

Inquiry into the Carbon Farming Initiative Legislation

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Australia's natural environment is in a parlous state. Biodiversity is in decline, large areas of land and water are degraded, including in the marine environment, and carbon stocks are substantially depleted. There is great potential to mitigate climate change through landscape restoration and stewardship. The Carbon Farming Initiative (CFI) is intended to help address this by channelling carbon finance into the landscape. Recognition of the crucial role of the landscape (including the marine environment) in mitigating climate change does represent a major opportunity to boost funding for the landscape sector. However, there has been little discussion about whether the CFI is the best or even a suitable way to proceed.

This submission strongly supports the need for a major increase in funding for biodiversity and agricultural land management. It recommends that this should be achieved by setting aside a minimum of 20% of the revenue from the carbon price scheme currently under negotiation and allocating the money through a fund (or funds) with defined objectives and priorities. A Biodiversity and Climate Fund would provide funding for biodiversity and ecosystem stewardship and restoration (including in the marine environment). It could be complemented by a fund to give incentives for improving agricultural land management. The CFI should provide the framework to enable participation in voluntary markets.

Background

The need and the responsibility

Australia has an obligation under the UN Framework Convention on Climate Change and the Kyoto Protocol to '...adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs' (Article 4.2 of the Convention). Sinks are processes that remove greenhouse gases from the atmosphere such as forests and other ecosystems. Reservoirs are components of the climate system where a greenhouse gas or its precursor are stored (for example, ecosystems are carbon reservoirs).

Australia's responsibility in relation to the land sector is therefore twofold: to limit emissions and to protect reservoirs. Limiting emissions includes avoiding deforestation and ecosystem degradation and reducing agricultural emissions. Protecting reservoirs includes restoring degraded ecosystems, both natural and agricultural, as well as actively managing carbon reservoirs in biodiverse natural ecosystems that are at or near their natural carbon carrying capacity to improve their resilience in the face of threatening processes including climate change. While the latter may not increase the amount of carbon stored, it will reduce the risk of degradation (carbon loss).

The Garnaut Review update summarises estimates of potential land sector mitigation. Other than very large scale tree-planting, the biggest potential is in protecting and restoring biodiverse natural ecosystems: forests because they store carbon at high density, and rangelands because they are so extensive. Protecting and restoring biodiversity will make an important contribution

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to climate change as well as meeting other environmental objectives. This will only be achieved if substantial new funding is available for landholders including Indigenous communities.

Mechanisms

The policy question is: what is the best way to meet Australia's international obligations to limit emissions and protect sinks and reservoirs in the land sector, consistent with the need to maintain biodiversity (including meeting obligations under the Convention on Biological Diversity), farming land and water?

The government's response is the CFI. This is an incentive scheme that sets up the framework to create carbon credits in the landscape for emissions avoided or additional carbon sequestered (there is no emissions penalty). The value of the credits depends on the market price which in turn depends on the structure of the emissions tax/trading scheme. Participation would be voluntary.

An alternative way of implementing an incentive scheme is through a fund. In this case, the payment received for a project or activity would depend on the design of the fund, its priorities and its size. Like the CFI, participation would be voluntary and there would be no emission penalties in the landscape sector.

The size of either scheme ultimately depends on the proportion of the revenue from a tax/trading scheme going to the landscape sector. In the case of the CFI this could either be through allowing liable entities to buy landscape carbon credits directly (probably up to some capped level) and/or by creating an authority to buy landscape carbon credits with a proportion of the revenue from the tax/trading scheme (Garnaut has proposed both mechanisms). In the case of a fund, a proportion of the tax/trading scheme revenue would simply be allocated to the authority responsible for its management.

Focusing particularly on biodiversity, where the biggest opportunities for mitigation and obligations for protection lie, the advantages of a fund over the CFI include:

1. Funding can be directed to biodiversity priorities rather than biodiversity being a secondary consideration in a market for carbon sequestration and avoided emissions.
2. Eligibility for funding can be determined by the structure and priorities of the fund, not by the 'additionality' requirements of emissions trading or whether a particular activity is Kyoto-compliant. Those who have already moved to protect biodiversity, for example through covenants and Indigenous Protected Areas, would be eligible as would those legally prevented from land clearing. Marine as well as terrestrial biodiversity could be funded.
3. The amount of funding for the landscape sector can be determined as a matter of policy not price.
4. If CFI land sector offsets are admitted to the fixed price phase of the tax/trading scheme, revenue will go proponents rather than to the government, creating a budget risk for the government.
5. A fund can be made much simpler and more attractive for participants than a trading scheme.
6. The potential deadening effect of the CFI on new land protection legislation can be avoided. Under the CFI, governments are unlikely to introduce land protection legislation that might impinge the ability of landholders to claim 'additionality'.
7. Abatement from biodiversity stewardship and restoration would be additional to, not instead of, that achieved through the tax/trading scheme if liable entities were allowed to buy landscape credits.
8. The potential for perverse outcomes is much reduced.

Revenue

There has been little discussion about the amount of revenue that should be directed into the landscape sector. Garnaut considers that it should be brought fully into the trading scheme, meaning switching from the incentive scheme represented by the CFI to a system where emissions are priced. In the interim, he proposes that liable entities could buy credits for Kyoto compliant activities up to an initial cap of 6% rising to 10% in 2020. For non-Kyoto activities an authority should be established to buy credits, initially with 2% of revenue from the tax/trading scheme, rising to 4% in 2020. He gives no rationale for these numbers.

There are two big unknowns at the moment: the outcomes of international climate negotiations which will determine targets and the accounting framework (specifically which sectors are counted towards any target); and the linkage, if any, between land sector abatement and the emissions tax/trading scheme which will determine how much money goes to the land sector. In the land sector, policies to meet climate objectives will to a significant extent also meet a range of other environmental and social objectives. They should aim to capture a large part of the potentially available abatement through:

- protecting and restoring natural ecosystems so that they return close to their long term natural carbon carrying capacity;
- increasing the long-term carbon carrying capacity of agricultural ecosystems consistent with their primary use;
- reducing non CO₂ greenhouse gases from sources such as fire, soil management etc.

Large scale tree-planting is not supported (see attachment 1).

The government notes that 23% of Australia's emissions are from the land sector. Purely from a climate perspective, the mitigation task in the landscape sector includes ongoing ecosystem management to maintain and restore carbon stocks as well as emission reduction. Funding allocated should be commensurate with the sector's importance for the mitigation effort; on this basis, at least 20% of tax/trading revenue should be allocated to biodiversity and agricultural land management.

From a biodiversity perspective, the funding backlog is huge but largely unquantified. One indicator is that in 2009 applications for Caring for our Country grants exceeded \$3.4 billion when the available funding was \$450 million. Clearly the public is willing and ready to undertake this kind of work. Indigenous Protected Areas are particularly in need of investment.

Recommendations

1. At least 20% of the revenue from the tax/trading scheme should be allocated to biodiversity and land management (including for research).
2. An independent authority (or authorities) should be established to manage and distribute the funding, which should be additional to the normal budgetary allocation for these purposes. A review should determine the best way to structure and manage the fund/s.
3. The CFI should provide the framework for participation by Australian landholders in voluntary carbon markets.

Attachment 1. Selected CFI issues

1. Native forest protection

Through the CFI the government is clearly acknowledging for the first time that protecting native forests from logging, as well as clearing, benefits the climate by reducing emissions and enhancing carbon sequestration. These activities are eligible to create carbon credits under the scheme.

Ending industrial scale native forest logging is the biggest single opportunity for abatement in the landscape sector (in the order of tens of millions of tonnes of CO₂ per annum through reducing emissions and securing sequestration). This activity occurs predominantly on public land where it is carried out by a small number of state government forestry agencies under commonwealth-state regional forest agreements. Encouraging these agencies to participate in a carbon market is a bizarre way to bring in a new government policy. It would be much cheaper and more effective to harness the abatement in state forests through a negotiated transition strategy for affected workers and industries, coupled with a native forest restoration program.

There is urgency to settle the native forest logging issue because the declining market for woodchips is causing state forestry agencies to search for alternative uses for native forest wood including biomass burning to generate electricity, wood pellets, and other biomass products such as rayon. Submissions to the House Inquiry into the Australian Forestry Industry which bear on future plans for public native forests, and potentially the CFI, should be published as a matter of urgency.

Native forest protection projects. The CFI creates a special class of projects to protect native forests from clearing or 'clear felling'. There are two issues:

- why does a native forest protection project only cover 'clear felling' and not harvesting of all kinds (s 5)?
- what is the difference between an 'abatement amount' (applies to sequestration projects other than native forest protection projects) and a 'sequestration amount' (applies to native forest protection projects) (Part 2)?

2. Plantations

Plantations on previously cleared land are already Kyoto-compliant and if permitted to participate in a compliance scheme are likely to be one of the first options taken up. CSIRO research reportedly shows that large food-producing areas of the Murray Darling Basin could be converted to carbon sink forests at relatively low carbon prices (Sydney Morning Herald, 5 April 2011). This potential may be exacerbated because proponents can create financially engineered plantation investment products that would be eligible for:

- tax advantages under Managed Investment Schemes provided the purpose of the scheme is for establishing and tending trees for felling;
- carbon credits through the CFI provided net levels of sequestration are maintained on land in the project;
- renewable energy certificates if the plantation is categorised as an 'energy crop' or used for a purpose eligible to create wood waste.

The NSW government CFI submission points to likelihood that these schemes would be structured to ensure that as much market risk as possible is borne by third party investors who may not be properly informed.

If the CFI contributes to creating a new incentive for large-scale tree planting, similar to previous MIS schemes, state and local land management authorities will be ill-equipped to deal with the impacts. Both the future use of farming land and the integrity of the CFI would be affected.

3. Methodology

Estimation methodologies are required to 'not be inconsistent with' the methods set out in the National Inventory Report (NIR) (s133(1)(c)). For much of the land sector, including forests and grasslands, these methods are currently Tier 2 meaning they are not spatially explicit. The requirement for a methodology to be 'measurable' and 'capable of being verified' (s133(1)(b)) appears to conflict with the requirement for it to be 'not inconsistent with' the NIR methodology. Furthermore, there is evidence that the methodology used to estimate carbon densities in native forests considerably under-estimates the actual amount of carbon in some forests.² This is an important issue in a compliance scheme because estimation of abatement quantities in the land sector will generally be statistically less reliable than in the fossil carbon sector, yet the credits created are interchangeable.

² Keith H., Mackey B., Berry S., Lindenmayer, D. and Gibbons P. (2010) Estimating carbon carrying capacity in natural forest ecosystems across heterogeneous landscapes: addressing sources of error. *Global Change Biology* doi: 10.1111/j.1365-2486.2009.02146.x

Keith K, Mackey B. and Lindenmayer D. (2009) Re-evaluation of forest biomass carbon stocks and lessons from the world's most carbon-dense forests. PNAS 106, 11635-11640.

Attachment 2. Comparison of a Biodiversity and Climate Fund with the CFI and emissions tax/trading

	Biodiversity and Climate Fund	CFI plus emissions tax/trading
Funding priorities	Biodiversity priorities	Carbon priorities and the commercial agility of the proponent
Funding allocation	Based on the cost of an activity	Based on the estimated quantity of carbon sequestered or emissions avoided each year
Types of projects	Can cover activities that maintain or increase biodiversity resilience and carbon density through ecosystem stewardship as well as restoration, i.e. not limited to carbon fluxes	Priority to activities that maximise the rate of increase of carbon in the landscape and avoid loss due to human action (carbon stewardship is not covered)
Eligible land	Potentially all land and vegetated marine ecosystems	Excludes carbon already protected by legislation, including in protected areas on public land, covenanted private land, Indigenous Protected Areas, vegetation protected by clearing controls
Most likely participants	Landholders and managers, including Indigenous groups and community groups	Compliance market: large scale commercial carbon aggregators (including state forestry agencies), especially those able to provide tax advantages to investors (such as through MIS schemes) or which have a pre-existing relationship with companies that have emission liabilities
Which market		Compliance market: Kyoto compliant projects (currently reforestation/afforestation, avoided non-CO ₂ emissions; potentially 'forest management' including avoided native forest logging) Voluntary market: non Kyoto projects including carbon sequestration in non-forest natural ecosystems, soil etc
Access by new entrants	Projects can be approved for defined activities or defined periods freeing up funding for new entrants as projects are completed	If the scheme is capped (to prevent erosion of government revenue through reduced emissions liability of fossil carbon companies), the space for new entrants will depend on whether the scheme expands. This is because, once a project is approved, sequestration continues as the vegetation grows, and with it eligibility to generate credits for the additional carbon sequestered each year.
Native forest logging ³	Government policy to reduce or end logging in public native forests can be implemented with transition funding for workers and industries coupled with forest restoration programs.	State forestry agencies are likely to become large-scale carbon aggregators with the power to control the market if 'forest management' becomes Kyoto compliant.
Quality of credits	If created by a Fund, it can take a very conservative approach effectively weighting credits according to their reliability	The reliability of credits from avoided emissions and additional sequestration in the land sector is likely to be lower than for fossil carbon emissions due to temporal and spatial variability (notwithstanding the 5% risk of reversal buffer for sequestration projects).
Extent of land sector abatement not taken up	Depends mainly on the size of the fund and its priorities. It also depends on whether complementary measures to end/reduce native forest clearing or logging are introduced.	Depends on overall emission reduction targets, carbon price, scheme complexity (limiting participation), and whether the amount of 'offsets' in the tax/trading scheme is capped. Complementary measures are likely to be resisted because they will alter eligibility to participate in the market.

³ Reducing or ending native forest logging is the biggest source of market-ready carbon credits. On public land, Forestry Tasmania, VicForests, Forests NSW and the WA Dept of Environment and Conservation control the bulk of potential credits. They are unlikely to enter the voluntary market but if 'forest management' becomes a Kyoto-compliant activity, they can transform themselves into 'carbon aggregators' and with the volume of credits at their disposal are likely to dominate the market.