



Department of
Primary Industries and
Regional Development

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Growing Carbon on Farm Workshop and Webinar Series 2023- Women In Farming

**Andrew McCarthy – Business Development
Officer**

Topics for Today



Why are we talking about Carbon Farming?

What is Carbon Farming?

Is carbon farming right for your farm?

What carbon farming project method is available for your farm operations?

Resources to help.

Pre-workshop questionnaire



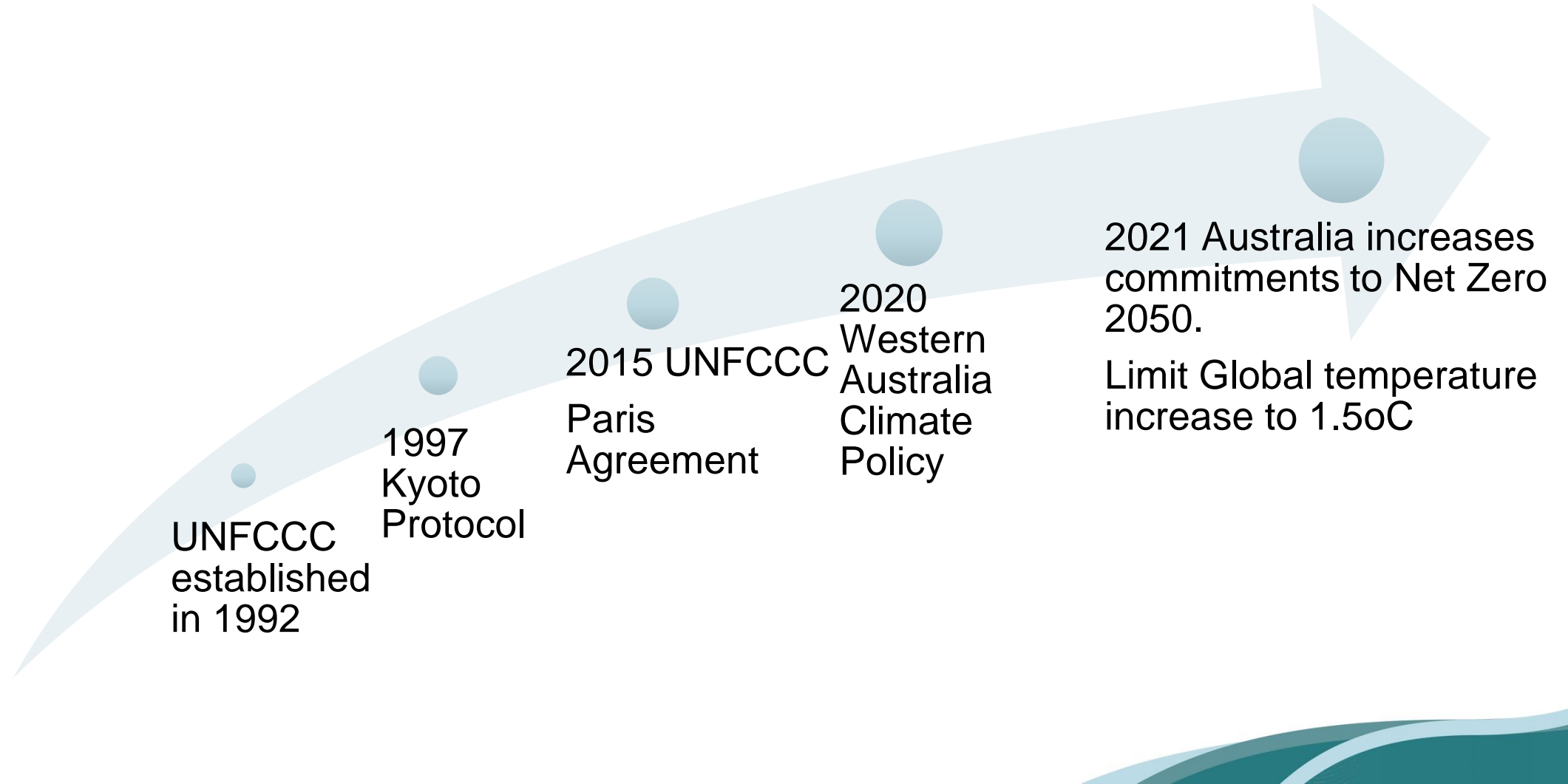


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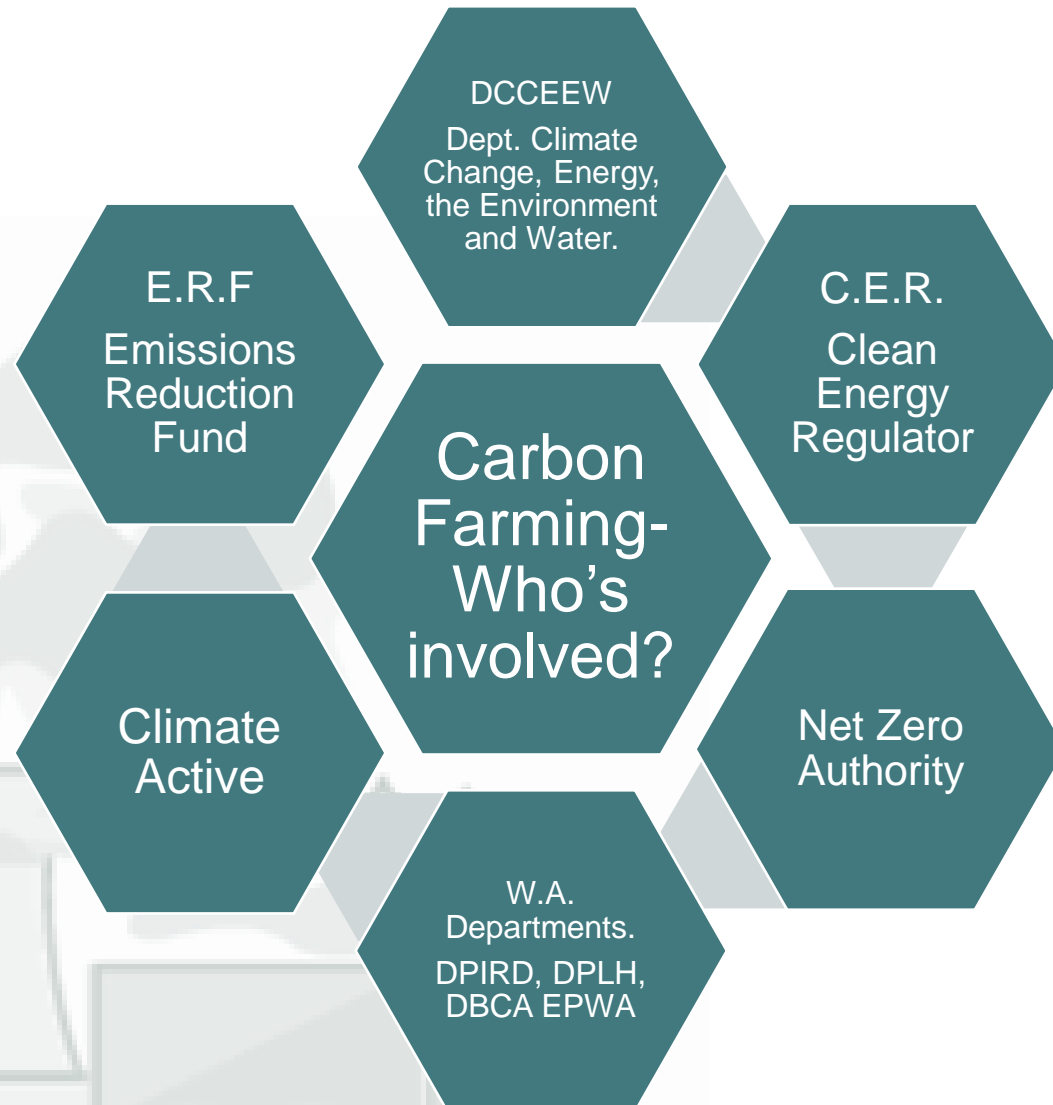
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Why are we talking about Carbon Farming?

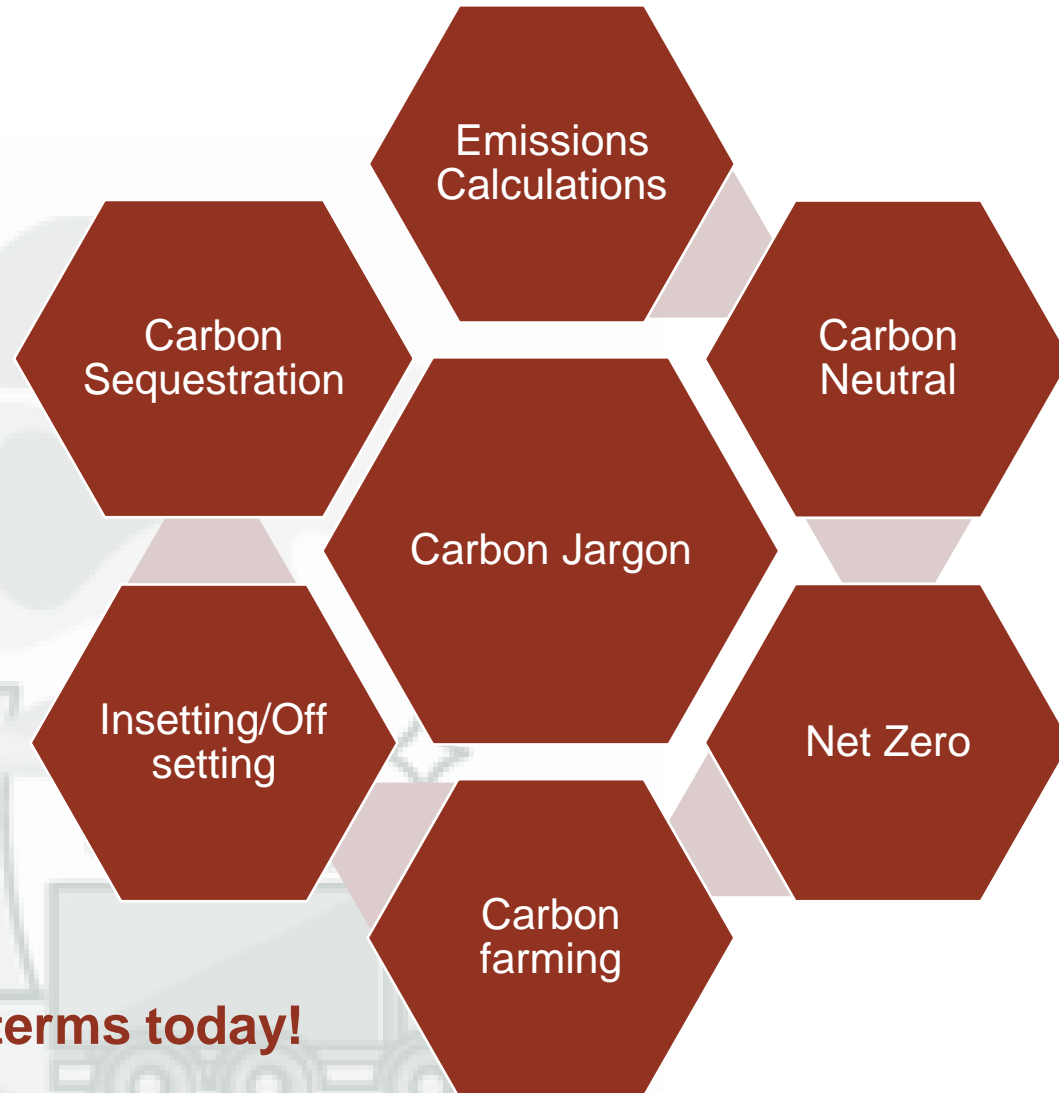
A quick history!



Who are the key players?

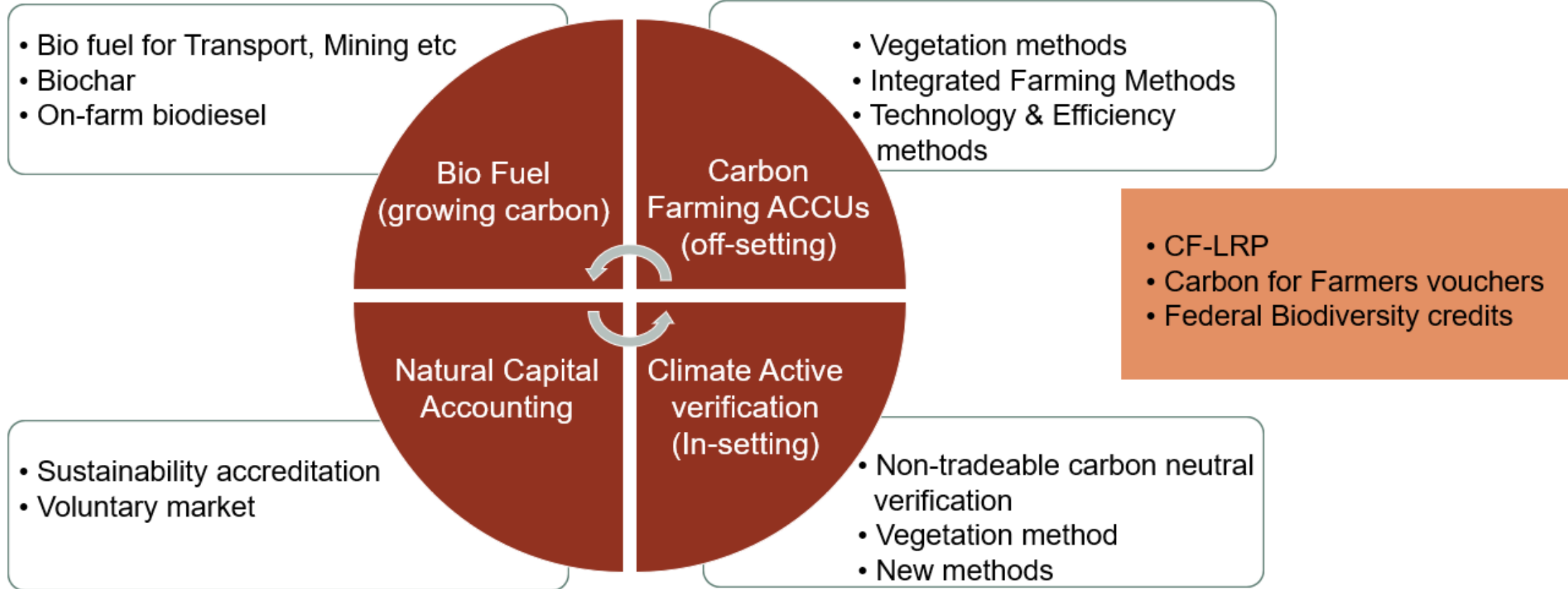


Carbon jargon - What's the difference?



Our aim is to explain these terms today!

Opportunities for producers



Farm Business Planning = emissions reduction + growing carbon + profitability



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What is Carbon Farming

What is Carbon Farming?

Carbon farming refers to the land-based activities that sequester (or store) carbon in vegetation and soil.



**Is carbon farming right for your
business?**

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Why Start a Carbon Farming Project?

It's **not just** about income from carbon credits

- Sequestering carbon in the farm system has agricultural productivity benefits and increases farm system resilience
- Sequestering carbon at the landscape scale has regional benefits for agricultural communities and increases community resilience
- Carbon credits and the co-benefits may future proof your business as markets become carbon constrained



Diversified Revenue
Carbon credits provide another income stream or offsets for your business



Farm Benefits
Improved soil health, reduced wind erosion, and improved yield and survival rates



Ecosystem Health
Helps regenerate degraded land, mitigate salinity and increase biodiversity



Understand your system
Manage your land more efficiently by measuring the natural resource constraints

**So, you've decided to do a
carbon farming project!**

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What carbon farming project method is the best for your farm operations?

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Eligibility requirements

Key requirements for all project types.

- **Newness**

- not to have begun to be implemented before it has been registered with the Clean Energy Regulator
- 

Eligibility requirements

Key requirements for all project types.

- **Additionality**

- Not required to be undertaken by any existing legal requirement


Eligibility requirements

Key requirements for all project types.

- **Legal right and a fit & proper person**

Eligibility requirements

Key requirements for all project types.

- **Eligible interest holder consent.**
 - **for example, mortgage holder(your bank) must consent to the project**
- 

Eligibility requirements

Key requirements for all project types.

- **Permanence Requirements**
 - **Projects must agree to a permanence period of 25 or 100 years.**
 - **Sequestration rates are discounted by a total of 25% and 5% for 25 and 100 projects, respectively.**
 - **Permeance timeline starts from first accounting report not the registration of the project.**

Eligibility requirements

Key requirements for all project types.

- **Newness**
 - not to have begun to be implemented before it has been registered with the Clean Energy Regulator
- **Additionality**
 - Not required to be undertaken by any existing legal requirement
- **Legal right and a fit & proper person**
- **Eligible interest holder consent.**
 - for example, mortgage holder(your bank) must consent to the project
- **Permanence Requirements**
 - Projects must agree to a permanence period of 25 or 100 years.
 - Sequestration rates are discounted by 25% and 5% for 25 and 100 projects, respectively.

Method specific eligibility criteria for your chosen method.

- **Current options for Landholders**
 - **Farms can sequester carbon in soil and/or vegetation.**
- 

Current options for Landholders

- ***Soil organic carbon sequestration using measurement and models*** method

Soil Carbon Projects

Method: Estimation of Soil Organic Carbon Sequestration using Measurement and Models.

Soil projects must introduce one or more eligible activities

Basic factsheet



Australian Government
Clean Energy Regulator



Factsheet: Soil carbon projects



Detailed guidance documents



Australian Government
Clean Energy Regulator

EMISSIONS
REDUCTION
FUND



Australian Government
Clean Energy Regulator

EMISSIONS
REDUCTION
FUND

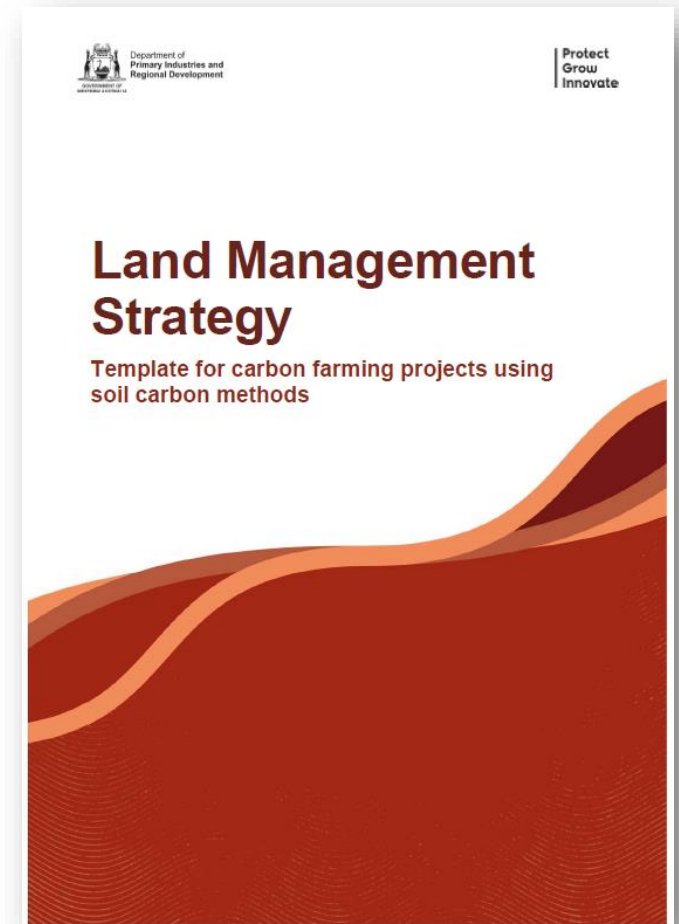
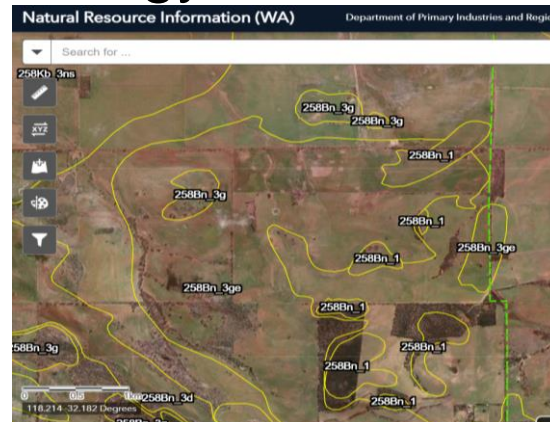
Guidance for meeting the requirements of soil carbon land management strategies for 2021 soil carbon projects

Understanding your soil carbon project

Emissions Reduction Fund simple method guide for soil carbon projects registered under the *Carbon Credits (Carbon Farming Initiative – Estimation of Soil Organic Carbon Sequestration using Measurement and Models) Methodology Determination 2021*

Soil Carbon – Land Management Strategy

- Required for registration with the Clean Energy Regulator (CER)
- Understand your soil's carbon – now and potential
- Which eligible activities will increase SOC, how much will it cost, what are the risks to the SOC and how will I maintain the SOC for the next 25 or 100 years?
- Identify the Carbon Estimation Areas (CEA)
- Account for your emissions from livestock, synthetic fertiliser application, lime application, residue and tillage events, and irrigation energy.



Current options for Landholders

- Agroforestry projects using the *New Plantation* or *Farm Forestry* methods

Vegetation (Agroforestry) Projects

Method: Reforestation by New Plantation Forestry method and Farm Forestry method

Project Activities:

- Establish a new plantation forest
- Demonstrate integration of plantings into the farming system
- Can be a harvesting system.

Eligibility:

- Area must be clear of plantation or native forest for at least **7 years** before you register a project
- New plantation forestry method requires a Forest Management Plan
- Obtain regulatory approvals (some Shires have limits on planting areas)
- Must not be managed under a forestry managed investment scheme

Permanence and Forest Management Plan:

- How you plan to maintain the carbon stocks and mitigate fire risk (risk of reversal)
- 25 or 100 years



Current options for Landholders

- Revegetation projects - ***Reforestation by environmental or mallee planting method***
- ***Environmental Planting Pilot.***

Vegetation (Revegetation) Projects

Method: Reforestation by Environmental or Mallee Plantings (FullCAM) method
Environmental Pilot Planting

Project Activities:

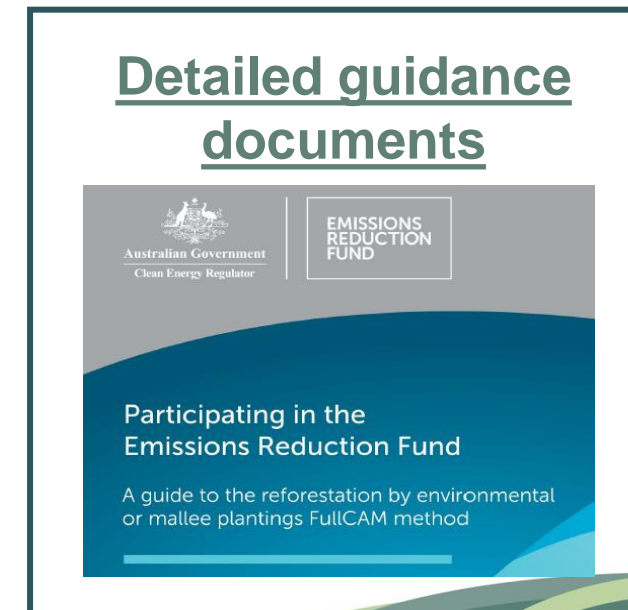
- Tube stock or direct seeding to create a permanent (non-harvest) forest using either locally native species mix or Eucalyptus mallees
- Linear belts or block plantings
- Mallees only in less than 600mm of rainfall

Eligibility:

- Area must be clear of forest for at least **5 years** before you register a project
- Obtain regulatory approvals (some Shires have limits on planting areas)

Permanence Plan:

- How you plan to maintain the carbon stocks and mitigate fire risk (risk of reversal)
- 25 or 100 years



Future options for Landholders

Early 2024.

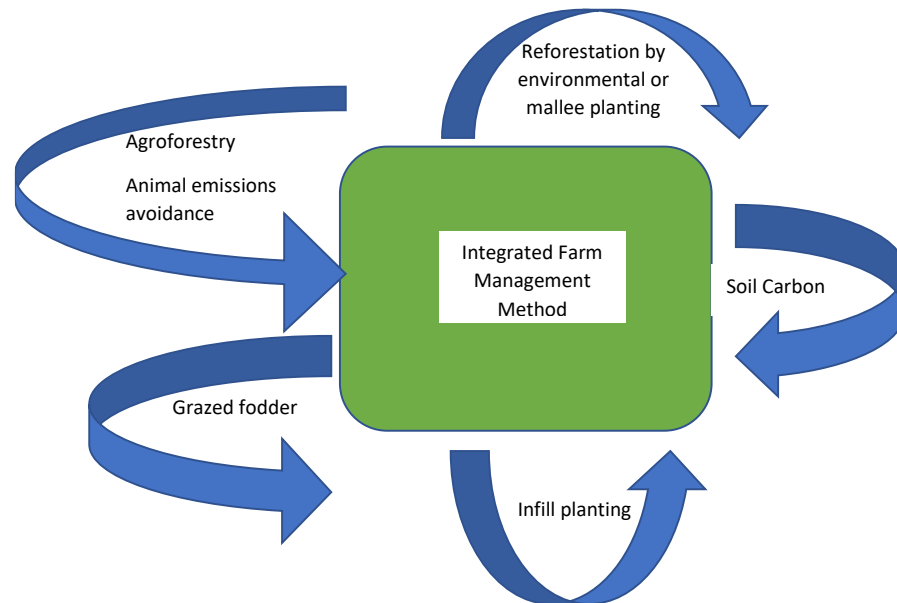
- Integrated Farm Management method – Stacked soil and/or vegetation projects including infill planting, planting/seeding grazed fodder and expanded soil carbon pools

Integrated Farm Management Method - 2024

“**Stacking**” of activities in the same project – vegetation, soil or both

New activities include:

- Any vegetation-based activity that improves soil carbon
- Planting and seeding to establish fodder plantings
- Infill planting using direct seeding or tube stock to assist regeneration



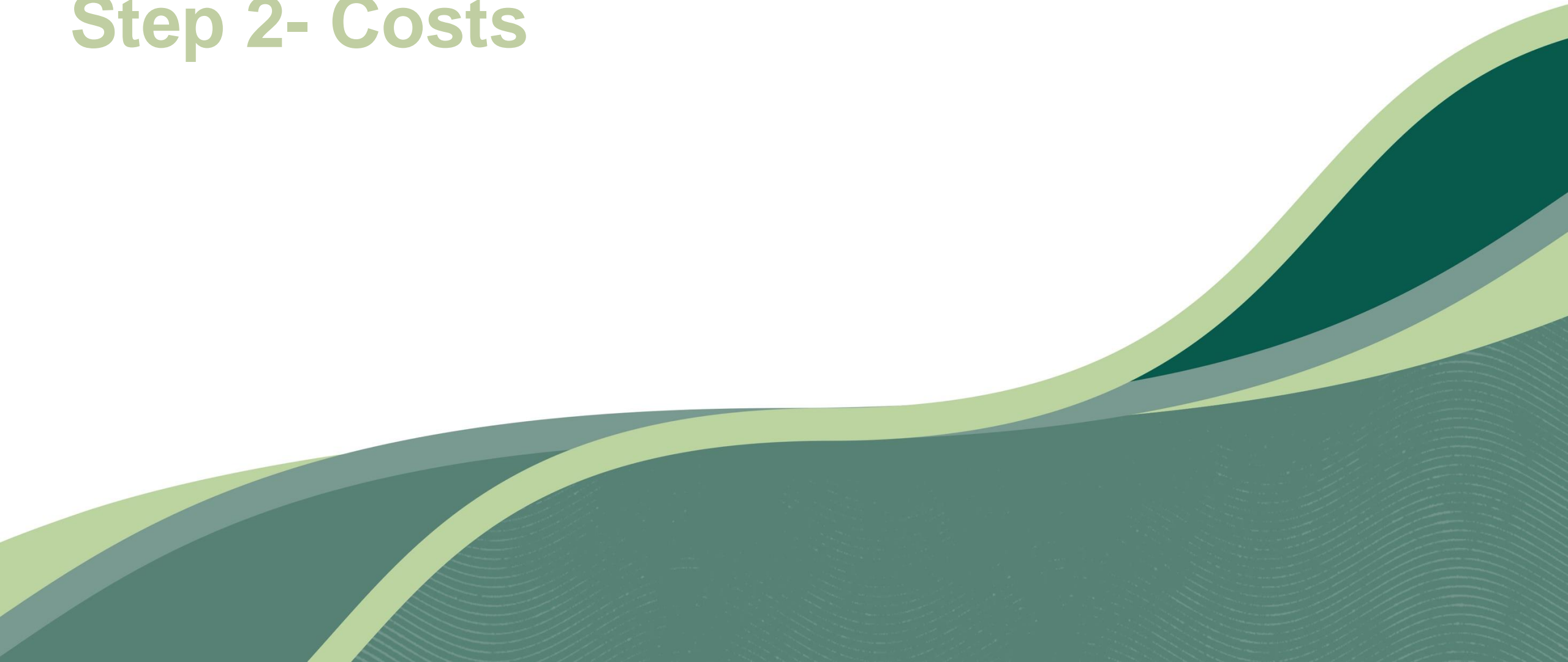
Estimating project carbon potential and ACCUs generated

Online tools are available to help landholders estimate the carbon sequestration potential of their project:



- FullCAM (the Full Carbon Accounting Model) - a calculation tool that can generate abatement estimates for ERF vegetation methods. Download FullCAM for free at <https://www.industry.gov.au/data-andpublications/full-carbon-accounting-model-fullcam>
- LOOC-C - a carbon abatement calculator that provides sequestration estimates to help landholders consider whether a project is viable based on project size and land condition. It provides estimates of possible sequestration of ERF projects. Access LOOC-C at <https://looc-c.farm/>
- Other tools are available that integrate the above in a more user-friendly interface

Step 2- Costs



Consider the costs of running a carbon farming project



A carbon farming project involves costs incurred at different stages:



Planning and establishment costs (may include agronomist or ecological advice, soil sampling, revegetation establishment/ha and preparation of a Land Management Strategy)



Ongoing project compliance and maintenance, reporting and auditing



The cost of your time running the project

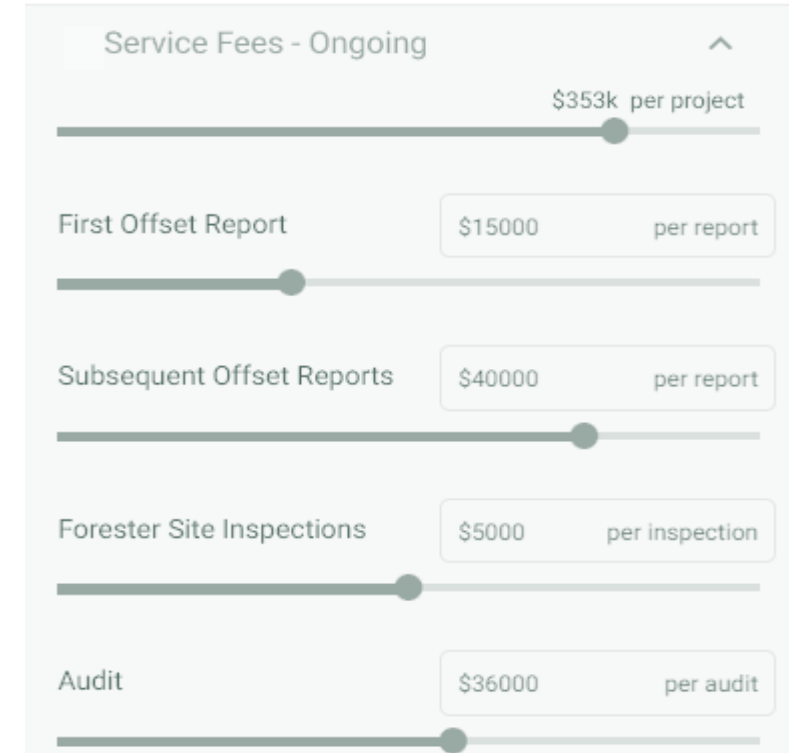
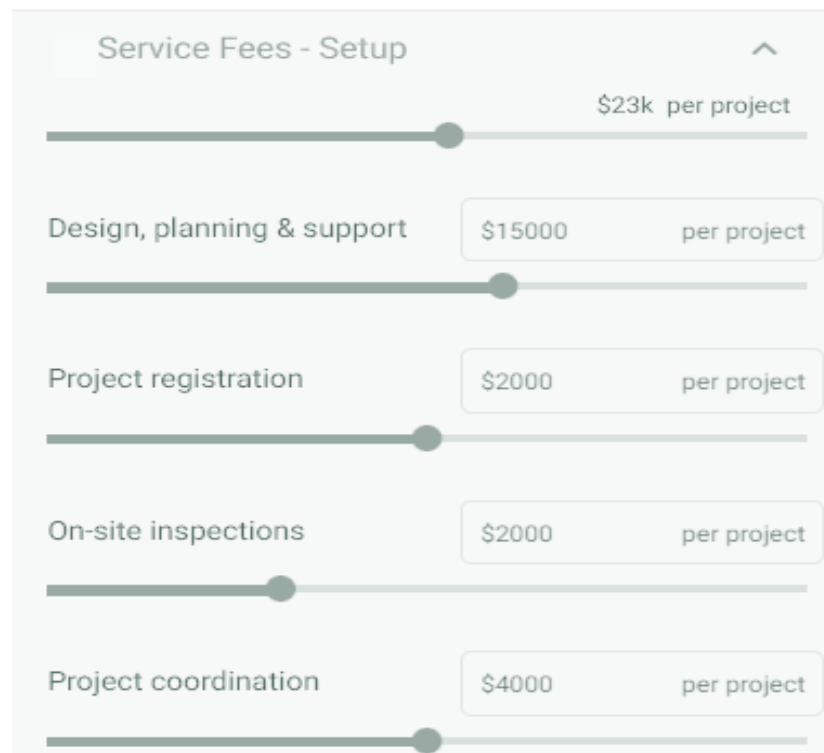
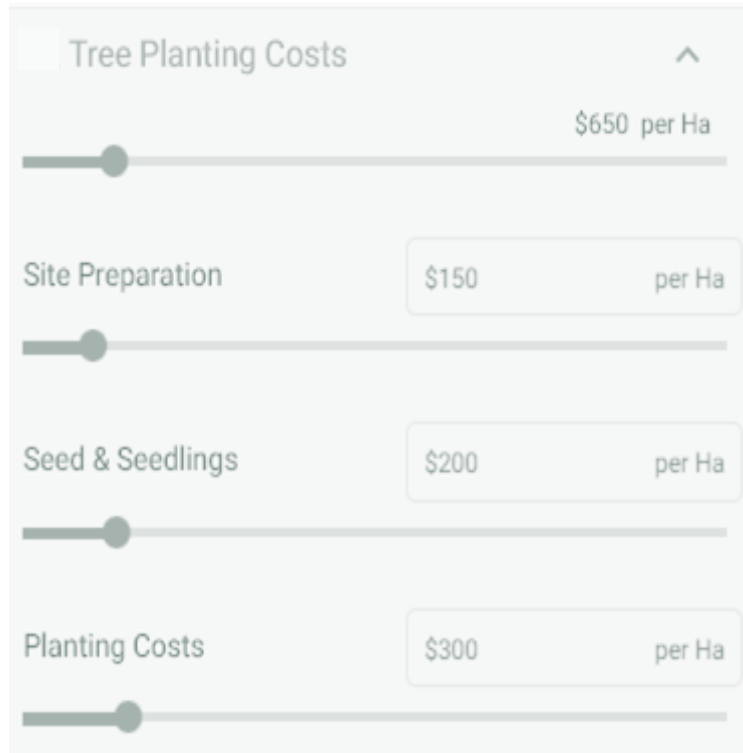


Any opportunity cost of land under revegetation or new production systems for soil projects

Example costs \$\$\$

Establishment cost examples

Ongoing maintenance reporting and compliance costs



Consider the potential revenue



The direct revenue from participating in the Australian Emissions Reduction Fund (ERF) depends on how many Australian Carbon Credit Units (ACCUs) the project generates



Estimating project carbon potential and therefore ACCUs generated is done using online software

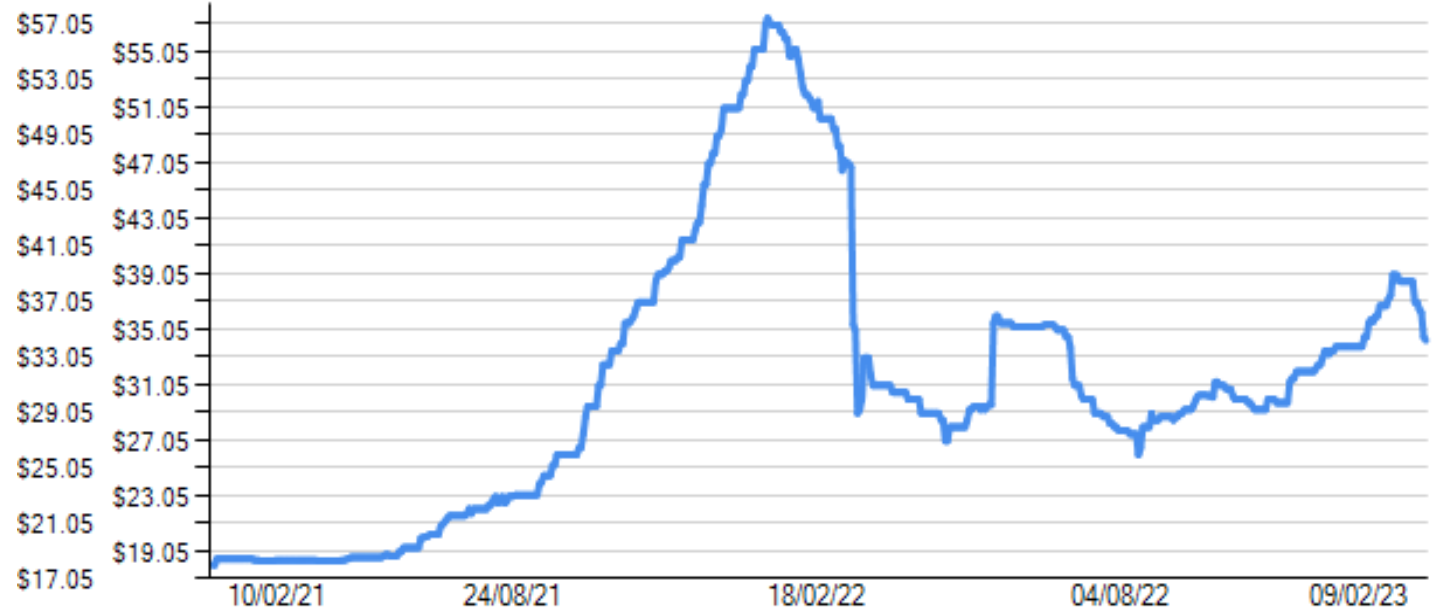


What price ACCUs are sold

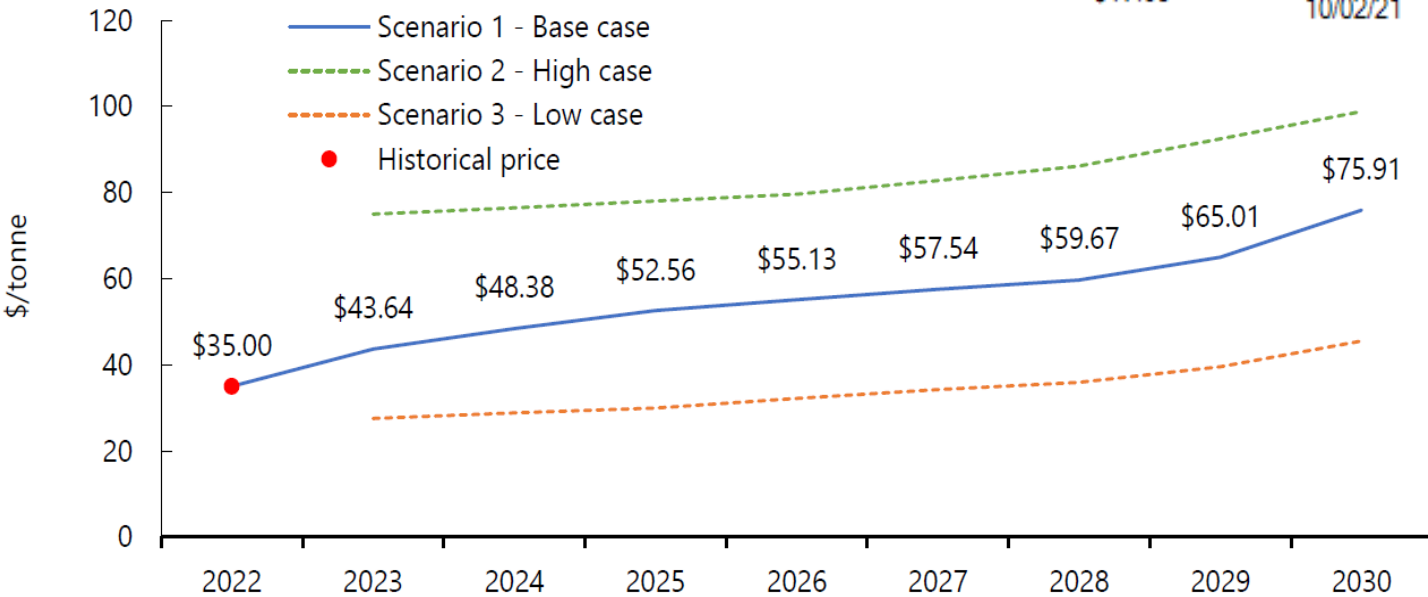
Carbon ACCU Market

PRICE HISTORY

ACCU SPOT PRICE



Source: Jarden Australia



Step 3- Plan your project

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Options for planning and delivering a carbon project

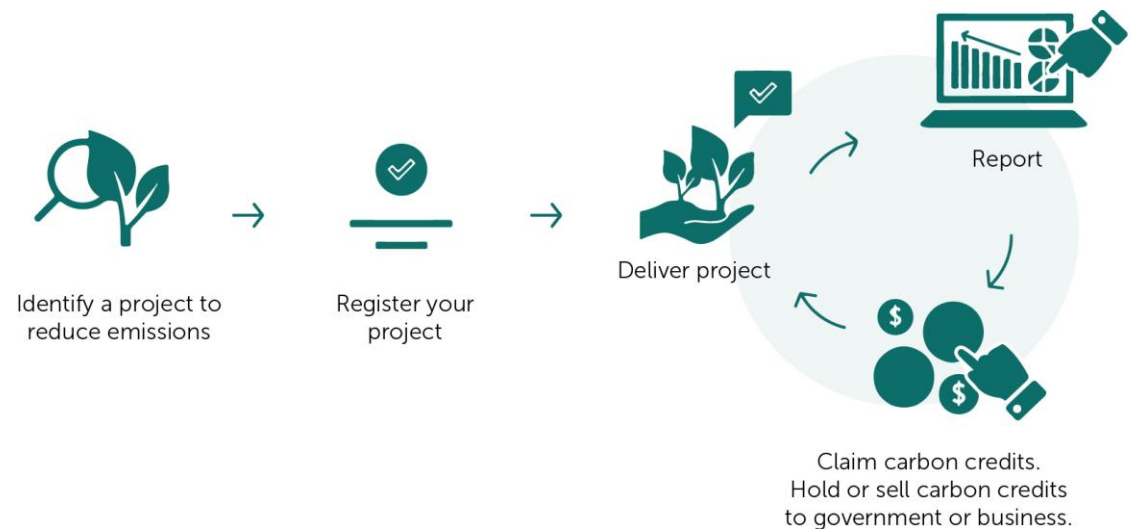
- **DIY + hire services to assist**, on a fee-for-service basis:
 - No formal partnership between landholder and project service provider / developer
 - Carbon project services provided ‘**as needs**’ basis
 - Suitable for landholders who have the **skills and capacity** to commit to a carbon farming project, reporting obligations, and who want to retain **all ACCUs** generated by the project
- **Project service provider (or agent):**
 - Service Provider (SP) manages many or most of the project activities
 - SP partners with the project proponent for its duration in exchange for an agreed % of ACCUs
 - Range 5% to 50% depending on project management, funding and who carries most of the risk
 - In this model, the project developer is not the project proponent
 - People wanting regulatory and financial control of their carbon farming project will often use this model
- **Project aggregator or developer:**
 - A project aggregator/developer undertakes and manages the project on behalf of the landholder(s)
 - Often a project aggregator works with a group of landholders
 - ACCUs distributed according to legal arrangement based on ACCUs generated by each landholding
 - Developer/aggregator typically takes full control of project development, management & sale of credits
 - The project developer/aggregator is the project owner and proponent



Registering - How participation in the ERF works

- **Steps:**

- Sign up for an account. (Current wait time is 2-3 months)
- Register the project before you begin activities (12 weeks)
- Provide a forward abatement estimate – ACCUs generated over 25 years
- Soil carbon projects require a Land Management Strategy before registration
- New Plantation Forestry method requires a Forest Management Plan before registration.
- Provide reports to the CER at least once every 5 years for ACCUs
- Permanence obligations – must be one of 25 or 100 years





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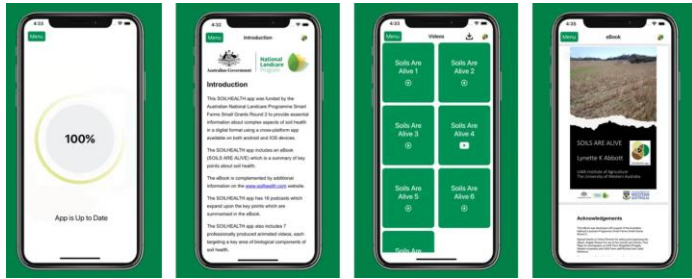
Resources to help

Where are you, and where do you want to go?

What is carbon farming?	I need undertake emissions calculations	I want to sequester carbon for my own emissions balance	I want to generate ACCUs to sell	I can't sequester so I need to offset	I planted trees what can I do with them	Ready to audit and /or sell ACCUs
<ul style="list-style-type: none"> ➤ Clean Energy Regulator (CER) ➤ Carbon Farming Foundation ➤ DPIRD ➤ Key Steps document 	<ul style="list-style-type: none"> ➤ DIY ➤ Carbon Active ➤ WA Service Providers ➤ DPIRD 	<ul style="list-style-type: none"> ➤ DIY ➤ Carbon Active ➤ Providers ➤ DPIRD ➤ Project developers 	<ul style="list-style-type: none"> ➤ DIY ➤ Providers ➤ DPIRD ➤ Project developers 	<ul style="list-style-type: none"> ➤ Providers ➤ Market Advisory Group ➤ CER 	<ul style="list-style-type: none"> ➤ Keep up to date Biodiversity Credit info ➤ Climate Active ➤ 3rd party credit schemes / private market 	<ul style="list-style-type: none"> ➤ CER ➤ 3rd party credit schemes / private market

*These are just some of the resources you can go to for further information

Sequestration planning tools



Soil

- [SOILHEALTH app](#) (free app)
 - UWA have collated five decades of soil biological health
 - Provides information about complex aspects of soil health in a digital format.
- [Soil Carbon Research Program \(SCaRP\)](#)
 - largest sampling and analysis program in Australia to measure stocks of soil carbon.
 - 20,000 samples from wide range of soil types and farming operations - 4000 different locations
- [Measuring and reporting soil organic carbon](#) – DPIRD's info on sampling, analysis and interpretation
- [Soil Carbon Measurement and Analysis Factsheet](#) – explains soil carbon measurement methods and sample analysis.



Agroforestry

- [South West Timber Hub](#) (higher rainfall areas of WA) - calculator called Decision Tree to assess the viability of tree cropping. Considers location, annual rainfall, soil types, land prices and comparative crops/production options.

1 US KEY ACTIVITY



Supporting the forestry sector in
the South West of Western
Australia

Education and tools - sequestration

Clean Energy Regulator

- participate in a CER registered project
- Methods & activities
- Auction process – buying and selling ACCUs
- Regulation
- Project register



The fit and proper person status - minimum performance expectations for project proponents who are carbon service providers in the Emissions Reduction Fund

Carbon Market Institute

- [Australian Carbon Industry Code of Conduct](#)
- [Australian Carbon Farming Industry Roadmap](#)
- Provide range of factsheets:
 - [Carbon Markets overview](#)
 - [Carbon – Key stakeholders](#)
 - [Participating in Australia's Carbon Market](#)



Market Advisory Group

- Carbon Industry Analysis
- Carbon e-news

DPIRD

- [Emissions calculation](#)
- Field research
- [Low Carbon Futures](#) resources ([Bioenergy](#), general carbon info, funding)
- [Carbon e-news](#)

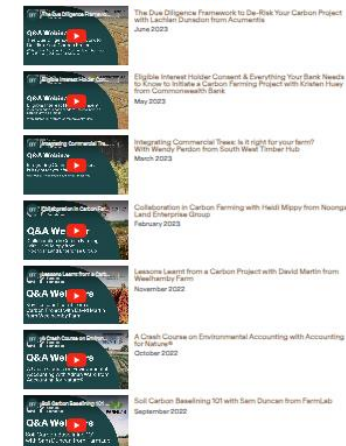
Carbon Farming Foundation

- EducationHub Carbon webinars and documents
- Carbon e-news

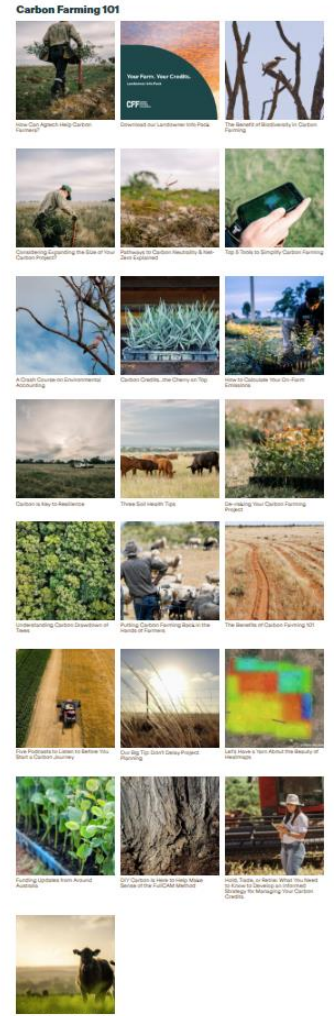
CFF's Q&A Webinar Series



CFF's Special Guest Webinar Series



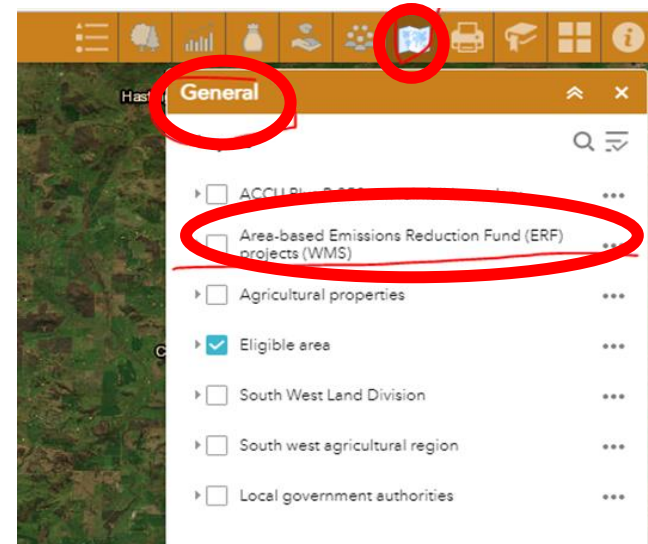
Carbon Farming Foundation



People

- [Natural Resource Management](#) groups (NRMs)
- **Local Grower Groups** – [Grower Group Association](#)
- **Industry Associations**
- **Government:**
 - Federal
 - [Clean Energy Regulator](#) – for all things carbon
 - [Department of Climate Change, Energy, the Environment and Water](#) (Climate Active - carbon neutrality) & Nature Repair Market
 - Local – for development approval
- [ERF register](#) / who's doing carbon farming in your area – look on our [portal](#)

You can look at all WA registered carbon projects [here](#)



Providers

Depending on your needs – you may need to seek advice on carbon farming from

- carbon project developers
- consultants
- ecologists
- nurseries
- financial advisors
- agronomists
- legal

A Service Provider Directory with self nominated providers is available at agric.wa.gov.au/CF-LRP



**Service Provider Directory:
Carbon Farming Advisors**

Choosing the Right Service Provider for your Carbon Farming Project

In alignment with the Clean Energy Regulator (CER), DPIRD advises landholders new to the carbon market and Emissions Reduction Fund to seek professional advice regarding the technical and regulatory aspects of a carbon farming project.

A detailed Land Management Strategy (LMS) enables landholders to make informed investment decisions about integrating carbon farming activities into their farming enterprise. An LMS is a requirement for soil and vegetation applications to the ACCU Plus stream of the Carbon Farming and Land Restoration Program (CF-LRP). The LMS can also be to register soil projects with the Clean Energy Regulator.

Service Provider Qualifications and Experience

Professional Service Providers active in the carbon farming industry offer a range of expertise. The type of provider will depend on the type of carbon farming project being considered. Landholders should undertake their own due diligence by checking the credentials of carbon farming project service providers. To assist landholders in their due diligence, the following qualifications or questions should be considered before contracting a service provider.

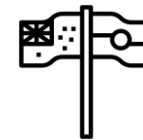
Carbon Project Developer

- Is the carbon project developer a signatory to the Australian Carbon Industry Code of Conduct?
- If the carbon project developer is providing financial advice (for example ACCU or derivative price forecasting, trading, investment strategies etc), do they hold the appropriate carbon market category Australian Financial Services Licence (AFSL)?
- Can the Project Developer provide examples of projects they have successfully established with other landholders?
- Do they have access to up-to-date software, mapping capabilities?

What are Co-benefits?

- Co-benefits are the additional, positive outcomes of a carbon farming project's activities.
- Add value to the carbon sequestered, and may help you achieve a premium for your ACCUs if you can demonstrate delivery – examples of co-benefits can include:

- Improving soil quality and water holding capacity
- Habitat for birds, pollinators, and other wildlife
- Shade and windbreaks to protect stock
- Stabilising dryland salinity
- Improving fertiliser use efficiency
- Improving amenity and aesthetics of local environment
- Aboriginal co-benefits business development / cultural connection
- Community –regional commercial opportunities and employment



Co-benefits Portal

Online tool helping project planners identify the Co-benefits that may apply to their project including:

- examples of evidence, data and information sources
- approaches to monitoring, evaluating and reporting
- which co-benefits are eligible when applying for the CF-LRP

Co-benefits Information Portal

The online [Co-benefits Information Portal](#) can help applicants identify the co-benefits that may apply to their project.

It allows the applicant to use GIS mapping and publicly available data from a wide variety of sources. It can be used to demonstrate co-benefit eligibility along with other resources and on-ground evidence.

The Portal can also be used to create site plans to demonstrate where the project activities are undertaken.



Part 1: Biodiversity & conservation co-benefit eligibility—co-benefit eligibility requirements can be demonstrated through the Portal. Further examples of Biodiversity & conservation co-benefits are provided in Part 2.

*In the example above, the property the activities will be implemented on is outlined in red. The co-benefit eligibilities that apply to the property area have been highlighted using blue arrows. Proponents can provide additional information to support the Biodiversity & conservation co-benefits proposed.

Online Tools

LOOC-B

Landscape options and opportunities for biodiversity

LOOC-B

A Landscape Options and Opportunities Calculator - for Biodiversity

To use this tool, you must create an account and login using the login feature

What is LOOC-B?

The LOOC-B tool offers a consistent standardised assessment of biodiversity indicators suitable for **monitoring** how biodiversity has changed over time and for **anticipating** the likely benefits of implementing different management strategies.

The user interface (this website) is intended to be an easy way to experience the tool's functionality; to obtain biodiversity information for a specified area in Australia.

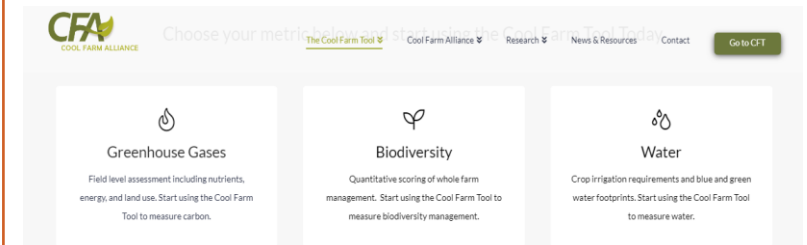
LOOC-B allows you to quickly assess likely biodiversity change when:

- **Planning** a carbon-farming action, or
- **Monitoring** carbon-farming action, such as tree planting

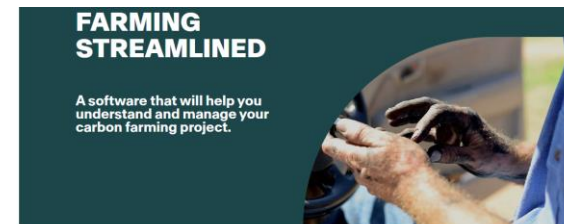
The estimates are calculated using an advanced machine learning approach that is continuously improved as new data becomes available.



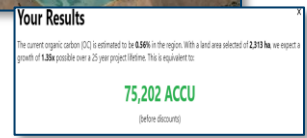
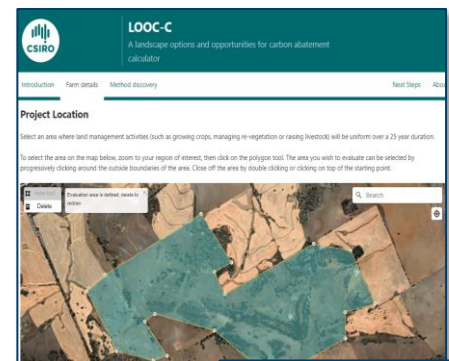
Cool Farm Tool – Free for Farmers



Carbon Scout



Carbon Scout is an online platform that allows you to quickly assess reforestation, plantation and soil carbon project feasibility on your land.



LOOC-C

Landscape options and opportunities for carbon abatement calculator



DPIRD

[Resources webpage](#) to identify ACCUs and help you plan a project
 Access past and upcoming [Webinars and Workshops](#)

Carbon for Farmers Voucher Program



Carbon for Farmers Voucher Program

- Funding available to primary producers
- Farmers work with a provider to develop a vegetation or soil carbon sequestration strategy
- Essentially a feasibility report to see if, and how carbon farming can fit into your agricultural / horticultural property
- Landholders co-contribute 20% of the voucher value.
- Landholders nominate Service Provider(s) to perform the proposed services
- Round 2- early August 2023.



WA Carbon Farming and Land Restoration Program (CF-LRP)



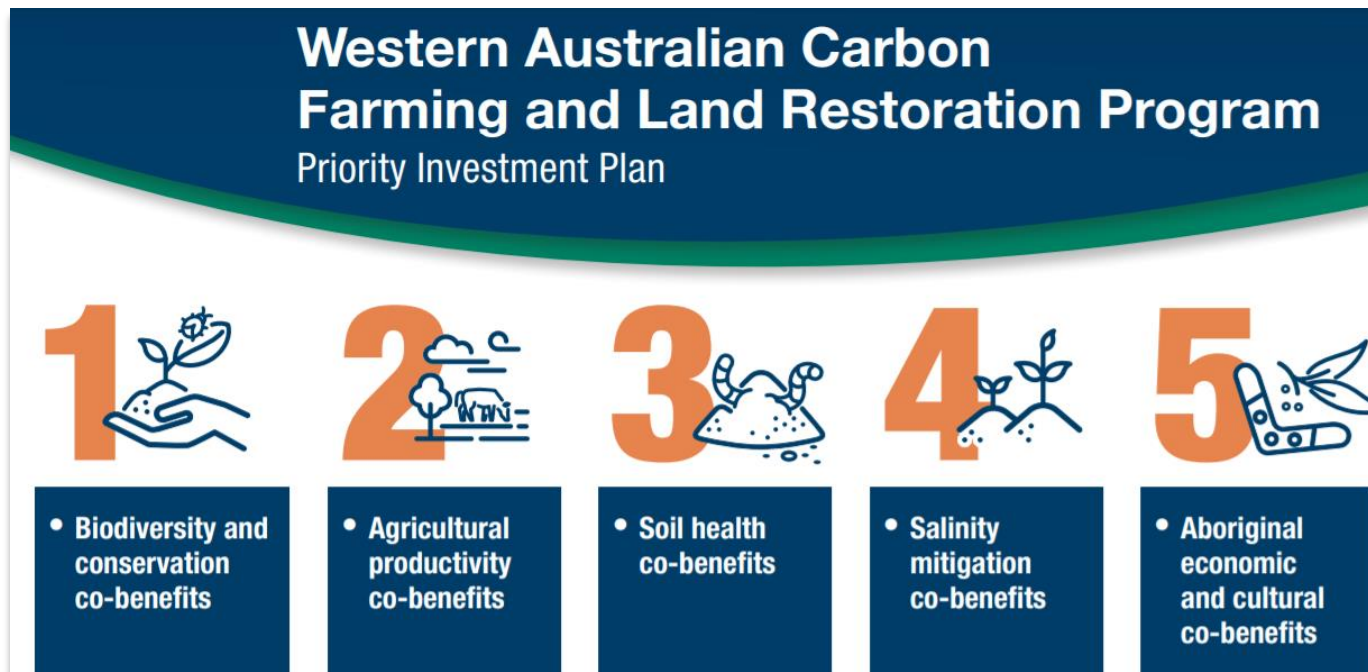
Carbon Farming and Land Restoration Program

\$15m program State Government funding program administered by the Rural Business Development Corporation with support from DPIRD

Designed to realise agriculture's potential to sequester carbon in the landscape and contribute to the growth of WA's carbon farming industry

Commitment under the WA Climate Policy

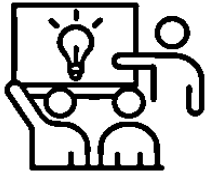
In parallel DPIRD are developing the WA Carbon Farming Industry Development Plan



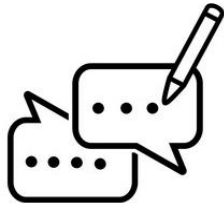
CF-LRP Design



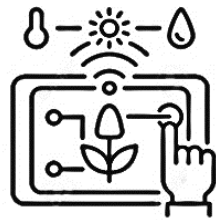
Provide **up-front funding** in exchange for an **in-kind repayment** of ACCUs.



Build **industry momentum** and deliver **co-benefits**



Share **knowledge** and improve **capability**



Support **innovative projects** that contribute to **climate resilience** and improving **agricultural productivity**

Core elements of CF-LRP

Provide up-front, interest-free capital to projects that generate ACCUs and deliver co-benefits to the State

- Integration with agriculture - maintain the integrity of rural communities and the agriculture industry
- Improve farmer knowledge of carbon farming
- Deliver co-benefits
- Monitoring, evaluation and reporting – important for Government and proponents to deliver learnings to broader agricultural community
- Encourage the supply of WA sourced carbon offsets

- Looking for Emissions Reduction Fund 'ready and aligned' projects
- Round 3 likely first quarter 2024

On the periphery

Federal Government's Nature Repair Market Bill 2023

- Biodiversity certificate for registered projects - enhance or protect biodiversity in native species;
- Projects registered, including compliance with an approved 'methodology determination';
- Certificates sold under commercial contracts
- The Bill is intended to work with the Carbon Credits Act (details not yet clear).
- Australian Carbon Credit Units (ACCUs) and biodiversity certificates can be generated from the same project area, providing incentives to deliver projects with both carbon and biodiversity benefits;
- Primarily administered by the Clear Energy Regulator (CER).
- [Factsheet](#)

Question Time

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More information

- DPIRD Carbon Farming and Land Restoration Program webpages

www.agric.wa.gov.au/CF-LRP

- Resources and How to Apply to the CF-LRP www.agric.wa.gov.au/CF-LRP/Resources (Service Provider Directory and Land Management Strategy templates)

- LOOC-C (CSIRO carbon mapping) <https://looc-c.farm/farmDetails>

- Climate Solutions Fund – all the methods and requirements

<http://www.cleanenergyregulator.gov.au/csf/Pages/CSF-home.aspx>

- Climate Resilience - [Climate Resilience | Agriculture and Food](#)

Post-workshop questionnaire



Thank you

dpird.wa.gov.au    

Visit: www.agric.wa.gov.au/CF-LRP

Google: **WA Carbon Farming and Land Restoration Program**

Email: **CarbonFarming@dpird.wa.gov.au**

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