PRE-PROJECT CARBON FARMING CHECKLISTS

QUEENSLAND

Background

The following check lists are a place for you to start collating the information you will need in order to start a carbon farming project when using one of the Emissions Reduction Fund Methods as set out by the Australian Government.
The check lists are to enable landholders to be in more control of the process of setting up a carbon farming project and the necessary data collection. In many cases the land holder has much of the information required or can record it in their daily work on their property.
The list of resources at the end of the document (or links throughout) should be used in conjunction with these check lists to enable understanding of the background of that particular requirement.
Do your OWN research BEFORE you sign documents with anyone.

For all Methodologies:

Eligibility and due diligence

- [ ] The carbon farming activity must be NEW and not started.
- [ ] You must meet the requirements of a Fit and Proper Person.
- [ ] Identify who will be the project proponent (landholder or carbon project developer).
- [ ] If you are using a Carbon Project Developer, have they have signed up to the Carbon Market Institute Code of Conduct?
- [ ] Look at more than one company before you commit to having a project appraisal done.
- [ ] Consider the time commitment you wish to give to your project. Project developers will include different services in their package to you.
- [ ] Engage any eligible interest holders early. Some will take many months to set up an agreement and some will require consent of other interest holders before giving their own consent. Eligible interest holders may include banks, Traditional Owners, the Crown/State and others.

Legal

- [ ] Seek legal advice. If you are dealing with an agent/project developer, consider provisions in any agreement for how they will operate and work with you, so they offer you some protection.
- [ ] You must have evidence of legal right or approval to run the project from the owner of the legal right.
- [ ] Understand your legal obligations. Ensure adequate record keeping, reporting, auditing, maintenance of carbon throughout the permanence period, maintenance of your status as a Fit and Proper Person and your legal right to undertake the project.

Financial

- [ ] Seek independent financial advice.
- [ ] Do you understand the options for selling your ACCUs?
- [ ] If you are selling ACCUs to the Australian Government's Climate Solutions Fund program you will need to set up a client portal account with the Clean Energy Regulator.

Reporting and Auditing

- [ ] Do you know how to find a category 2 greenhouse and energy auditor?
- [ ] What systems will you put in place to monitor your project and record information needed for reporting and auditing?
- [ ] What reporting periods will you nominate?

Human Induced Regeneration of a permanent Even-Aged Native Forest

Overview

The Human-Induced Regeneration Methods provide opportunities for regenerating forest on land that has been without forest cover for at least 10 years and does not have forest cover at the start of the project. The land must have been subject to management practices during those 10 years that suppressed the development of forest, and the land must be not able to attain forest cover without a change in those management practices.

Human-assisted regeneration activity means one or more of the following activities must be undertaken to induce the establishment of a native forest from in situ seed, lignotubers or root stock (coppice) sources:

(a) exclusion of livestock;
(b) management of the timing, and the extent, of grazing;
(c) management, in a humane manner, of feral animals;
(d) management of plants that are not native to the project area;
(e) cessation of mechanical or chemical destruction, or suppression, of regrowth.

The aim is for vegetation areas to go from "Sparse Woody" to "Forest Cover". Areas to look at are where there are already existing juvenile plants which could reach 20% canopy cover over 2m tall with a change in land management.

Where to start

- Gather information you have for the management of vegetation on your property for the previous 10 years.
  (a) Obtain property maps with fence lines and waterpoints as they were 10 years ago.
  (b) Note if there are water points, erosion areas, high feral animal populations in specific paddocks or areas, stocking rates and months or seasons that stock were in the project area.
  (c) Note significant weather events or disasters in the project area (eg fire, flood or drought).
- This evidence could include photos, photo points, invoices, vehicle logbooks, records of project activity, records of stock and feral animal management, or reports.
- Information could be logged as in the table below.

Management Activities/land use for the 10 years prior to project commencement

Activity in project area	Date	Evidence

Is this Method for you and your enterprise?

- Are there areas where you can alter grazing management of stock or feral animals?
- Look for areas that already have some juvenile plants growing.
- Look at your land systems or vegetation map to see areas where there is already forest/potential to have forest/no potential.
- Can you change the timing or extent of your grazing?
- Identify the project area carefully in terms of risk from fire or other natural disaster.

Human Induced Regeneration continued

Next steps if this is for you

- Work out a carbon estimation area. A carbon estimation area must:
  (a) be within the project area;
  (b) be a single area with an unbroken perimeter;
  (c) consist of land with even-aged regeneration; and
  (d) have a uniform land management regime across the area.
- To work out a Carbon Estimation Area you must use the Carbon Farming Initiative Mapping Tool or a geographic information system that meets the requirements of the CFI Mapping Guidelines. Monitoring and reporting on geospatial information must be done in accordance with the CFI Mapping Guidelines.
- Record a description of any management actions or disturbance events that affected a carbon estimation area during the reporting period, including actions proposed and undertaken to ensure that carbon stocks are restored; and
  Provide evidence that grazing, if any, has not affected forest cover.
- Collect and keep records of the project area. Evidence could include photos, photo points, invoices, vehicle logbooks, records of project activity, or reports. Information could be logged as in the tables below.

On the date of project commencement

Human-assisted regeneration activities that could result in the establishment of forest cover	Date	Evidence
Management Activity 1:		
Management Activity 2:		

Plant Species Mix/Mix of regeneration within project area.

	Date	Evidence
At commencement of project		
During project – Reporting period 1 (List)		
During project – Reporting period 2 (List)		

Federal Register of Legislation Determination 2013 Carbon Credits (Carbon Farming Initiative) (Human-Induced Regeneration of a Permanent Even-Aged Native Forest—1.1) Methodology Determination 2013 (legislation.gov.au)

Beef Cattle Herd Management

Overview

An emissions avoidance offsets project that can reasonably be expected to result in eligible carbon abatement through reducing emissions from a herd of cattle that are ordinarily grazed together, by any of the following:
(a) increasing the ratio of weight to age of the herd;
(b) reducing the average age of the herd;
(c) reducing the proportion of unproductive animals in the herd;
(d) changing the ratio of livestock classes within the herd to increase total annual live weight gain of the herd.

The methodology requires each herd in the project to:
(a) have continuity of management over time; and
(b) be managed and pastured separately from other herds.

Emissions from a beef cattle herd are related to productivity, which is influenced by feed composition and herd management practices. Emissions are reduced because cattle produce emissions for fewer days and fewer animals are required for a given level of output.

Running a beef cattle herd management project involves careful planning. Before you start, it is important to understand the feasibility of your project, how you will run your project, how you will set up record keeping and monitoring systems, and the options for selling your Australian Carbon Credit Units (ACCUs) earned from your project.

Where to start

- Gather the information you have on your cattle for the past 7 years.
  (a) Joining percentages;
  (b) Turn off time and live weight gains;
  (c) Details of feed regimes prior to a project commencing.

Is this Method for you and your enterprise?

- Is there something you can do to improve your pasture?
- Consider providing feed supplement all year round.
- Look at weaning percentages and consider culling unproductive cows.
- Install fences to control herd movements and improve joining practices.
- Expand watering points to allow cattle to graze more widely and better use available pasture.
- Have you established that your project is feasible?
- Can you meet the eligibility requirements outlined in the beef cattle herd management method?
- Do you know which activities you will implement and how, to lower cattle emissions intensity?
- What business operation you will use for the herd?
- Check the data inputs you need to collect the the herd management calculator.

Beef Cattle Herd Management continued

For each class of animal:

Number entered herd		Date	
Origin		Birth (date of branding), Purchase, other	
Number on that date		Head	
Average live weight		Kilograms	

Number left herd		Date	
Destination		Live export, slaughter, other	
Number on that date		Head	
Average live weight		Kilograms	

Number at start of year		Date	
Average live weight		Kilograms	
Number at end of year		Head	
Average live weight		Kilograms	

When considering dietary change in Herd Management

Average dry matter digestibility in each season without dietary change		Percentage of total dry matter	
Average crude protein of diet in each season without dietary change		Percentage of total dry matter	

For each livestock class for which a dietary change was a project activity

The period or periods of the year during which more than 50% of the animals in the livestock class experienced the dietary change		Days	
For supplementary feed used for the dietary change that was purchased from a commercial feed supplier—the dietary values of the supplements, as specified in a commodity vendor declaration form, fodder declaration form, or equivalent		Dietary values of supplements	
For supplementary feed used for the dietary change that was not purchased from a commercial feed supplier—the type of supplement		Type of supplement	

Next steps if this is for you

- What is your project's forward abatement estimate?
- Have you addressed all the additional information required as stated in sections 10, 11, 12 and 13 of the method?
- When will you commence implementation of your selected activity or activities?
- If selling your ACCUs to the Australian Government, plan how you will make sure your project report and application for ACCUs is prepared and submitted to the Clean Energy Regulator within six months after the end of each reporting period. The Clean Energy Regulator has 90 days to assess project reports and applications for ACCUs.

Federal Register of Legislation Determination 2015 Carbon Credits (Carbon Farming Initiative—Beef Cattle Herd Management) Methodology Determination 2015 (legislation.gov.au)

Increasing Soil Carbon

Overview

The aim is to improve soil carbon stocks by increasing the amount of organic material or carbon added to the soil, and by slowing the rate of decomposition of organic material and carbon from the soil.

This methodology aims to increase the absorption and storage of carbon within the soil.
There are major benefits to increasing soil carbon with an improvement in soil health, water retention and productivity.

Where to start

- Gather information you have about your soil.
  (a) Soil type (clay, loam, sand) and any soil testing information you already have;
  (b) Look at soil maps to understand different soil types you may have in different areas;
  (c) Average annual rainfall and when rainfall is most and least likely;
  (d) Management history eg tillage, fertiliser and nutrient management, ground cover.
- Days of frost, flood, drought, extreme heat.

Is this Method for you and your enterprise?

- Do you have the opportunity to change management practices to reduced tillage or no-till practices?
- Look at areas which may be remediated eg acid soils, low nutrient soil.
- Practices that may be considered could be establishing or rejuvenating pastures, fertiliser application, reducing stubble removal.
- Planned grazing, biological fertiliser, selective use of herbs, forbs, grasses and cereals and livestock management.
- Will your project reasonably be expected to result in eligible carbon abatement.

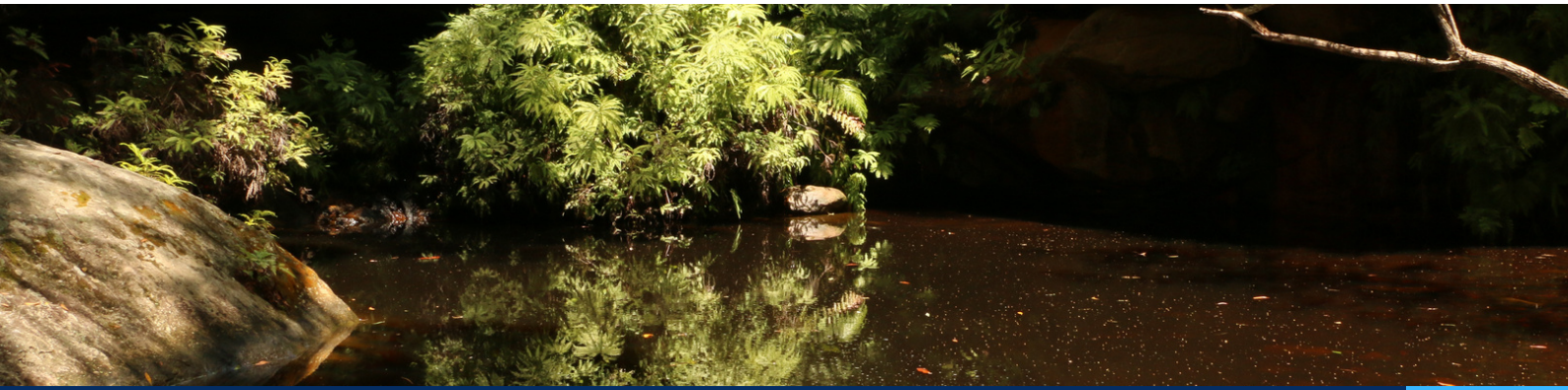
Next steps if this is for you

- Create a land management strategy (LMS) which identifies at least one eligible management activity that will be undertaken by a project to build soil carbon throughout the permanence period of the project (either 25 or 100 years).
- The method requires the LMS to be prepared by an independent person, with appropriate knowledge of agronomy, plant nutrition and soil carbon; and experience in providing agricultural production advice. The independent person must have no financial interest in the project.

Increasing Soil Carbon continued

- An eligible management activity involves one or more of the following land management activities:
(a) applying nutrients to the land in the form of a synthetic or non-synthetic fertiliser to address a material deficiency;
(b) applying lime to remediate acid soils;
(c) applying gypsum to remediate sodic or magnesic soils;
(d) undertaking new irrigation;
(e) re-establishing or rejuvenating a pasture by seeding;
(f) establishing, and permanently maintaining, a pasture where there was previously no pasture, such as on cropland or bare fallow;
(g) altering the stocking rate, duration or intensity of grazing;
(h) retaining stubble after a crop is harvested;
(i) converting from intensive tillage practices to reduced or no tillage practices;
(j) modifying landscape or landform features to remediate land;
(k) using mechanical means to add or redistribute soil through the soil profile.
- And is an improvement on the land management activities conducted in the agricultural system during the baseline period such that:
(a) at least one of the land management activities is new or materially different from the equivalent land management activity conducted during the baseline period; and
(b) more carbon can reasonably be expected to be sequestered in that system as a result of carrying out that land management activity; and
- The project proponent must map land within the project area for the project into one or more carbon estimation areas (CEAs).
In your application you must include:
(a) a detailed description of the land management activities that were carried out during the baseline period; and
(b) a detailed description of the eligible management activities that will be carried out as part of the project until the end of the permanence obligation period; and
(c) a detailed explanation of how the eligible management activities to be carried out satisfy the requirements in subsection 7(2); and
(d) evidence that all of the land included, or to be included, in a Carbon Estimation Area (CEA) is eligible land; and
(e) if biochar is to be applied to the soil—evidence that the requirements of subsection 12(5) have been met.

Federal Register of Legislation Determination 2018 Federal Register of Legislation - Australian Government (Carbon Farming Initiative – Measurement of Soil Carbon Sequestration in Agricultural Systems)



Savanna Fire Management – Sequestration and Emissions Avoidance

Overview

The aim is to reduce the frequency and extent of late dry season fires which are often hot, fast, uncontrolled fires. Cooler fires have a different emissions profile with less concentration of greenhouse gasses.

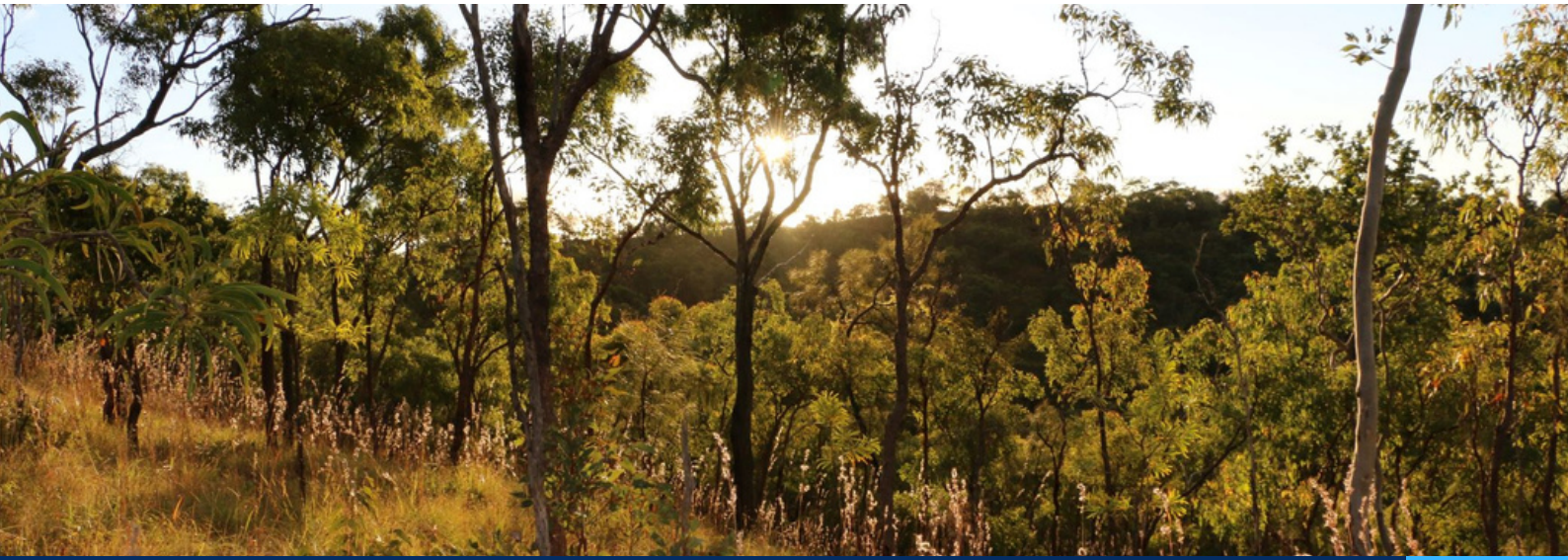
Satellite imagery fire scar maps are used in the calculations used to estimate abatement for each calendar year, and for determining the years since each mapping unit was last burnt.

The Emissions Avoidance method is calculated each year, independent of the previous year. It seeks to calculate the difference between the calculated baseline (average of the 10 years prior) and that year's cooler, early dry season fires. Your carbon credit will be your baseline emissions minus current year fire emissions.

The Sequestration method has the Emissions Avoidance (as above) and in addition includes Carbon Sequestration. Sequestration of carbon stores is related to the current and previous year's activities as it looks to calculate accumulated stored carbon in woody debris.

Where to start

- Know what vegetation is in different places on your property.
  (a) Identify areas as Open Forest, Woodland, Shrubland, Hummock grasses or Mixed grasses;
  (b) Identify main tree and shrub species;
  (c) Identify some soil types eg: well-draining sandy, rocky layers or hills.
- Create a Vegetation Fuel Type map for each project area. There are 9 vegetation fuel types for which abatement can be estimated. They are based on different canopy heights, foliage cover and grass type and can be selected from a table in the Savanna Technical Guidance document according to whether you are in high or low rainfall regions of northern Australia.
- You will also need to create a Year Since Last Burnt map as set out in the Savanna Technical Guidance document. This will involve generating yearly fire maps for the calendar year that the Year Since Last Burn map is being created, and for each of the 10 preceding calendar years. This is achieved by aggregating either monthly fire scar maps or seasonal fire scar maps. The North Australia & Rangelands Fire Information service (NAFI) has this information available free online.
- The Savanna Technical Guidance document sets out how to select appropriate mapping units and how to work out the appropriate vegetation fuel type for the area of land. This can be found with other resources on the CER web page with the Savanna Burning Method information.



Savanna Fire Management continued

Is this Method for you and your enterprise?

- Are you willing to change or be proactive about burning regimes on your property?
- Can you see stock management, environmental, pest management or asset protection benefits for controlled burning earlier in the wet season?
- Is your area of land wholly within the high rainfall zone (>1000mm) for 10 years? or
- Is your area of land wholly within the low rainfall zone (>600-1000mm) for 15 years?
- You will need to use the Savanna Burning Abatement Tool (SavBAT). The tool automates the GIS processes and mathematical equations required to estimate the net abatement for projects registered under savanna fire management determinations of the Australian Government's Emissions Reduction Fund (ERF). SavBAT uses monthly fire scar maps from the NAFI website. Together with user supplied project data and Years-Since-Last-Burnt maps, these enable the calculations within each savanna fire management determination to be followed with minimal user time or effort. SavBAT reports meet some of the record keeping and reporting requirements of the savanna fire management determinations.
- Have you got a baseline you can improve on? The baseline is calculated using the fire scar history, averaging the previous 10 years of early or late dry season burns before the project commencement date.

Next steps if this is for you

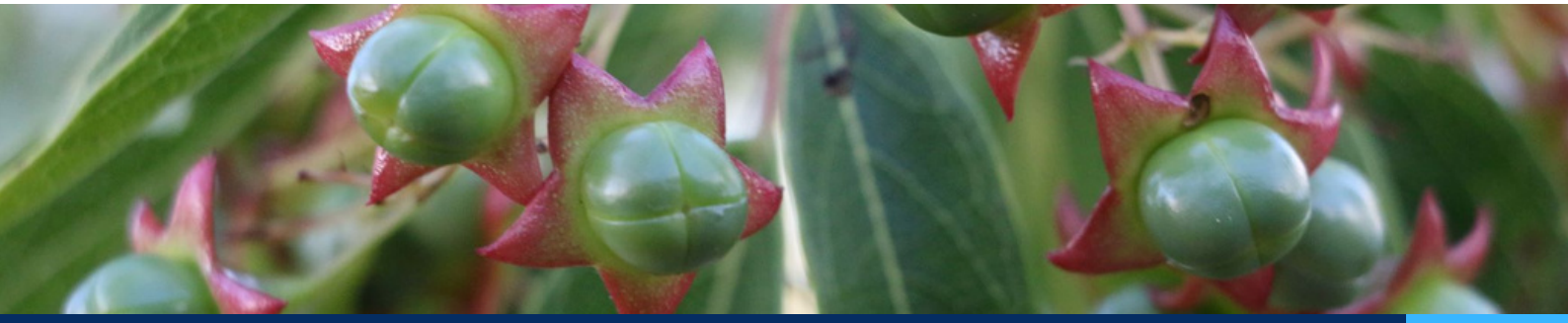
- You must prepare a plan that describes the planned burning that is intended to be undertaken in each project area for that year. The plan may be updated or revised.
- You must monitor the presence of each relevant weed in the project area. There is a spatial layer in SavBAT to identify and report on the management actions for specific weeds for your project area.

Federal Register of Legislation Determination 2018 Federal Register of Legislation - Australian Government

Additional Information to support projects or further benefits of projects

The following may assist your preparation for establishing historical use of the land and establishing baseline data

- When has the land been cleared? (List the years)
- What other involvement has the property had to improve land condition/biodiversity? (List on-ground works)
- Is your property business involved in groups that ultimately aim to improve land condition/biodiversity? (Landcare, Producer groups, Drought/Weed/Water taskforces)
- What surveys have been undertaken to identify environmental assets on the property? (Birds, Reptiles, Marsupial, Land Condition Monitoring, Flora, Weeds, Pest Animals)
- Does your property have a current Biosecurity Plan?
- Does your property have a current Property Management Plan?
- Has your property had a Land Assessment or a Biodiversity Assessment done? (Often by DAF or NRM Staff)



Useful Resources:

Organisations' Carbon Farming Links

- Methods for the Emissions Reduction Fund
  https://www.industry.gov.au/regulations-and-standards/methods-for-the-emissions-reduction-fund/

- Steps to Participate in the Emissions Reduction Fund, Forms and Resources, Contract Registers
  www.cleanenergyregulator.gov.au/ERF/Want-to-participate-in-the-emissions-Reduction-Fund

- Land Restoration Fund, Qld
  https://www.qld.gov.au/environment/climate/climate-change/land-restoration-fund

- Find a carbon farming method that's right for your business (Land Restoration Fund document)
  https://www.qld.gov.au/__data/assets/pdf_file/0034/117979/carbon-farming-methodology.pdf

- Queensland Farmers' Federation
  https://www.qff.org.au/advocacy/carbon-farming

- Natural Resource Management Regions Queensland
  https://www.nrmrq.org.au/publications/

- Carbon Market Institute
  https://carbonmarketinstitute.org

- North Australia & Rangelands Fire Information service (NAFI)
  https://www.firenorth.org.au/nafi3/

Federal Registers of Legislation Determination

- Human-Induced Regeneration - https://www.legislation.gov.au/Details/F2015C00576

- Beef Cattle Herd Management - https://www.legislation.gov.au/Details/F2015L01434

- Savanna Fire Management - Sequestration & Emissions Avoidance - https://www.legislation.gov.au/Series/F2018L00562

- Measurement of Soil Carbon - https://www.legislation.gov.au/Series/F2018L00089

- Inputs into Herd Management Calculator -
  https://www.legislation.gov.au/Details/F2015L01434/Html/Text#_Toc426038050