

Decision Tree

A CROP FOR THE FUTURE



In this Guidance Note

In this guidance note, we explore one of the methods you can use to earn carbon credits and sell them. Under the Decision Tree method, you may choose to work with service providers to access the benefits of carbon sequestration. Accessing carbon credits for farm forestry can substantially improve the return on your investment, however accessing carbon markets as a small grower can be expensive and tricky to navigate.

Plantation Forestry Method

This is one of many methods which tests a project to see if you can potentially earn carbon credits Australian Carbon Credit Units (ACCUs) and sell them to the Australian Government, or to companies and other private buyers.

This is a draft method ('2021 method')[1], which builds on the current plantation forestry method 2017 [2], further encourages the plantation forestry industry to run projects that reduce or remove greenhouse gas emissions from the atmosphere.

The 2021 method is moving towards approval to become legislation. It is very likely that there will be further versions, as the environment, forestry industry, and government policies change.

Cancelling the 2017 method (with existing projects transitioning), the 2021 method broadly make some upgrades.

2021 METHOD	SCHEDULE	ELIGIBLE ACTIVITY	COMMENTS
Retains:	1	Establishing a new plantation.	Updates to remove barriers to participation in these activities and removes some species restrictions.
	2	Converting an existing plantation from short to long rotation.	
Adds:	3	Continuing plantation forestry.	If a forest would have otherwise been converted to non-forest land, this newly avoided conversion activity permits eligibility.
	4	Transition to permanent forest (non-harvested forests).	

[1] DRAFT Carbon Credits (Carbon Farming Initiative - Plantation Forestry) Methodology Determination 2021

[2] Carbon Credits (Carbon Farming Initiative - Plantation Forestry) Methodology Determination 2017

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Schedule numbers represent the eligible projects and we are interested in schedule 3 and 4 activities, which mandate, amongst other requirements [3], that:

- Depending on land tenancy, you declare that the plantation is likely to convert to non-forest land in the next 12 months
- You make a financial assessment which demonstrates that your plantation is likely to convert to a financially attractive alternative land use relative to continuing plantation forestry.

The financial assessment aspects are the issues we debug [4] here.

Assessment

It is an eligibility requirement and its purpose is to compare returns (without ACCU income) between your options of.

- Converting a plantation to a non-forested land use, or
- Continuing a plantation.

Continuation with your forestry project is incentivised by access to ACCUs. A core to the assessment is that a sensible choice is made in continuing the plantation or transitioning to a permanent forest.

How do I assess?

You need to:

- Seek independent professional assistance
- Read and understand the [financial assessment guidance](#) and noted documentation
- Assess and understand the numbers behind your project and the other options available.

What are the tests?

To access ACCUs, the assessment has two 'gateway' tests you need to pass. These are:

1. Base returns from continuing forestry are less than the returns from non-forestry
2. Project returns are more than a minimum economic viability threshold.



[3] DRAFT Simple Method Guide for the 2021 plantation forestry method

[4] DRAFT financial assessment guidance for the 2021 plantation forestry method

[5] Net present value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over time. The formula accounts for the time value of money and is used to compare investment project alternatives.



Gateway 1

To work out the comparisons, you will first consider what business as usual (BAU) would be without ACCUs.

You declare a choice to either:

- Sell the land which your plantation is on, or
- Hold (say use the land for cropping/grazing/subdivision).

The gateway ensures additionality whereby if your intention is to:

- **Sell**, the comparison is based on **value**, demonstrating:

RETURNS FROM BAU		
The return (NPV[5]) of the plantation forestry including land value increases but excluding land lease.	is less than	Land value, less conversion costs of the plantation to cropping/grazing/subdivision use)

- Or if you **hold**, the comparison is based on **use**, demonstrating:

BASE RETURNS (excluding ACCUs)		
The investment return (NPV or IRR [6]) of plantation forestry, including land lease.	is less than	The investment return (NPV or IRR) of cropping/grazing, incorporating the cost of land in the cash flow.

After choosing value or use and meeting the relevant test criteria, you then need to meet the second gateway test.

Gateway 2

Continuing the plantation or transition to a permanent forest is to be **economically viable**.

In calculating viability, you model the '**project returns**' including ACCUs and including land rent, whilst accounting for full rotations to cover the project lifespan (either 25 or 100 years).

This calculation is an IRR based on cashflows in and out, where the IRR needs to be **greater than** a threshold rate of return, which is a benchmark return a reasonable person would consider acceptable. This gateway test ensures permanence.

[6] Internal rate of return (IRR) estimates the profitability of an investment project by calculating a discount rate that makes the NPV of all cash flows equal to zero and is used to compare the investment project alternatives.



Factors to consider

There are certain things you need to be aware of, these include:

- The numbers are best reworked back to a \$/ha basis throughout.
- In all cases income and costs are to be broken up, adjustments made per the relevant guidelines, and modelled in cashflow statements, showing money in and money out, which is discounted where required using NPV or IRR analysis.
- The discount rate is determined by reference to Consumer Price Index, Producer Price Index, or Wages Growth Index published by the Australian Bureau of Statistics. It is a reasonable assumption.
- A defined property area (Carbon Estimation Area) accompanies the assessment to better describe the project and where adjustments are made for differing forestry vs non forestry 'footprints'.
- A management plan for the project accompanies the assessment (specified management regime).
- Time frames are to be considered with full forestry rotations (from planting to harvest) that cover at least the 25 year crediting period, with adjustment for partial rotations, or actual lifespan for 'project returns'.
- Plantation productivity yield is typically determined by mean annual increment (MAI) yield, at each thinning and harvest, then multiplied by log prices (by product).
- Plantation costs to be considered include remediation, establishment, maintenance, and operating costs.
- Production costs to be considered include marketing, roading and harvest (thinning/final harvest), and overheads.
- Carbon sequestration is calculated each year based on FullCAM [7] and price is based on reasonable current market assumptions.
- Land lease, values, and capital appreciation require certain evidencing and adjustments particular to each choice and notional amounts are applied where actuals are not incurred.
- Supporting assumptions rely on ABARES data, your financials, management regimes, independent valuers, FullCAM, regional studies, and industry relevant information to name a few sources. Where assumptions differ from publicly available data, explanation is required.

more information

The [guide](#) provides details necessary to prepare the financial assessment and includes:

- Purpose of the financial assessment.
- Basic comparison requirements.
- Explanatory notes on the concepts used.
- Detailed explanations of how to work out each part of the assessment.
- Inputs required to complete the assessment including a plantation cashflow template.
- A checklist for review and sign off by the qualified independent professional.

[7] FullCAM is a free [Full Carbon Accounting Model](#)

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