

Our Ref: 08/309

Committee Secretary
Senate Rural and Regional Affairs and Transport Committee
Department of the Senate
PO Box 6100
Parliament House
Canberra ACT 2600
Australia

31 July 2008

The Review Secretariat,

Re: CSIRO's Submission to the Inquiry into the Implementation, Operation and Administration of the Legislation Underpinning Carbon Sink Forests

I thank you for the opportunity to provide comment to the Inquiry into the Implementation, Operation and Administration of the Legislation Underpinning Carbon Sink Forests. The attached comments are written with an understanding that CSIRO is actively undertaking research of particular relevance to carbon sequestration strategies.

CSIRO is of a view that new forests can make an important contribution to decreasing Australia's net Greenhouse emissions, whilst providing many other benefits beyond carbon sequestration, including biodiversity enhancement and protection as well as salinity mitigation.

Australia needs diverse and innovative approaches to effectively offset our carbon emissions. CSIRO's research have shown that under ideal conditions, sufficient areas of new forests can offset approximately 25% of Australia's carbon emissions.

Importantly, CSIRO research does not predict where future biosequestration plantations might be established. Furthermore, additional factors outside the parameters of CSIRO research such as market demand, product price and financial investment models, land availability, price and willingness to sell, water policy etc. need to be considered when making a decision on the development of carbon sink forests.

Our detailed comments are attached. Please do not hesitate to contact me should you require any further information.

Yours sincerely



Mr Peter King
Senior Adviser, CSIRO Government Relations



CSIRO Submission 08/309

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

July 2008

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We offer the following comments with respect to this legislation:

1. New forests can make an important contribution to decreasing Australia's net greenhouse gas emissions. For example, we have estimated that 9 million hectares of new forests in rainfall zones less than 800 mm would offset about 25% of Australia's current emissions. These forests will provide this offset while they are actively growing (many decades) after which time they will cease to sequester additional carbon. In reality, large areas of new forests would, after many decades, be subject to the same cycles of death and renewal as natural forests and would reach an average amount of carbon sequestration that is somewhat lower than the theoretical maximum.
2. Many other benefits can be derived from new forests in agricultural landscapes beyond increased carbon sequestration, including:
 - a. Biodiversity enhancement and protection
 - b. Erosion control
 - c. Salinity mitigation
 - d. On-farm benefits such as shelter for stock, wind breaks and erosion control and water management. In some cases these may need to be balanced against potential loss of agricultural production due to forest competition.
 - e. Regional economic development.
3. A carbon market, whether through a Carbon Pollution Reduction Scheme or other legislation, is a mechanism that can be used to drive other benefits and we are seeing this in the business models of some of the forest-based carbon-offset companies.
4. CSIRO has modelled rates of carbon sequestration for various forestry species across Australia and net benefits and impacts on the environment. The aim has been to identify regional opportunities for various forms of forestry and where further ground-truthing is required. This analysis shows that there may be significant land areas where trees can be re-introduced offering carbon sequestration potential, a positive biodiversity contribution and with minimal impact on water supply.
5. It is difficult to forecast exactly where future biosequestration plantings will be established. Ultimately, new forests are established according to a range of factors that are difficult to predict, including market demand, product price and financial investment models, land availability, price and willingness to sell, water policy, other intersecting policies and land use regulations, social and community attitudes. Thus, we have confined our analyses to 'scenarios' to illustrate the way in which under-pinning science can be used to explore options for new forest developments.
6. Water policies are being developed under the terms of the National Water Initiative that will regulate plantation expansion as users of water for all catchments that are near or over full allocation.
7. Decisions and policy regulation for the establishment of new forests can account for the full range of benefits and costs that accrue to society and the environment. Quantifying those benefits and costs can be under-pinned by scientific evaluation and to which CSIRO is focussing some effort.