovation	Development of new tools and technologies that support growth and efficiency of carbon farming initiatives	8	4-6	Engaged in and/or exploring development and piloting of tools
benefits and	1	carbon ranning initiatives		1-3	Yet to get involved in the development of tools and technologie
building capacity				7-8	Proactively leading communication on carbon farming and asso
	Advocacy and leadership	and Communicating to the broader community the contribution, benefits and opportunities related to carbon farming	8	4-6	Participating in some communication on carbon farming and a
				1-3	Yet to communicate on carbon farming with the broader comm

n to domestic climate goals and alignment with global net zero goals

ed to broader decarbonisation goals

an Carbon Industry Code of Conduct, implementation of aligned policies ncy, and lack of policies and initiatives which may undermine integrity

ict and/or exploration of some aligned policies and initiatives related to

tives

bon farming specific legislative/regulatory requirements such as

, volume of carbon abatement/credits, economic potential, etc)

aratively little publicly available.

ly engaging with financial institutions to facilitate and incentivise

exploration of potential ways to attract or incentivise private investment

initiatives to encourage investment

ng projects within a clearly defined allocated funding window

ects, or indication of intent

, taxonomies, metrics and MRV frameworks

ture enablers

cy incorporating co-benefits (including financial incentives)

mplement policy incorporating co-benefits

policy integration

enefits to support creation of new economic opportunities and markets

g and have indicated an intent to quantify economic potential

ces have been made available

oport carbon farming initiatives

and technologies

ociated benefits

ssociated benefits

nunity



Additional materials

Useful Links

- <u>Carbon Farming Industry Roadmap</u>
- Carbon Farming Marketplace Key Stakeholders
- Recent CMI government submissions
- Department of Industry, Science, Energy and Resources: Proposed Amendments to the CFI Rule on Excluded Projects
- Department of Industry, Science, Energy and Resources: Proposed Carbon Credit Rule changes
- Recent CMI statements
 - IPCC Report: Australia faces "double-edged sword" moment on climate action
 - Bittersweet irony as newly recognised agricultural activity subjected to potential veto by Agriculture <u>Minister</u>
 - Working Paper identifies key issues with HIR analysis and suggests ways forward
 - <u>Carbon farming industry must triple in scale as well</u> <u>as address challenges and opportunities</u>
 - <u>Budget lacks urgency and direction, risks wasting</u>
 <u>ERF dividend</u>
 - <u>Carbon market participants refute sensational</u> <u>accusations</u>
 - <u>CMI Response to new analysis regarding carbon</u> <u>abatement methods</u>
 - <u>CMI requests postponement of initial CAC exit</u> <u>window</u>

 - <u>ERF Changes could impact investor & community</u> <u>confidence in growing carbon market</u>
 - <u>Rushed Carbon Credit rule changes "an</u> <u>extraordinary double whammy": CMI</u>
 - <u>"Safeguards" proposal would add unnecessary red</u> <u>tape, impact landholder rights</u>

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