

FOREST CARBON MARKETS



CONTEXT

Globally, it is well recognised that forests, including avoiding deforestation, play a critical role in helping to mitigate the effects of climate change through carbon capture and storage. While more carbon is stored in older forests than in younger forests, the rate of carbon capture is significantly higher in young actively growing trees. Globally, and across Australia, forests are an important carbon sink, and when appropriately protected and sustainably managed, can absorb more carbon than is emitted from a range of forest management activities. Sustainably harvested wood products are renewable and can act as a long-lived carbon store as well as replace fossil fuel usage as an environmentally friendly energy source. In Australia, the value of forests in mitigating climate change is recognised through existing and proposed carbon credit markets and emission reduction incentives. To generate Australian carbon credit units (ACCUs), projects can be developed to apply an approved methodology under the ACCU Scheme (formerly the Emissions Reduction Fund (ERF)). Integrity of carbon projects is crucial to the carbon market. Approved methods work to create real and quantifiable levels of greenhouse gas abatement that would not occur without the carbon project. There are opportunities to further develop methodologies and uptake within the forest growing and downstream wood products sectors to leverage the carbon benefits that forests bring.

FORESTRY AUSTRALIA ADVOCATES THE FOLLOWING:

- Carbon market frameworks in Australia should incentivise best practice tree growing and forest management through both crediting genuine additional emissions abatement and adapting to new information or approaches that are identified.
- The application and development of credible methods must be supported by research and monitoring, considering net accounting factors such as leakage, additionality, product substitution and sequestration.
- The design of carbon accounting systems, carbon trading schemes and other policy incentives should consider the needs and opportunities for small-scale forest growers, the carbon storage and product substitution benefits of wood compared to higher emission construction materials, and the opportunities for substituting biochar and bioenergy for fossil fuel.
- Ongoing reforms to carbon market frameworks must:
 - protect and enhance the integrity of the carbon market;
 - broaden the range of sustainable forest establishment and management activities that are eligible for recognition;
 - broaden the scope of methods for ecologically sustainable management of native forests; and
 - work to increase the commercial viability of forest carbon projects and address barriers to participation for small-scale forest growers.
- Maintaining the integrity of carbon markets and individual carbon projects is crucial and can be supported through systematic integration of advice and expertise from Registered Forestry Professionals and researchers in the design and implementation of reduction activities, incentives and trading schemes, and throughout carbon project lifecycles.
- The co-benefits associated with forest carbon projects need to be recognised, understood and promoted to improve the overall value proposition for carbon project uptake. Similarly, ongoing research and monitoring is required to ensure dis-benefits are understood and avoided.

- Targeted strategies to remove barriers to expanding the forest estate, particularly for farmers and primary producers, is required if the Australian Government's policy objectives to meet 2050 net-zero carbon goals are to be achieved.

SUPPORTING NOTES

Globally, anthropogenic carbon dioxide emissions are about 12 times higher than the drawdowns from the atmosphere. However, forests overall act as a carbon sink, by removing carbon dioxide from the atmosphere and storing it in the form of wood. The world's forests sequestered about twice as much carbon dioxide as they emitted between 2001 and 2019. Ultimately, whether individual forest areas are carbon sources or sinks depends on the timeframe and scale considered, as well as changes to forest types, age or structures caused by weather and climatic events, the natural aging process, forest management decisions and deforestation. Carbon markets therefore have an important role to play in encouraging sustainable forest management.

Increasing carbon sequestration through reforestation and halting deforestation are essential components of responding to greenhouse gas emissions and climate change. Carbon capture and storage in forested landscapes can be maximised through ecologically sustainable management of native forests, maintaining and growing plantation and farm forestry estates, supporting new forest plantings and forest restoration, the sustainable use of wood products, and partnering with the agriculture sector to derive and realise the numerous co-benefits associated with the integration of trees in rural landscapes.

Internationally, the Intergovernmental Panel on Climate Change (IPCC) has consistently recognised that ecologically sustainable forest management, aimed at maintaining or increasing forest carbon stocks and facilitating sustained yields of timber, fibre and energy from forests, will deliver the greatest climate change mitigation benefits. Expanding Australia's national plantation estate, encompassing farm forestry, represents a significant opportunity for Australia to reduce its greenhouse gas emissions profile. Plantation forests are grown to provide wood products for society - products that are natural, renewable

POSITION STATEMENT

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and recyclable, making them an excellent substitute for more carbon-intensive materials in an increasingly waste-conscious society. Developing methods for improving yields and carbon sequestration from natural forests through ecologically sustainable forest management and use of wood products is another important opportunity. However, currently in Australia there are no approved methods relating to the management of native forests, which is a major gap, given the scope for improved forest management across a range of forest types.

The Commonwealth Government's *Carbon Credits (Carbon Farming Initiative) Act 2011* (CFI Act) provides the framework for registering and undertaking carbon projects in Australia, including issuing of 'Australian carbon credit units' (ACCUs). For projects to participate in the carbon market, there must be an applicable approved 'methodology' that addresses the activity for which carbon credits are sought.

Carbon projects can be:

- sequestration projects – creating enhanced draw-down or storage of carbon in live biomass, dead organic matter, soils and wood products; or
- emissions avoidance projects – reducing greenhouse emissions that would otherwise have happened without the project.

In early 2023, there were 37 methodologies, including nine forest-related sequestration methods. Although increasing carbon sequestration and storage is a key component of attempts to halt climate change through offsetting emissions, real climate benefit will only be achieved through reducing emissions in the first place.

Integrity of the carbon market is foundational to its success. To demonstrate integrity, carbon methodologies and projects must abide by the following key principles:

- Additionality – the activity would not occur in the absence of the carbon project.
- Permanence – the carbon credited will not be fully or partially lost due to future events.
- Measurement – the project includes a clear baseline and approaches that ensure emissions and removals are appropriately accounted for.
- Acknowledgement of leakage – the project recognises and addresses the potential for increased emissions or reduced sequestration outside the project boundaries.

A key environmental integrity control in the 2022 Plantation

Forestry method is the requirement for a Registered Forestry Professional (RFP) to sign off on the Forest Management Plan under all Schedules in the method. Involving professional foresters, forest growers and forest scientists in the design of carbon market initiatives can help ensure that incentives will work as intended. The role of RFPs in the 2022 Plantation Forestry method will enhance the integrity of projects registered under it, and such an approach should be considered as part of other methodologies.

In addition to earning ACCUs, projects can provide a range of other direct benefits, called co-benefits. Improving water quality, farm resilience, increasing biodiversity and supporting indigenous livelihoods are just some potential co-benefits. These can act as a key driver to attract well-designed carbon projects, incentivise sustainable management practices, and deliver on many priorities that might otherwise go unrealised. Some carbon projects may not be viable on their own, especially when the carbon price does not cover the project costs. However, quantifying and pricing co-benefits associated with the carbon project can improve project feasibility. Nevertheless, there are also potential dis-benefits of carbon projects, that require consideration during project design. In relation to forestry projects, these may include, for example, reducing water yields and conflict with other land uses.

High cost of assurance on smaller projects, failure to recognise all carbon in plantations, and limited species and management options, are all factors that act as barriers to landholders who may otherwise participate in the carbon market. Furthermore, additional research is needed to identify new tree species that will grow well under future climatic conditions. The forest industry has commenced this work, but carbon market rules and regulations must be able to adapt to changing management practices and ensure these changes are reflected in the rules applying to projects.

A significantly higher price for ACCUs is required to attract new activity. The price of ACCUs has not been sufficiently high to attract significant investment in revegetation, while the reverse auction process has failed to facilitate a price sufficient to attract new plantation supply. The key principle of the ERF was least cost abatement (priority given to the cheapest carbon credits) which, combined with the reverse auction process, has put downward pressure on prices and does not allow price transparency, as occurs in all other market-based agricultural commodities. This can lead to perverse outcomes, including favouring abatement from projects with lower integrity.

Further reading

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