SUBMISSION TO SENATE STANDING COMMITTEE ON RURAL AND REGIONAL AFFAIRS AND TRANSPORT

Inquiry into the Implementation, Operation and Administration of the Legislation Underpinning Carbon Sink Forests

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1. INTRODUCTION

1.1 Purpose of Document

The purpose of this document is to provide a submission for the *Senate Enquiry Inquiry into the Implementation, Operation and Administration of the Legislation Underpinning Carbon Sink Forests*. In particular it is our intention to bring to the attention of the committee the various forms of forest sinks that exist for the purpose of sequestering carbon, and to ensure that these models are all taken into consideration for any future legislation or policy.

2. FOREST SINK MODELS

A forest sink is defined as any forests that are "Kyoto-consistent". Kyoto Consistent forests are;

- Human assisted vegetation (subject to interpretation);
- Must have capacity to achieve minimum levels of crown cover (20%) and height at maturity (2 metres);
- Must be in areas of greater than 0.2 Ha and at least 10 metres wide; and
- Must not have been forested on the 31st of December 1989

There are a number of methods and models implemented to produce forest sinks within Australia. This can include single species high density forest plantations and a variety of various intensity rehabilitation methods aiming for more natural communities.

We propose that three general forest sink models be considered as eligible for generation of carbon credits under carbon trading legislation. These include:

- Forest Plantations – Monocultures of native or exotic species;
- Rehabilitation and Revegetation; and
- Assisted natural regeneration.

2.1 Forest Plantations

Forest plantations generally consist of a small number of species that are durable and fast growing. These species are then planted in high density formations and managed accordingly. This model of forest sink can have significant carbon sequestration success and is considered cost effective due to the limit of resources required and large amounts of carbon sequestration. However it should be noted that the biodiversity and conservation outcomes of such plantings can be extremely limited, particularly where the plantation type used is not endemic to the area.

2.2 Rehabilitation with Supplementary Planting

Rehabilitation and bush regeneration are now well documented, particularly within catchments throughout eastern Australia. Often this involves identifying a specific planting palette and monitoring and maintenance regimes. Such projects generally attempt to provide a more natural distribution of flora species, beneficial for biodiversity and fauna habitat. As this model aims to restore a natural condition, plantings are usually at a lower density with canopy plantings (large trees) sparser than those of plantations models. As such, the carbon sequestration potential is less; however, the biodiversity values and conservation contributions are greater. This method is also significantly more expensive to implement due to the labour and resource costs attributed.

2.3 Management of Land to Assist Natural Regeneration

The ecology of Australian vegetation communities and their adaptation to regular fire events in a natural system has allowed them to have rapid recovery potential. It is considered that where land is Kyoto Consistent, forest sinks established via assisted natural regeneration should be eligible as Kyoto consistent forests and should be eligible for the generation of tradeable carbon credits.

Acceptable measures for assisting natural regeneration should include:

- Removal of domestic grazing;
- Implementation of Bushfire Management guidelines to restore a more natural relative species dominance; and
- Implementation of weed and pest control measures.

Forest sinks generated through the implementation of these measures must be considered as meeting the definition of a Kyoto Consistent Forest Sink. This model is considered to have the best conservation and environmental outcomes as it utilises natural recovery habits of Australian species and draws from the natural seed bank existing within the area. This method is often the most labour intensive and expensive method to implement and has a slow carbon sequestration rate. However over the course of a Kyoto consistent period (100 years of protection) this method will still sequester significant portions of carbon whilst having important conservation and biodiversity benefits.

3. SUMMARY

This submission was made to the *Senate Inquiry into the Implementation, Operation and Administration of the Legislation Underpinning Carbon Sink Forests*. It has summarised three models for the generation of forest sinks and therefore carbon credits which it is considered should be included in any legislation or policy pertaining to the senate enquiry.

These models include:

1. Forest plantations
2. Intense native rehabilitation; and
3. Management of land to assist natural regeneration.

All of the models can be considered as human assisted vegetation, and under the assumption that the vegetation community to be targeted and the land meet the following criteria;

- Must have capacity to achieve minimum levels of crown cover (20%) and height at maturity (2 metres);
- Must be in areas of greater than 0.2 Ha and at least 10 metres wide; and
- Must not have been forested on the 31st of December 1989.

Then these models are considered to be Kyoto consistent. On this basis if implemented correctly, all three models must be considered satisfactory Carbon Sink Forests under future legislation.