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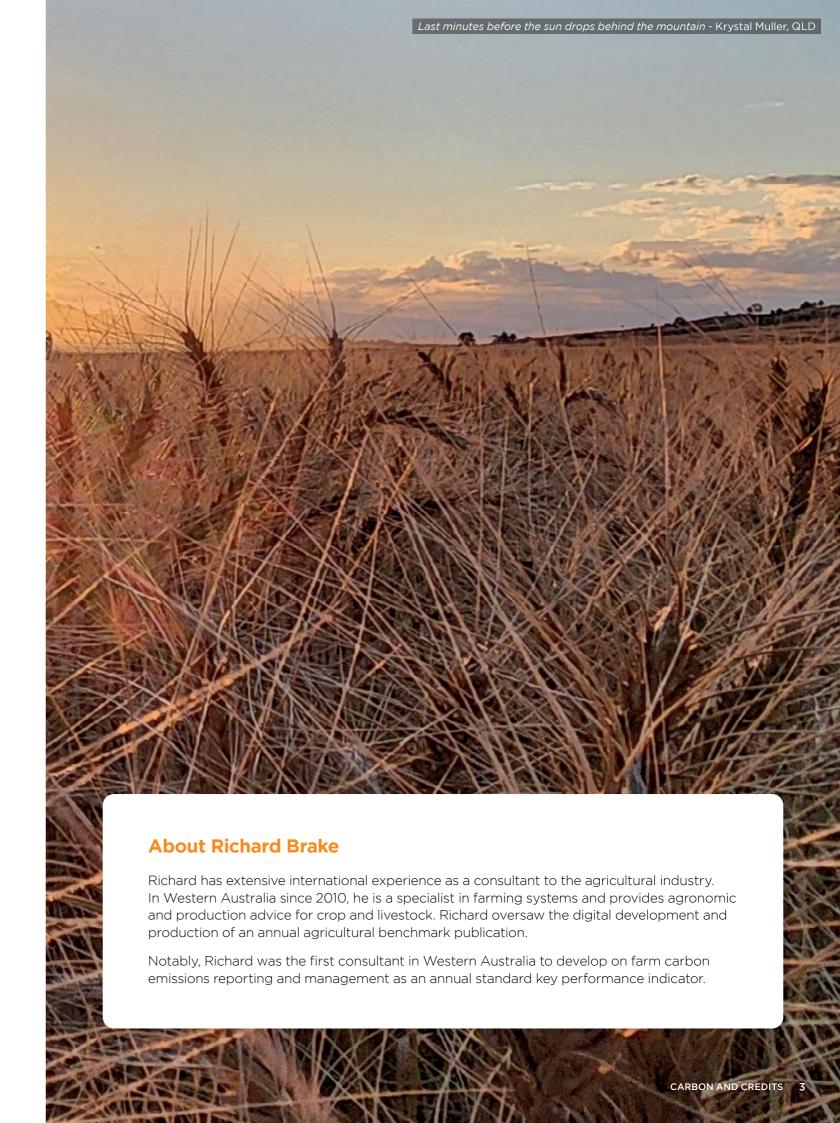
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INTRODUCTION

With greenhouse gas (GHG) emissions and climate change taking centre stage in global agricultural and commercial priorities, understanding key concepts related to carbon has become essential for Australian grain growers.

Growing commercial and investment interest in the carbon market has driven demand for a comprehensive guide to help growers navigate its complexities and potential benefits. In response, this resource has been developed to help growers understand the Australian Carbon Credit Unit (ACCU) Scheme.

Australia's ACCU Scheme has evolved to incentivise emissions reduction and sustainable practices. Initially established under the Carbon Farming Initiative in 2011, it allowed landholders and businesses to earn Australian Carbon Credit Units by reducing greenhouse gas emissions. Over time, it has expanded to include new methods such as carbon sequestration, savanna burning, and industrial emissions reduction. Recent developments aim to enhance transparency in new methodology evaluations and market integrity.

To better understand this guide, it is helpful to first read other resources available to growers, such as GrainGrowers' publications Carbon Calculators Compared 2024 and Carbon and Co-Benefits. At the back of this guide, there is a glossary of key terms and a QR code for useful resources.

What This Guide Does Not Provide

Legal Advice: While this guide outlines regulatory requirements, it does not substitute for legal advice. Specific legal considerations should be discussed with qualified professionals.

Financial Advice: The information provided is for general information purposes only and does not constitute financial advice. Consulting a qualified financial advisor before making any investment or financial decisions related to the ACCU Scheme is recommended. The information provided is based on current understanding and may change over time.

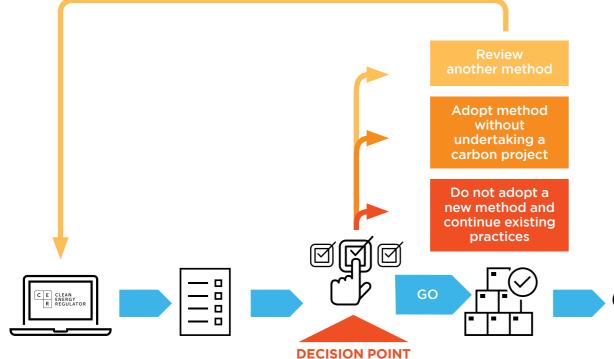
Detailed Methodologies: It does not delve into the specifics of every approved methodology under the ACCU Scheme. Growers will need to consult official guidelines and possibly experts for methodology selection.

Guarantees of Success: Participation in carbon projects is not without risks or challenges. Success depends on factors such as project design, implementation, and regulatory compliance.

THE AUSTRALIAN CARBON CREDIT UNIT SCHEME

STEP BY STEP

Carbon Project Process Overview



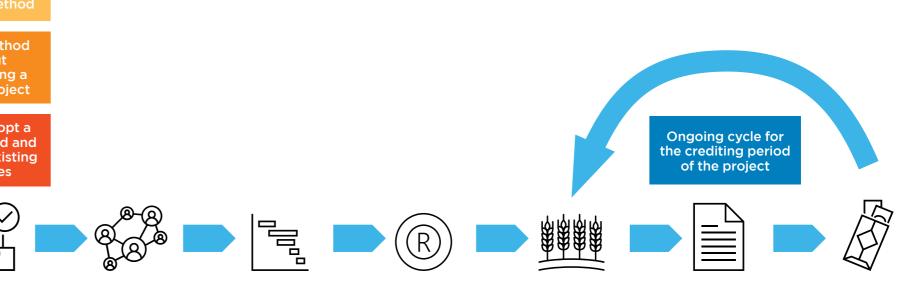
Navigating the Carbon Project Process

A ten-step guide

The investigation, evaluation, planning, and registration of a carbon project is a complex task This guide does not delve into every variation and detail of each carbon project method. Instead, it provides a tenstep overview to help guide individuals or

organisations through the key stages of a carbon project.

This diagram on provides a schematic overview of the carbon project process. Good planning for strategic planting of trees ensures they become an asset not a liability



REVIEW	EVALUATE	DECIDE	ESTABLISH	OBTAIN	DESIGN AND PLAN	REGISTER	IMPLEMENT	REPORT	EARN ACCUs
The methods on the CER website	Method requirements	Suitability and method of the carbon project	The feasibility of the carbon project	Stakeholder consent	The carbon project using the chosen method	The carbon project with the CER	The carbon project using the chosen method	The results according to method requirements	Where one ACCU is earned for every tCO₂e removed or avoided using the chosen method
1	2	3	4	5	6	7	8	9	10

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1. Review the methods

Every carbon project must use an approved method, and the Clean Energy Regulator (CER) website describes a total of thirty-three methods across six project areas. There is typically a range of specific activities that can be undertaken as part of a method. The three project areas most relevant to grain growers are summarised in Table 1.

		Φ	· <u>`</u>
Project Area	Agricultural	Vegetation	Energy Efficiency
Objective	To reduce farming and land emissions	To remove carbon dioxide from the atmosphere and store it as carbon in plants	To avoid GHG emissions through reduced use of electricity and natural gas
Methods	Animal effluent management Beef cattle herd management Estimating soil organic carbon sequestration using measurement and models Estimating sequestration of carbon in soil using default values Fertiliser in irrigated cotton Feeding nitrates to beef cattle	Avoided clearing of native regrowth Designated verified carbon standard projects Measurement based methods for new farm forestry plantations Plantation forestry Reforestation and afforestation Reforestation by environmental or mallee plantings Savanna fire management Tidal restoration of blue carbon ecosystems	Industrial electricity and fuel efficiency method Transport - land and sea
Examples of Included Activities	Applying nutrients to the land through fertiliser Applying lime to remediate acid soils Retaining stubble after a crop is harvested Converting from intensive tillage practices to reduced or no tillage practices Modifying landscape or landform features to remediate land Using legume species in a cropping or pasture system Recycling and reusing animal waste Switching farm animal diets	Reforestation Revegetation Managing safe fire burning practices Protecting native forest or vegetation at imminent risk of clearing	Activity resulting in reduction in emissions intensity from industrial fuel and electricity use Activity resulting in reduction in emissions intensity of road,rail and sea transport and mobile equipment such as mining and agricultural vehicles

Table 1. Summary of ACCU Scheme Agricultural, Vegetation and Energy project methods and activities.

2. Evaluate method requirements

In order to decide its suitability for an operation, the requirements of a method must be very well understood. Even though some features are common across methods, it is important to know that a method will have unique requirements around operational eligibility, activity options, GHG calculation and reporting.

For each method on the CER website, there is a detailed description of the specific activities and requirements that will help inform whether the method suits an operation as a carbon project. A summary of the information provided is in Table 2.

Method Information	Description
Method statement	The nature of the method and what it aims to achieve
When to use	Operational circumstances that may suit this method
Eligibility	Operational criteria that must be met in order to use the method
Project activities	The activity options for the method
Specialist skills	Specialists that must be engaged for the method
Crediting period	The period when ACCUs can be claimed
Calculating abatement	The prescribed method for measuring GHG emissions
Monitoring	Data and information that require on-going collection
Record-keeping	Activities and strategies that must be recorded in writing
Reporting	Items that must be included in each project report
Audits	Confirms that at least 3 audits of the project will be scheduled
Documents and Resources	Links to further information on the method

Table 2. Summary of ACCU Scheme method information.

3. Decide suitability of method & carbon project

When deciding the compatibility of a method with a farming system and its operational objectives, there are some specific and important points to consider.

GHG emissions avoidance vs carbon storage

Methods that avoid emissions offer a high level of certainty in GHG emissions reduction. Carbon sequestration and storage methods, depending on the type, can present more risk.

For example, the sequestration methods involving the establishment and maintenance of forestry plantations are much easier to quantify and verify than sequestering carbon in soil. In Australia, rainfall determines the majority of soil carbon change in a stable management system. Change in soil carbon in mixed cropping systems can often be large and unpredictable, particularly in a country like Australia that has 23% more rainfall variability than most countries in the world. The dynamic nature of soil carbon makes it vulnerable to reversal, especially in the face of an unpredictable and shifting climate.

Project duration

The duration of carbon projects varies according to whether it is avoiding GHG emissions or sequestering carbon. The project duration is further defined by three different project periods.

This is summarised for most projects in Table 3.

	Period				
Project Type	Crediting	Reporting	Permanence		
GHG avoidance	7 years	Between 6 months and 2 years	None		
Carbon sequestration and storage	25 years	Between 6 months and 5 years	25 years or 100 years		

Table 3. Summary of project type and project periods.

Looking at a planting project? Consult the CER guide for expected abatement

The CER provide guidance on expected abatement using a permanent environmental planting offsets project. The information demonstrates the variation in abatement levels across Australia.

Project time periods

Each project time period represents defined stages of a carbon project.

Crediting period: the total time during which a project is eligible to claim ACCUs.

Reporting period: the specific timeframe selected by the project proponent within the crediting period during which a project report is prepared for submission to the CER.

Several reporting periods occur throughout a project's crediting period, and participants must submit reports at the end of each reporting period. ACCUs are issued only after a report is received and assessed. Proponents can vary the frequency of reporting, but reporting must occur within the reporting period set by the CER. The first reporting period begins at the start of the project's crediting period. Each new reporting

period begins immediately after the previous reporting period. All reporting periods must be within the project's crediting period.

Permanence period: the total time over which sequestration from the project must be maintained. The proponent can select a permanence period of 25 or 100 years.

Why permanence?

Permanence means that the CO₂ removed during an ACCU Scheme carbon sequestration and storage project will be kept out of the atmosphere.

If carbon stored in vegetation or soil as part of a project is released back into the atmosphere, it can reverse the environmental benefit of the sequestration project.

Example project timelines

Agriculture: Emissions Avoidance Project. Keith and Clare Bordertown run a mixed farming operation in the South Australian Mallee. They operate a beef and cropping business where they run a Black Angus herd and crop wheat and barley. They have decided to participate in the ACCU Scheme.

Sector Area	Agriculture
Project Type	Emissions avoidance
Project Method	Beef cattle herd management
Crediting period	7 years
Reporting period	Year 1, 2, 4, 6 and 7. Keith and Clare decided to report on the project each year for the first two years, then at two-year intervals before returning to a one-year report for the final year of the crediting period
Permanence period	None. Emissions avoidance projects are not subject to a permanence period



Figure 1. Emissions avoidance example timeline.

Vegetation: Sequestration Project

Miles and Roma Dalby run a mixed farming operation in the Darling Downs. They operate a beef and cropping business where they run a Black Angus herd and crop wheat and barley. They have decided to participate in the ACCU Scheme.

Sector Area	Vegetation
Project Type	Sequestration
Project Method	Plantation
Crediting period	25 years
Reporting period	Year 5, 10, 15, 20 and 25. Miles and Roma decided to report and apply for ACCUs every five years.
Permanence period	25 years. Miles and Roma opted for a twenty-five-year permanence period and not one hundred years.

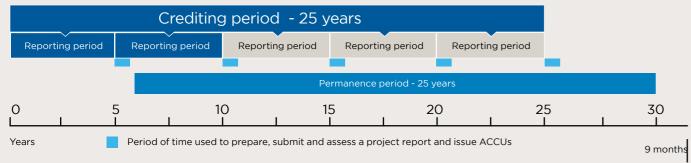


Figure 2. Carbon sequestration example timeline.

Carbon Service Providers (CSPs)

Understand the basics before engaging an expert.

There are many organisations offering valuable services to growers about carbon projects. These carbon service providers (CSPs) are sometimes called project developers, agents, aggregators and advisors.

Some businesses choose to manage their own project, while others will engage professional services for some or all the project. It's helpful to know which project elements can be managed independently before speaking with a service provider so that this can be built into the project. There are many CSPs who can assist to implement a project, for a fee. Not all projects will require a CSP.

CSPs can participate in some or all stages of the project, particularly with the feasibility study, registration, reporting, communication with the CER and the sale of ACCUs. The CSP will charge a fee for their services, which could be a dollar amount or percentage of your ACCUs. It is best to identify which stages of the carbon project cycle are likely to need external support for before engaging with a CSP.

If your project is too small to generate enough ACCUs to cover project costs, you may want to aggregate with other projects using the same ACCU Scheme method to set up a larger project. If you aggregate, it's important to ensure a governance structure is in place that works for all participants. Options include setting up a legal company or a committee that represents the different landholders (if the sites are owned by different people) or engaging the services of an experienced project aggregator.



Questions to ask a carbon service provider

1. How long have they been in business?

The Carbon Service Provider industry is relatively new. Therefore, it attracts many new operators, some with limited experience and no track record. Ask your aggregator about their history, how long they've been in business and how many hectares they have sampled commercially for farmers in Australia. Ask them about inhouse scientists, mapping experts and project managers with a record in research.

2. Do they partner with a training provider?

This is an important question to ask. Ideally, they collaborate with an education and training provider who can provide guidance in implementing the necessary changes to meet the project's eligibility requirements. The combination of training and ongoing support ensures a comprehensive, end-to-end service.

3. What are the set up and ongoing costs?

It's important to compare upfront and ongoing costs of CSPs. A low start-up cost might seem appealing at first glance, but it can be misleading. Often, upfront expenses are shifted into ongoing costs, potentially outweighing any financial advantage. It's essential to understand their cost model, along with the projected returns and the methodology used to calculate those estimates.

4. Do they help with project registration?

One of the main challenges in ACCU Scheme project participation is the extensive paperwork. Some CSPs offer an end-to-end service, handling all the necessary documentation. This saves time and leverages their expertise. Ask if they provide this complete end-to-end service.

5. Are they legitimate?

It's important to verify certain standards of practice to ensure compliance and quality. Ask the CSP to demonstrate that they:

- Are a signatory to the Carbon Industry Code of Conduct.
- Hold an Australian financial services license (AFSL).
- Have other projects already certified with the CER and/or other carbon standards.
- Have a portfolio of successful projects they have implemented and that you can verify meets the Fit and Proper Person (FPP) requirements from the CER. This will ensure that the CSP has not been subject to an investigation or had memberships or accreditations removed.
- Apply the principles of Free, Prior and Informed Consent (FPIC) throughout every stage of the project.

Always seek professional third-party advice before committing to progress a project.

The importance of professional advice

Participating in the Australian Carbon Credit Unit (ACCU) Scheme requires a sound understanding of carbon management, regulatory frameworks, and market dynamics. While some growers may undertake projects independently, the involvement of experienced agronomists or consultants can significantly enhance project feasibility and success. Their expertise ensures that projects are tailored to farm-specific conditions and adhere to regulatory standards.

Grower beware

When looking at service providers, it is critical to verify that claims of GHG emissions reductions and carbon sequestration are well-founded, realistic, and sustainable over time. The most reliable and peer-reviewed information typically comes from state agencies, reputable industry organisations, or universities.

For example, it is well understood amongst the scientific community that the success of soil carbon sequestration and storage is dependent on many variables such as temperature and annual rainfall, soil moisture, soil texture and farm management practices. The verification step is critical, as unrealistic claims—such as exaggerated estimates of soil carbon sequestration, promised unrealistic minimum returns on investment or guaranteed returns from the government —are not uncommon.

Decision point

At this point, enough information has likely been gathered to decide on the suitability of a method and whether to investigate the feasibility of a carbon project. Figure 3 summarises the possible decisions that can be made at this step.

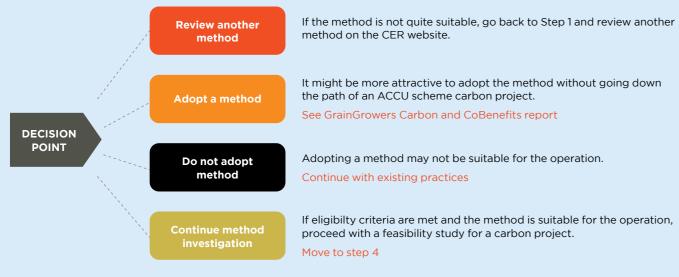
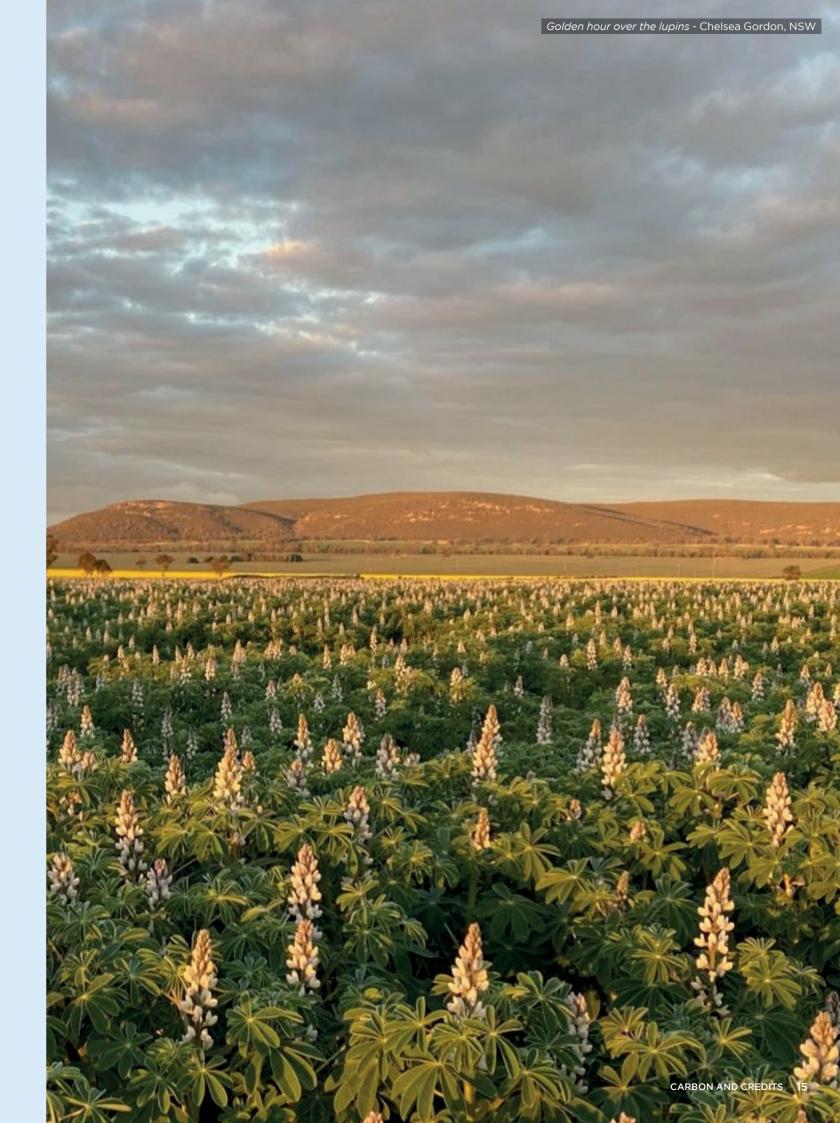


Figure 3. Decision pathways



4. Establish the feasibility of the carbon project

A feasibility study for a carbon project should be tailored specifically to the individual and should determine whether such a project and method is suitable for them. Each feasibility study will be unique to each property and grower. The following areas need to be considered and evaluated so that a sound assessment of project feasibility can be established.

Identify the financial costs and benefit

When investigating the feasibility of the project, understanding the magnitude of both the start-up and ongoing costs is critical. Here's a breakdown of potential costs to consider:

Start-up costs

1. Legal and financial advice

Legal advice will be needed to ensure compliance with regulations, and financial advice to assess the viability and potential profitability.

2. Project management fees

Hiring a project manager or consulting firm to oversee the project from planning through implementation.

3. Infrastructure development

Costs of purchasing or renting machinery and equipment and building or setting up any necessary infrastructure (like greenhouses or irrigation systems).

4. Initial training

Costs associated with educating the workforce on best practices, safety standards, and proper use of equipment.

Ongoing costs (Over project lifetime)

1. Labour costs

Depending on the project's scale, the cost of hiring workers to maintain the project, handle machinery, and perform regular activities.

2. Maintenance of machinery and infrastructure

The costs to maintain and repair any machinery or infrastructure over the lifetime of the project.

3. Material and resource costs

For planting projects, these include seeds, fertilisers, water, and protective measures like fencing.

4. Monitoring and evaluation

Ongoing monitoring of project performance to ensure objectives are being met. You may also need to pay for consultants or auditors.

5. Compliance and reporting

Maintaining compliance with environmental and financial regulations can add costs over time, especially if regular reporting to authorities is required.

Year-to-year variability

The first year of implementation is generally the most expensive, as it includes setup costs. In subsequent years, expenses often decrease but can fluctuate based on:

- Maintenance and repairs.
- Changes in the cost of resources (fuel, water, materials).

By accounting for these costs upfront, you can better manage the financial aspects of your project and plan for its sustainability.

Finance

The project proponent must decide whether the project can be self-financed or if a third party is required who may request Australian Carbon Credit Units (ACCUs) as repayment. The magnitude of up-front costs will depend on the carbon project method. Identify sources of funding early and secure them in advance if possible.

Opportunity cost

When undertaking a carbon project, the opportunity cost is the value of the alternative uses of the land that you give up by deciding to implement the project. This cost includes various economic, ecological, and cultural considerations that should be factored into establishing feasibility.



Here are the key aspects and potential risks to consider

1. Economic considerations:

Alternative land uses

The opportunity cost could involve forgone income from alternative uses, such as:

- Agriculture: Choosing a carbon project may mean losing revenue from crops or livestock, which might have provided a more immediate return.
- **Development:** The land might have higher economic value if used for commercial or residential development, especially in areas close to growing cities or regions with valuable natural resources.

Forestry or timber harvesting

If the land could have been used for timber production, engaging in a carbon project might mean forgoing income from timber sales or wood products.

Tourism and recreation

Land that could be used for ecotourism, recreational activities, or nature reserves might have higher value if leveraged in other ways than solely for carbon sequestration.

2. Ecological considerations:

Biodiversity loss

By dedicating land to a carbon project, you might reduce the opportunity to use it for activities that promote biodiversity, such as native habitat restoration or conservation. If the carbon project involves monoculture planting, for example, it could impact the natural balance of ecosystems.

• Land degradation risks

Improperly managed carbon projects can lead to soil degradation, water depletion, or invasive species introduction, which could diminish the land's future ecological value.

3. Cultural considerations:

• Impact on Aboriginal and Torres Strait Islander communities or local communities

If the land has cultural significance or is traditionally used by indigenous peoples,
repurposing it for a carbon project could affect their cultural practices or livelihoods.

For example, it may limit their access to traditional hunting or gathering areas.

• Heritage preservation

Changing land use for carbon sequestration may alter landscapes that hold historical or cultural importance, thus affecting heritage conservation efforts.

Potential risks

Market volatility

Carbon credit prices fluctuate based on market demand, regulatory changes, and global carbon reduction goals. This could mean unpredictable returns on investment, making it riskier than other land use alternatives.

Long-term commitment

Many carbon projects require long-term land commitments (e.g., 20-50 years), which limits future flexibility. Changing needs, economic conditions, or climate impacts could mean the land would be more valuable for a different purpose later on.

Legal and property risk

Legal obstacles caused by not having agreements in place with all parties when land tenure, land ownership and native title co-exist. The long-term maintenance obligation of some projects can affect future transfer of land.

• Environmental change

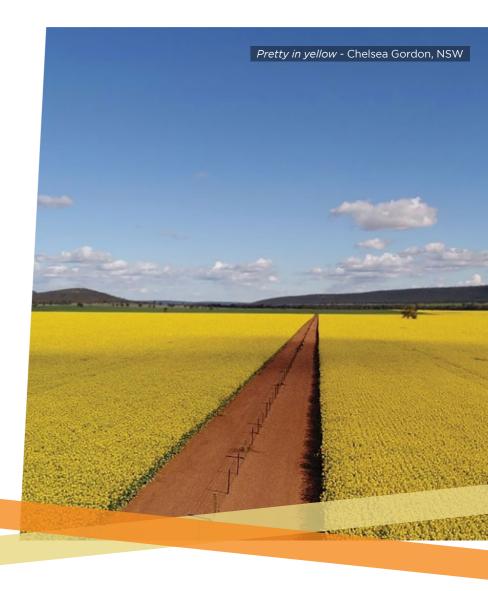
Changing climate conditions could undermine the success of carbon sequestration efforts. For instance, droughts, fires, or other natural disasters could destroy planted forests, reducing carbon sequestration potential and causing financial losses.

Key considerations

To fully account for opportunity costs and potential risks, it's important to:

- Evaluate alternative land uses and their potential economic returns.
- Consider the long-term environmental and cultural impacts of dedicating land to a carbon project.
- Weigh the financial risks and benefits over the entire project's timeline.

Careful analysis of these factors will help make an informed decision about whether a carbon project is the best use of the land in question.



5. Obtain stakeholder consent

If the project is deemed viable, the project proponent must secure consent from every eligible interestholder and submit signed consent forms from each.

This step ensures that all stakeholders are informed of the project, along with any potential risks or benefits. It is essential that eligible interest-holders fully understand the agreement, as their consent becomes irrevocable once the project is registered.

An eligible interest-holder is anyone with a legal interest in the land where the project will occur.

These may include:

- Landholders.
- Banks or mortgagees.
- State and territory Crown Lands Ministers.
- Registered native title bodies corporate.



6. Design and plan the carbon project

Project plan

A detailed plan must be developed outlining how the project will be implemented according to the chosen methodology. The specific requirements for the plan will vary according to the method and is detailed on the CER website. The project plan may require land management plans and permanence plans.

Fit and proper person assessment

Scheme participants must pass security and other checks to be assessed by the CER as a 'fit and proper person' (FPP). The FPP assessment includes checking for criminal convictions, whether the scheme participant is solvent, and whether they have the necessary competence to fulfil their role in the ACCU Scheme. FPP status is further assessed at each crediting application. The FPP declaration must be completed to qualify for opening an Australian National Registry of Emissions Units (ANREU) account.

Set up an Australian National Registry of Emissions Units (ANREU) account

In order to obtain ACCUs earned from the project, an Australian National Registry of Emissions Units (ANREU) account must be established. ACCUs can only be issued to an existing ANREU registry account.

Finalisation of agreements

At this point, any commercial agreements that may be needed to implement the project will require attention. Seeking independent legal and financial advice is critical before signing any agreements. If carbon service providers are involved, service agreements should be signed, especially if the project proponent is not managing the project independently.

Any agreements, including carbon abatement agreements, for committing ACCUs should be finalised at this step.

What happens to ACCUs if a natural disaster strikes?

The submission of a permanence plan is required alongside the project registration. If a natural disaster, like a bushfire, impacts the project, some or all the trees and the carbon stored in them will be lost. In such cases, the CER must be notified within 60 days and evidence must be provided for:

- Adherence to the permanence plan.
- Preventive measures were taken (e.g., firebreaks, weeding).
- Mitigation actions were implemented after the disaster to reduce its impact (e.g., replanting or setting seeding rows).

By doing this, ACCUs already earned may be retained, though the project might produce fewer ACCUs than originally expected.

7. Register the project with the Clean **Energy Regulator (CER)**

To register a project with the CER, the project proponent must create a CER Client Portal account and submit the Client Information and Application to Register a Project forms.

The Client Information form requires details about the project proponent(s), including identification documents and Australian Federal Police checks. Additionally, the form includes a 'Fit and Proper Person' (FPP) declaration, which ensures that the project owner has the necessary capacity, means, character, and skills to successfully complete the carbon project.

The Application to Register a Project form gathers essential information about the project participants and other key details, including:

Project details

Includes the project name, description, method type, start date, crediting period, total Full Abatement Estimate (FAE), projected average annual abatement, proposed activities, location and maps, whether it's an individual or aggregated project, and the skills required to manage the project.

Eligibility requirements for each method

Covers newness and additionality criteria.

Legal rights

If the proponent does not have exclusive tenure of the land, proof of legal right to conduct the project and receive Australian Carbon Credit Units (ACCUs) must be provided. This may involve presenting agreements, permits, and consent from all eligible interest holders.

Project permanence plan for carbon sequestration projects

For example, in environmental planting projects, this plan outlines activities that will be undertaken to maintain carbon storage throughout the permanence period, such as maintaining fences, restricting livestock, or creating fire breaks.

The Clean Energy Regulator (CER) will review and provide a decision on the project within 90 days of submission. Once approved, the CER will notify you of the outcome, and your project will be listed on the online ACCU project register.

Several factors may cause delays in processing times, including:

- The quality and detail of the information provided in the application.
- The complexity and newness of the method being used in the project.
- The current assessment workloads of the CER.

8. Implement the project

It's the beginning of a commitment

When the project is approved by the CER, it is time to put the project into action. This means following the specific steps outlined in the chosen methodology and detailed in the land management plan as part of the project registration.

Baseline data

A carbon baseline must be established to determine how much carbon is already present in the project area. This is the starting point for measuring carbon sequestration or emissions reductions. Any additional carbon that is captured or avoided beyond the baseline is eligible for credits.

Auditing

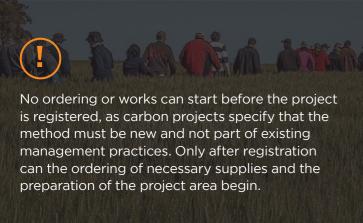
The project must be audited to align with legislative requirements. The number of audits required over the crediting period will depend on the project size and the forward abatement estimate. For most projects, at least 3 audits are scheduled during the crediting period.

The CER will provide an audit schedule when the project is registered. It will identify:

- The level of assurance.
- Frequency of audits.
- Scope of audits.

All audits need to establish reasonable assurance that the abatement achieved and reported on by a project is accurate. The CER adopt a risk-based approach to audits to streamline audit requirements while upholding the integrity of ACCUs.

Where a project report must include a reasonable assurance audit, the CER will not issue ACCUs unless the audit is provided with the project report.







9. Report the result

Regular reporting is required for most carbon project methods, typically every five years, and reports must be submitted to the CER. These reports provide details about the project's activities and measured outcomes, demonstrating how much carbon has been sequestered or how many emissions have been avoided compared to the baseline. The key aspects are outlined below:

Reporting requirements

- The reports must show the amount of carbon sequestered or emissions avoided compared to baseline data.
- The CER reviews these reports and may conduct site visits to ensure the project is meeting its objectives.
- Project proponents can choose reporting intervals ranging from 6 months to 5 years, but must report at least:
 - Every 2 years for emissions avoidance projects.
 - Every 5 years for sequestration projects.

Reporting flexibility

- Reporting can occur as frequently as every 6 months or as infrequently as every 5 years, depending on the operational needs of the project (see example project timelines on pages 11 & 12).
- More frequent reporting allows for quicker access to carbon credits, while less frequent reporting helps to reduce costs.

Baseline soil sampling

 Baseline soil sampling must be conducted within the first reporting period or within
 18 months of adding land to an existing project area.

Method-specific reporting

- Each project method specifies its own reporting and record-keeping requirements, including instructions on how to calculate abatement.
- It is important for the project proponent to understand the specific requirements for their method to comply with CER's reporting standards.

Documents required

- An eligible offsets report covering the reporting period.
- A signed application for ACCUs (Australian Carbon Credit Units).
- An audit report, if required by the audit schedule.
- Supporting documentation specific to the project method (e.g., a SavBAT report for savanna burning methods).

Mapping requirements

 For projects under area-based methods, geospatial data must be supplied as part of the submission.

By following the method-specific instructions, project proponents can ensure compliance and efficient processing of their reports.

Late reporting

Project reports must be submitted on time, regardless of whether the project proponent is applying for ACCUs simultaneously. If a project proponent is unable to meet the reporting deadline, they must notify the CER at least 3 months in advance of the due date.

Late reporting is considered a serious legal violation. Failure to submit a report by the deadline may result in the project proponent failing the fit and proper person test, which could lead to project revocation and the loss of the right to be issued ACCUs. Additionally, late or missed reporting exposes the proponent to the risk of a civil penalty order. The authority may take enforcement action in cases of late reporting or failure to report. Further details on the compliance approach can be found through the regulator.

If the project has unmet conditions, such as pending eligible interest holder consents or regulatory approvals, ACCUs will not be issued.



10. Issue of ACCUs

Following a successful period of emissions reduction, the project becomes eligible for carbon credits. The project proponent can apply for Australian Carbon Credit Units (ACCUs) via the CER Client Portal. The application must include:

- An offsets report for the reporting period.
- A signed application for carbon credits.
- An audit report, if required by the audit schedule.
- Relevant information related to the project method, such as data from calculation tools/ models and maps.

The Clean Energy Regulator (CER) will take up to 90 days to review the application and may request further information if necessary. Once the CER is satisfied with the provided information, the project proponent will receive a certificate of entitlement, confirming the number of ACCUs to be issued to the proponent's Australian National Registry of Emissions Units (ANREU) account.

WHAT TO DO WITH AUSTRALIAN CARBON CREDIT UNITS (ACCUS)

TO SELL OR TO INSET?

Selling

ACCUs are traceable, tradable and finite: when they are purchased, they are retired forever.

Credits can be sold at any time after they have been issued. The timing depends on factors set by the grower, such as their confidence in the stability of the sequestered carbon, current prices of ACCUs, and market requirements.

The production and sale of carbon credits should be managed in an equivalent way to how crop production and sales are managed. There are on-farm production costs and fixed costs to consider when determining the sale value of a carbon credit together with market considerations.

Participants can sell ACCUs to the Australian Government or on the carbon market. This gives a financial incentive for businesses and individuals to run ACCU Scheme projects.

Selling to the Australian Government

ACCU Scheme participants can sell ACCUs from their project to the Australian Government through a carbon abatement contract. The Australian Government purchases ACCUs as part of its commitment to decarbonise Australia's economy through carbon abatement projects.

Under a carbon abatement contract, participants agree to deliver ACCUs to the Australian Government and the Australian Government agrees to buy their ACCUs at a fixed price.

ACCUs as a financial product

ACCUs are registered in the proponent's Australian National Registry of Emissions Units (ANREU) account, similar to a share trading account. An ACCU can only be issued to a person who has an ANREU account, and an account can only be opened by a person after the Regulator has considered whether they are a 'fit and proper person'. Legally, an ACCU is a 'financial product' under both the Corporations Act 2001 and the Australian Securities and Investments Commission Act 2001. This means anyone providing future price movement guides or financial services in relation to ACCUs and related financial products and services in Australia may require an Australian Financial Services License (AFSL) which authorises them to provide those services.

As with any commodity it would be considered good business to establish a marketing plan before selling credits, considering the risks and the objectives of the grower.

Detailed information about the tax treatment of ACCUs can be found on the Australian Taxation Office's website. Growers should seek their own professional advice regarding the tax implications of ACCUs, considering their specific circumstances.

The CER offers general advice related to ACCU taxation which you will find on their website.

Trading ACCUs on the carbon market

Carbon trading involves selling carbon credits that come from recognised projects.

The carbon market includes businesses with emissions reduction obligations, voluntary participants, and brokers who facilitate trades. These participants buy and sell ACCUs to meet their goals.

The market for buying and selling carbon credits is still relatively new and has a limited number of participants.

Brokers

Brokers function similarly to stockbrokers, facilitating the trade of carbon credits between two parties. It is important to note that trading of ACCUs can only occur between parties that have accounts in the Australian National Registry of Emissions Units (ANREU), and all transactions must be physically settled.

Banks

Major banks, including Commonwealth Bank of Australia (CBA), National Australia Bank (NAB), and Rabobank, play a role in this market by bundling credits from growers to create larger ACCU parcels, which they then match to customer demand.

The banks buy the credits from growers at a negotiated price and sell them to buyers needing specific types and quantities of carbon credits.

Digital

There are digital platforms available that allow growers to check the current spot market prices for both Australian ACCUs and international carbon credits. These platforms help growers understand the value of their credits on any given day, monitor market trends, and inform their decision-making. The prices provided represent the value per one tonne of carbon dioxide equivalent (1tCO₂e).

Be alert

Not all carbon credits are the same. The value of a carbon credit in the marketplace is influenced by the methodology used in the underlying project and any additional benefits that the project may provide.

Who is Buying?

Before selling ACCUs, it is wise to consider who is buying the credits and how they intend to be used. As buyers of carbon credits are becoming more selective, wary of greenwashing, and valuing credits produced with integrity, sellers can similarly evaluate the Environmental, Social, and Governance (ESG) standards of potential buyers.

Growers should reflect on whether they want to support a particular business in offsetting their emissions, whether they prefer to sell domestically to local companies, and if the buyer's objectives align with their own values. If there are discrepancies, growers might look for buyers who better match their ethical standards and expectations or future market risk.

This careful selection process might also enable growers to command a price premium based on the specific stipulations they place on their credits.

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Risk

Selling ACCUs, much like selling grain, involves inherent risks. How these are evaluated depends on the proponent's appetite for risk. However, there are several common risks to consider before selling an ACCU.credits from external projects.

Financial risk

The price of carbon can be volatile. Growers need to decide whether they can hold onto their ACCUs until they reach a price that meets their expectations or requirements. Alternatively, they may need to sell sooner due to cash flow needs, which might mean accepting a market price that does not meet their expectations.

Environmental risk

Natural vegetation systems are complex and unpredictable in their response to environmental and management factors. A carbon project's potential to produce ACCUs can be affected by drought, floods, fires, plant establishment, and the impact of grazing from both domestic and feral animals.

Permanence and replacement risk

Generating ACCUs through a registered carbon project involves a commitment to maintain sequestered carbon for either 25 or 100 years.

- If carbon stored in vegetation or soil is released back into the atmosphere, it can reverse the environmental benefits of the project, potentially requiring the replacement of any ACCUs
- This could lead to significant liabilities if the ACCUs have already been sold or retired.
- A permanence plan, required by the CER, must detail how the stored carbon will be protected throughout the selected permanence period.
- Landholders with registered sequestration projects who are selling their property must inform potential buyers of any permanence obligations, which could affect land values and interest from prospective buyers.

Insetting

Keeping carbon on the books

Insetting is when earned ACCUs are used to offset emissions within an operation. It can help make a farm more sustainable by balancing out the generated emissions. For example, a grain growing operation might use nitrification inhibitors with nitrogen fertilisers to reduce the GHG emissions created by the nitrogen fertiliser application. The reduction achieved by this new practice is then used to offset emissions from the diesel fuel used to spread the fertiliser. Insetting can also mean creating carbon sinks, like forests, directly on the operation's own land rather than buying carbon credits from external projects.

Cost savings:

By using ACCUs for insetting, growers reduce costs associated with purchasing external carbon credits for compliance or offsetting purposes.

Operational resilience:

Insetting enhances operational resilience by mitigating risks associated with carbon pricing and regulatory changes. It promotes long-term sustainability and profitability.minimise emissions

Environmental stewardship:

Beyond financial incentives, insetting promotes environmental stewardship by reducing on-farm emissions and enhancing overall sustainability.



Insetting can carry certain risks from both a market and consumer standpoint. There is a potential for double counting of reductions, and it may not always have the external verification that carbon credits require. Without robust accounting practices, third-party verification, and transparency, an enterprise could be vulnerable to perceptions of greenwashing, that is where claims of low carbon or carbon neutrality might be seen as inaccurate or misleading.

However, by integrating carbon accounting into annual financial reporting and obtaining third-party verification of greenhouse gas (GHG) inventories, the enterprise can strengthen its credibility and reduce the risk of greenwashing claims.

Relinquishing ACCUs

Participants in the ACCU Scheme may be required to relinquish ACCUs under certain circumstances, including when the units were issued:

- Based on false or misleading information.
- For a sequestration offsets project that has had its registration revoked.
- For a sequestration offsets project that has experienced a complete or partial reversal of sequestration.

A participant may also choose to voluntarily relinquish ACCUs to:

- Terminate a sequestration offsets project.
- Terminate a carbon maintenance obligation imposed on a project area.

Additionally, a court may order the relinquishment of ACCUs if they were issued in cases involving fraud.

The number of ACCUs that must be relinquished can be deducted from any future ACCUs issued to the participant. In these cases, the participant will be considered to have relinquished the relevant number of ACCUs.



CASE STUDY: NORTH STIRLING DOWNS, WESTERN AUSTRALIA

North Stirling Downs is a family-owned company overseen by managing director Wayne Pech and involves four family members. The main property is situated south of Gnowangerup and includes additional land in the Shires of Broomehill Tambellup and Cranbrook in the Great Southern region of Western Australia.

The business operates over 13,000 hectares, with 55 per cent dedicated to wheat, barley, canola, beans, and lupins, and 35 per cent used for grazing by a self-replacing Merino flock. The remaining 10 per cent of the land features remnant vegetation and tree plantations, with 200 hectares of the plantations registered as a biodiverse carbon project. Carbon farming and trading currently represent less than two per cent of the business's activities.

Wayne discussed his strategies and insights on the sale of ACCUs and ACCU trading with the author, following the establishment of North Stirling Downs' carbon project and the issuance of credits.



Have you sought advice and where from?

"I have sought information from various people I have met at carbon farming seminars, through my association with AgZero2030 and from the people who helped me set up my project." Wayne said. "Do your research to ensure you are working with knowledgeable, reliable and trustworthy people and businesses."

The challenge Wayne found was dissecting the information and deciding on what best suited the operation at North Stirling Downs. Doing this helped him formulate the strategy.

How have you approached the carbon projects and the issuance of credits?

"Currently we have decided as a business that our strategy is to bank any credits that are issued to us for two reasons; firstly, because we believe that we may be required to offset our own emissions in the future to meet market access requirements and secondly because we consider the current ACCU price is low compared to the cost of production for an ACCU and the associated risk." Wayne said. "That has been my strategy the entire time and will not change."

When asked about forward selling a portion of ACCUs Wayne added that if the credits were not required by the business for reducing their own emission, then any sales programme would be driven by the ACCU price. This focus has meant that to date, no ACCUs have been sold from the North Stirling Downs ANREU account.

What are your key learnings from the process following issuance?

"Undertaking a project (in any enterprise) is the best form of learning. Our carbon project is a tree vegetation project which we established using a 50:50 share farm agreement with our business supplying the land and an investor supplying the working capital. For any new projects I will take control of the entire project and employ a project manager on a fee for service basis to assist with the administration. Sourcing the finance prior to establishing a carbon project to keep the project within the business is definitely a key learning and to rectify our position we are in the process of buying back the other 50 per cent share." Wayne said.

What advice would you give a grower that is coming up to their first ACCU issuance?

"Take full control of your enterprise; do your research to decide what best suits your operation and have a clear strategy for managing and disposing (or selling) your ACCUs following issuance whether that is holding on to them for your own use or establishing what is a good sale price for your ACCUs. Lastly, ensure you're working with people you trust and avoid setting up a project where the project manager is paid in ACCUs."

Having been asked to provide his experiences at numerous farmer producer groups, field days and conferences, Wayne's final comment was, "People don't want to hear your opinion, they want to hear their opinion coming out of your mouth.", referring to his advice about doing your own research and that people are quick to get personal in their criticism without listening to differing researched points of view.

CONCLUSION Navigating the path to earning Australian Carbon Credit Units is a multifaceted process, blending environmental stewardship with strategic business decisions. It requires a solid understanding of the methods, the regulatory framework, and the methodology demands specific to the operation. While the financial and environmental benefits can be positive, it is essential to approach the process with realistic expectations. The initial investment of time, resources, and effort can be substantial. and the outcomes depend on climate, soil type and management practices. Equally, the potential for income diversification, improved soil health, and contributions to Australia's climate goals can make it a compelling opportunity. Growers who succeed in integrating ACCU projects into their operations often cite the value of building expertise in carbon markets, leveraging professional advice, and staying informed about evolving government policies and market trends. Earning ACCUs is not a one-size-fits-all solution, but for some grain growers, it can represent a way to enhance the longterm sustainability of their enterprise. With careful planning, collaboration, and perseverance, grain growing businesses can play a pivotal role in Australia's lowcarbon future whilst turning efforts into lasting rewards.

GLOSSARY OF KEY TERMS

Listed in alphabetical order, the key terms used in this report are defined below.

Australian Carbon Credit Unit (ACCU)

An ACCU is a type of carbon credit issued by the Australian Government through the Clean Energy Regulator (CER). One ACCU represents the avoidance and storage of one tonne of carbon dioxide equivalent (tCO₂e) through eligible carbon projects as part of the ACCU Scheme.

ACCU certificates

An Australian Carbon Credit Unit (ACCU) certificate is an official document issued by the Australian government. It represents proof that one tonne of carbon dioxide equivalent (tCO₂e) has been either stored or avoided from the atmosphere through approved activities.

ACCU certificates can be traded in auctions, contributing to Australia's efforts to meet its climate targets. The CER oversees the process of ACCU issuance, auction participation, and the compliance of projects.

ACCU project (sometimes described as a 'carbon project')

An ACCU project avoids greenhouse gas (GHG) emissions into the atmosphere or sequesters CO₂ and stores it as carbon. For each tonne of carbon dioxide equivalent (tCO2e) that a project can avoid or store, the project earns one carbon credit. Projects must follow methods approved by the Australian Government. These projects also need to be verified by an independent third party. Most of the project methods relevant to grain growers focus on avoiding GHG emissions.

ACCU Scheme

The ACCU Scheme is the system through which ACCU projects are registered and carbon credits are issued.

Agroforestry

Agroforestry is the practice of growing trees along with crops on the same piece of land. This approach helps produce both tree and crop products while also protecting and maintaining important resources like the environment and natural habitats. Unlike traditional farming or forestry, which focus only on one type of plant, agroforestry looks at how trees and crops can work together.

Australian National Registry of Emissions Units (ANREU) Account

ANREU supports the issuance, holding, transfer, and acquisition of Australian Carbon Credit Units (ACCUs). Organisations or individuals that wish to hold ACCUs must have an ANREU account.

Baseline

A baseline is a fixed point of reference that is used for comparison purposes. The baseline represents the "business-as-usual" scenario, which is what the net GHG emissions are without any intervention. A baseline GHG number is needed to calculate the amount of GHG emissions reduced or stored through the implementation of GHG emission reduction or carbon storage practices.

Biochar

Biochar is a lightweight type of charcoal composed of carbon and ash. It is produced through high temperature chemical conversion of biomass. Biomass is any material from a biological source e.g. crop residues, non-commercial wood and wood waste.

Carbon

Carbon (chemical symbol C) is a chemical element, like hydrogen, oxygen, nitrogen. Or iron. Carbon is a very abundant element. It exists in pure or nearly pure forms but can also combine with other elements to form molecules. It can exist in solid, liquid or gaseous forms. These carbonbased molecules are the basic building blocks of humans, animals, plants, trees and soils.

Carbon abatement contract

A carbon abatement contract is an agreement between a project proponent and the Australian Government. It specifies the terms for purchasing ACCUs generated by the carbon project. These contracts provide financial certainty for project proponents, ensuring revenue for successful GHG emission avoidance or carbon storage projects.

Carbon aggregator

Carbon aggregators are intermediaries who bundle together smaller carbon offset projects into larger, more marketable units. Their role is to help small-scale projects, like farms or community-based emissions reduction efforts, participate in carbon markets. Aggregators manage the technical, legal, and logistical complexities of verifying and selling the carbon credits generated by these smaller projects.

Carbon footprint

A carbon footprint is the total GHG emissions caused directly and indirectly by an individual, organisation, event or product. Its calculation considers all other GHGs like methane (CH₄) and nitrous oxide (N₂O) in addition to carbon dioxide. The word carbon in carbon footprint is used as a shorthand word to mean all GHGs.

Carbon offset

Using carbon offsets is a way to compensate for generating GHG emissions. Buying ACCUs helps offset GHG emissions by supporting verified projects that reduce GHG emissions or store an equivalent amount of CO₂. This is a common practice for entities looking to mitigate their environmental impact and meet sustainability goals.

Carbon project

See ACCU project.

Carbon sequestration

While soil and vegetation can interact with various gases, carbon sequestration primarily refers to the process of capturing and storing carbon dioxide (CO_2) for at least 100 years. Plants absorb CO_2 from the atmosphere during photosynthesis and store it as carbon in their biomass (roots, stems, leaves) and in the soil when organic matter decomposes. Soil organic matter and vegetation, especially trees, can store carbon for long periods, making them crucial in mitigating climate change. While other gases like methane (CH_4) and nitrous oxide (N_2O) are involved in soil and vegetation processes, carbon dioxide (CO_2), is the main gas stored through the process of carbon sequestration.

Carbon source

A carbon source refers to any process or activity that releases a greenhouse gas, into the atmosphere.

Carbon sink

A carbon sink is any process, activity or mechanism which removes a greenhouse gas, from the atmosphere. The soil, vegetation or the ocean are carbon sinks.

Carbon traders

These individuals or organisations buy and sell carbon credits or carbon offsets in carbon markets. Their focus is on profit generation by speculating on the price of carbon credits - like how stock or commodity traders operate. They might trade directly with companies needing to meet emissions reduction targets or trade on carbon exchanges.

Carbon trading

Carbon trading is the buying and selling of carbon credits, such as ACCUs, to achieve emissions reduction targets or comply with regulatory requirements. Carbon trading provides a mechanism for businesses, governments, and individuals to manage their carbon emissions by purchasing credits from projects that reduce or offset emissions. In Australia, the carbon market is an established, legislated, and regulated market.

Clean Energy Regulator (CER)

The Clean Energy Regulator is an Australian government body responsible for administering legislation that reduces carbon emissions and increases the use of clean energy. The CER oversees programs like the Australian Carbon Credit Units (ACCU) scheme. The CER ensures that participants in these schemes comply with the rules and accurately report their emissions reductions. This process ensures the credibility of the carbon credits earned.

Climate change

Climate change refers to the long-term shift in global weather patterns primarily due to the rise in GHG emissions in the earth's atmosphere. Climate change is characterised by rising temperatures, rising sea levels, ocean acidification, more severe and more frequent droughts and extreme weather events. Ecosystems and human societies are all adversely affected.

Greenhouse gases (GHGs)

Greenhouse gases (GHGs) are atmospheric gases that trap the sun's heat leading to global warming and climate change. GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and some synthetic gases. The burning of fossil fuels – coal, oil and gas – is by far the largest contributor to global climate change, accounting for over 75 per cent of global GHG emissions and nearly 90 per cent of all CO_2 emissions. Enteric emissions from ruminants such as cattle and sheep are the main global source of CH_4 , whilst the production and inefficient use of fertiliser accounts for 75 per cent of N_2O emissions (see Figure 1).

Not all GHGs have the same impact or long-term effect, and each survives in the atmosphere for different amounts of time. The most significant of these for grain growers is N_2O which is 265 times more effective at trapping the sun's heat than CO_2 (see Figure 2).

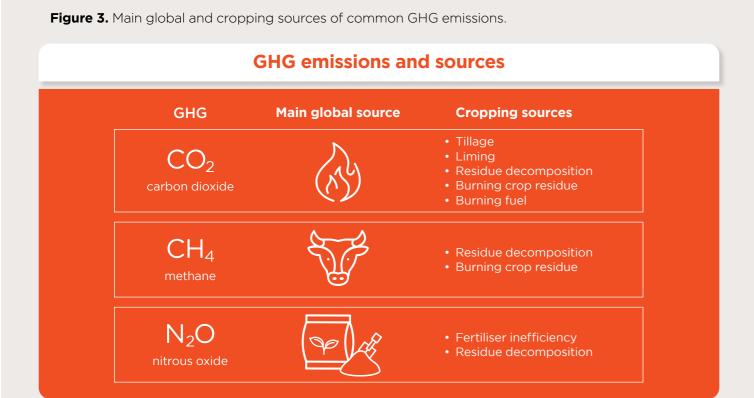
Offtake agreement

A contractual arrangement between an ACCU seller and buyer (often an aggregator or trader) to purchase a predetermined quantity of ACCUs generated by the carbon project. Offtake agreements provide sellers with a guaranteed market for their ACCUs, securing revenue and mitigating market risks associated with fluctuating carbon prices.

Project proponent

The entity or organisation with authority and responsibility for developing and implementing a carbon project to generate ACCUs. Project proponents undertake activities to reduce GHG emissions or enhance carbon sequestration. The project proponent is bound by a range of legal considerations. These legal considerations ensure that carbon projects are developed and operated in compliance with regulatory requirements, contractual obligations, and environmental standards.

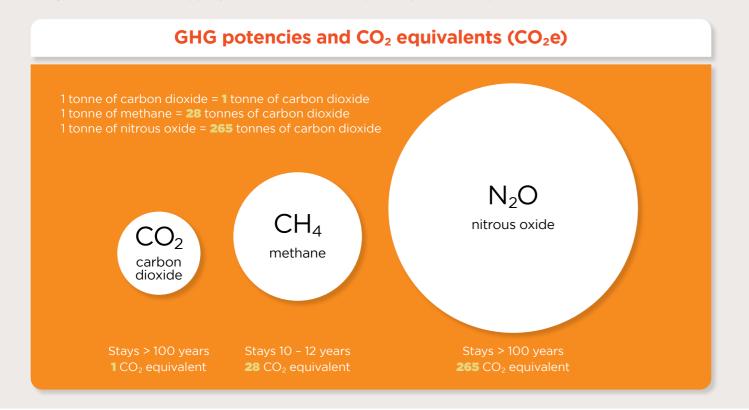




Source: Sevenster M., Bell L., Anderson B., Jamali H., Horan H., Simmons A., Cowie A., Hochman Z. (2022) Australian Grains

Figure 4. Common cropping GHG emissions, their potency and atmospheric lifetime.

Baseline and Mitigation Assessment. Main Report. CSIRO, Australia



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RESOURCES

For more carbon resources, related links and information about the certifications references in this document scan the QR code below, or visit graingrowers.com.au.







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