australian network of environmental defender's offices

Submission to the Inquiry into the implementation, operation and administration of the Legislation underpinning carbon sink forests.

31 July 2008

The Australian Network of Environmental Defender's Offices (ANEDO) consists of nine independently constituted and managed community environmental law centres located in each State and Territory of Australia.

Each EDO is dedicated to protecting the environment in the public interest. EDOs provide legal representation and advice, take an active role in environmental law reform and policy formulation, and offer a significant education program designed to facilitate public participation in environmental decision making.

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Introduction

The Australian Network of Environmental Defender's Offices Inc (ANEDO) is a network of 9 community legal centres in each state and territory, specialising in public interest environmental law and policy. ANEDO welcomes the opportunity to provide comment to the *Inquiry into the implementation, operation and administration of the Legislation underpinning carbon sink forests.*

ANEDO submits that a range of measures are urgently required to abate Australia's greenhouse gas emissions, consistent with our international obligations and our national interest. Proper legislative recognition of carbon sequestration by forests is essential, and a rigorous framework with incentives for good environmental management should be established. The *Tax Laws Amendment (2008 MEASURES No. 1) Bill 2008* (the Bill) does not provide the necessary comprehensive framework, has a very narrow focus, and certainly does not guarantee that permanent carbon sequestration will actually occur. As a national network with regional offices, we are aware of the environmental impacts that have accompanied the rapid increase in plantation forests (or tree plantations) across Australia over the past decade, especially as a result of the incentives available to Forestry Managed Investment Schemes (MISs) under the *Income Tax Assessment Act 1997* (ITAA 1997). We are concerned that these negative environmental impacts will increase with the provision of tax incentives for the establishment of plantation forests as carbon sinks, while positive environmental outcomes (carbon storage) may not be achieved.

This submission identifies a number of flaws in the Bill and makes recommendations for reform. The key areas of concern for ANEDO are:

- **Need for a comprehensive approach**
- **Permanency**
- **Sustainability criteria**
- **Transparency and accountability**

1. Need for a comprehensive approach

Abatement of greenhouse gas emissions is not something that can be effectively addressed by ad hoc taxation law amendments. A comprehensive legislative scheme is needed to **a)** establish appropriate policy priorities such as creating incentives for good environmental management, and **b)** regulating the current voluntary offset market for plantations.

a) Establish appropriate policy priorities

As indicated above, ANEDO supports the legislative recognition of carbon sequestration through environmentally sustainable forests.

However, in terms of broad policy to reduce greenhouse gas emissions, aiming to reduce greenhouse emissions through planting new plantations involves taking a large gamble that carbon will be sequestered in trees over a century to offset current emissions. There is a high level of uncertainty that this will occur. It is clear that the most effective way to reduce emissions is by reducing consumption and increasing energy efficiency. Furthermore, new plantations are unlikely to deliver the urgently required short-term abatement as where they actually succeed in becoming effective carbon sinks, they do not usually do so for at least 10 years.[1]

The aim of the Bill is to encourage establishment of carbon sink forests now by providing tax deductibility for capital expenditure for establishment of trees in carbon sink forests. This provides incentives for new plantations that provide immediate deductibility in the period 2007-08 to 2011-12.

ANEDO submits that the legislative reform is misdirected. The priority of establishing a legislative framework to encourage genuine carbon sequestration through sound land management should be on providing incentives to manage existing carbon stores. This would be as a complementary measure in addition to primary greenhouse gas reduction measures relating to reducing consumption and increasing energy efficiency etc.

The focus of a legislative scheme relating to carbon sinks should be on providing incentives for private landholders to manage the existing carbon stores – such as existing native forests and remnants - and in return receive payment for the ecosystem services, including carbon sequestration, that benefit the catchment and broader community.

In contrast, subsidising new monoculture plantations does not harness the broader benefits of conserving and managing existing and verifiable carbon stores. In fact, a proliferation of new monoculture plantations may well have negative impacts on rural communities and the environment, for example in relation to water diversion, biodiversity loss, and conversion of agricultural land. These issues are discussed further below.

b) Regulating the current voluntary offset market for plantations

A number of operators, including Gunns, Origin Energy, NSW Forests and Landcare,[2] already participate in the voluntary carbon market, offering private landowners incentives for planting (or not cutting down existing forests) in return for annual payments for the carbon credits obtained either through voluntary schemes such as Greenfleet, or through their purchase of NSW Greenhouse Abatement Certificates or equivalent programs in

[1] The EDO NSW has undertaken a scientific review of Plantations and Carbon Storage. We would be happy to provide this to the Inquiry if requested.
[2] For the details of all carbon offset providers in Australia, see http://www.global.rmit.edu.au/CarbonOffsets2007.pdf.

other states.[3] There are currently around 4,000 ha of private forests in NSW devoted to so-called environmental plantations.[4] To qualify for NGACs in NSW, land must not have been cleared since 1990; however, there is also a requirement that "the carbon will remain onsite for at least 100 years"[5] – a requirement which is impossible to enforce. The operation of the voluntary market involving plantations to date has therefore highlighted a range of implementation and veracity concerns. [6] A comprehensive legislative scheme is needed to ensure appropriate regulatory safeguards are put in place. This is particularly important in the lead up to establishing a robust and credible Emissions Trading Scheme.

ANEDO recommends that Schedule 3 of the* Tax Laws Amendment (2008 Measures No. 1) Act 2008 *should be repealed. We recommend that a broader review be undertaken to establish a more comprehensive legislative scheme. The Commonwealth, states and territories should convene as a matter of urgency to adopt a national framework for carbon sink tree plantations to ensure that they perform their intended function, and provide incentives for good land management and payment for ecosystem services, including carbon sequestration while mitigating the associated negative environmental, social and economic impacts of plantations.

2. Permanency

In relation to the specifics of the Bill, a key concern for ANEDO relates to the permanency of the new plantations, and whether the carbon is sequestered permanently. Neither the Bill, the Explanatory Memorandum, nor the Guidelines provide that any trees planted under the scheme are to remain a 'carbon sink forest' for any sustained period of time. There is no requirement that the trees planted to establish a carbon sink forest reach an age (ie, at least 10-20 years) to significantly contribute to the purpose for which they were supposedly planted – to provide a carbon store.

The "establishment expenditure will be immediately deductible for trees established in carbon sink forests in the 2007-08 to 2011-12 income years (inclusive)"[7]. It is therefore currently possible for an entity to plant trees, immediately obtain the tax deduction and not be concerned whether they succeed in growing or not. Additionally, there are no provisions preventing the land set aside for carbon sink forests to be sold on at a later stage and cleared.

According to the scheme, "establishment occurs when the trees are planted, grown from seed or deliberately regenerated from natural seed sources in their long-term growing

[3] For an overview of this industry, see www.greenhouse.gov.au/nrm/publications/pubs/sinks-landholders.pdf .
[4] See http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0012/223311/public-register-20May08.pdf. These are complying plantations established under sections 13 or 14 of the *Plantations and Reafforestation Act 1999*.
[5] See https://wic004tv.server-secure.com/vs154616_secure/resources/CarbonSMARTInfosheets_overview.pdf.
[6] Concerns have been raised, for example in Tasmania that some forests in Tasmania "had been clear felled and burnt prior to conversion to tree farms." See http://www.crikey.com.au/Politics/20070220-The-dark-side-of-carbon-trading.html.
[7] Para 3.6 of the Explanatory Memorandum.

medium, in the ground in a permanent way"[8]. That is, the plantation is considered to be established, for taxation purposes, as soon as the seeds go into the ground. This means that the tax deduction may be granted even if the seeds fail to grow and very little carbon is actually sequestered. Furthermore, the Bill allows some deductions even where the forest is destroyed before full deductions are claimed.

The Bill includes a weak test for whether a carbon sink forest will actually achieve the goal of sequestering carbon. The "more likely than not"[9] test that the planted trees will attain a crown cover of 20% or more and reach a height of two meters is insufficient. It does not encourage the planting of species indigenous to the area, nor does it provide a strong incentive for the entity to ensure the trees successfully establish a carbon sink forest.

Under the Bill, therefore there appears to be nothing to stop a landowner or operator establishing a carbon sink tree plantation, claiming the tax deduction for its establishment in the first year, and then allowing it to die. Indeed, it appears that another deduction could be claimed in a subsequent year, even if the trees die and thereby increase Australia's greenhouse gas emissions. Similarly, there is nothing to stop landowners or operators from clearing forests which may be up to 18 years old in 2008 – in other words, nearly mature - or "swamps" (ie, wetlands, which are invaluable carbon sinks in themselves), in order to plant tree plantations as carbon sinks. This creates a perverse incentive.

In contrast, as noted above, focusing on conserving carbon sequestered in existing established native forests has far greater certainty. While both native forests and plantations are subject to risks such as drought and bushfire, at least the carbon sequestered in established forests can be accounted for and is not simply hypothetical.

The scheme is also silent on in perpetuity management issues such as: how future land holders are bound by any land management conditions, and what happens when leases expire.

ANEDO recommends that a legislative scheme must include clear provisions that carbon sink forests are to be managed for carbon sequestration purposes in the long term. For example, the legislation should stipulate that:

- ***Tree species selected for the majority of the planting must have an expected lifespan of at least 100 years.***
- ***No clearing of trees of any age should be permitted (as opposed to no clearing of land with tree cover in 1990) (Schedule 3, item 6, paragraph 40-1010(1)(g)).***
- ***There should be incentives to ensure that trees are maintained for up to 100 years - eg, by the deductions for expenditure being spread out over this period.***

[8] Para 3.34 of the Explanatory Memorandum.
[9] See section 40-1010(2).

3. Sustainability criteria

We note that the Minister made *Environmental and Natural Resource Management Guidelines in relation to the establishment of trees for the purposes of Carbon Sequestration* (the Guidelines) on 2nd July 2008.

There is now a considerable body of literature detailing the environmental impacts of plantation forests in Australia. These impacts (summarised in the **Appendix**), which largely apply also to carbon sink tree plantations, are not effectively dealt with in the Guidelines issued by the Minister. The Guidelines rely on "regionally applicable best practice approaches for achieving multiple land and water environmental benefits" and "regional natural resource management plans and water sharing plans." This effectively absolves the Commonwealth of responsibility for the environmental performance of carbon sink tree forests established as a direct consequence of the change to Commonwealth taxation legislation.

Relying on State and Territory regulation is ineffective. For example, EDO NSW working with community groups on the North Coast has identified a number of problems with the current state regulation of plantations, including that the legislation is weak (for example, by allowing native vegetation to be cleared, failing to protect streamflows, biodiversity or prime agricultural land, and failing to effectively prevent air, soil and water pollution from pesticide and herbicide spraying from killing native plants and animals). [10] The problems are compounded by poor monitoring and enforcement of the legislation by the relevant government authorities.[11]

While legislation obviously differs according to the jurisdiction, ANEDO believes that the problems in other states and territories are similar to those in NSW. There is therefore no reason to believe that a growth in the area of land devoted to tree plantations for carbon sinks will lead to any improvement in their environmental performance; indeed, without an additional allocation of resources by the Commonwealth, the reverse is likely to be the case.

Further, it appears that some jurisdictions do not specifically regulate plantations established as carbon sinks. There is therefore nothing to suggest that carbon sink forests will be better managed than other tree plantations. It is therefore premature to introduce Commonwealth taxation legislation before a national framework has been established to ensure they fulfil their intended purpose and do not cause ancillary environmental harm in the pursuit of carbon sequestration. ANEDO recommends that a national framework be set up before or at least in tandem with the proposed Commonwealth taxation legislation.

Best practice standards and mandatory sustainability criteria should therefore be enshrined in comprehensive Commonwealth legislation. There will be very little environmental benefit, both in terms of carbon sequestration and broader environmental and community outcomes, if best practice standards and sustainability criteria are not applied to carbon sink forests.

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[10] See the *Plantations and Reafforestation Act* and Code and the *Pesticides Act NSW*.

[11] There have, for instance, been no prosecutions in NSW for non-compliance with the PRAA, in spite of extensive evidence of breaches.

The Bill currently provides no detail requiring assessment of water diversion, and in fact would still allow a new plantation to go ahead even in a catchment that has been identified as over allocated.[12] This would have serious detrimental impacts on the environment and other land users in the catchment. Similarly, as noted, the Bill does not include any requirements as to using species of trees indigenous to the relevant local area. Local native species can have benefits in terms of using less water and supporting native biodiversity.

In addition to environmental impacts, application of the principles of ecologically sustainable development also requires consideration of social and economic impacts. There is valid concern in some rural communities that plantations will displace agricultural uses and income from new plantations may not be invested or spent locally. Plantations on land previously used for pasture or crops results in lower local income and employment and a loss of social capital as well as agricultural production.

ANEDO recommends that best practice standards and sustainability criteria be set out in legislation and any proposed new carbon sink forest must meet the criteria. It is insufficient to have important criteria delegated to Guidelines. The legislation should require that the scheme is implemented in accordance with the principles of ecologically sustainable development. Specific criteria should be developed including:

- ***Environmental performance should be in accordance with the Forest Stewardship Council - rather than the Australian Forestry Standard, which has fewer environmental safeguards.***
- ***Comprehensive environmental impact assessment must be undertaken, including an assessment of impacts on biodiversity and water diversion within the catchment of the proposed plantation.***
- ***Parameters for the establishment of such plantations should be set (eg, relating to suitable locations – ie, with regard to latitude and rainfall - and species selection).***
- ***The deduction should only be available for mixed species woodlots.***
- ***No "draining of swamps" should be permitted (Schedule 3, item 6, section 40-1-20).***

4. Transparency and accountability

There is no public register that details the areas involved in the scheme. This appears to be an important oversight, for if an entity establishes a forest to sequester carbon, it is essential that the information regarding the location and purpose for which the forest was established is made publicly available. This is consistent with broader government policy in relation to reporting and transparency in the lead up to establishing an emissions trading scheme.[13] It is essential for credibility and accountability of the scheme that there is clear public information on carbon sinks.

[12] Guidelines, point 2.
[13] See the *National Greenhouse and Energy Reporting Act* 2007.

To ensure transparency and accountability, the Bill should include review provisions, requirements for independent auditing of carbon sink forests to assess to what extent they are meeting the goal of carbon sequestration, and reporting requirements for sink managers.

Furthermore, the penalty provisions are very limited.[14] We note the Bill provides that trees may not be planted for the purposes of felling, however, there is no framework for monitoring compliance and it seems that if the trees are cut down at a later date, there is no requirement to pay back any tax deductions received etc.

ANEDO recommends that a comprehensive legislative framework be established that includes a public register of information about carbon sinks, provisions for review and independent audit of carbon sinks, and compliance and penalty provisions. An independent national compliance and monitoring body should be funded by beneficiaries of the taxation incentive as an annual levy.

Conclusion

ANEDO does not believe that making tax deductions available for carbon sink tree plantations under the proposed *Tax Laws Amendment (2008 MEASURES No. 1) Bill 2008* is an effective way of reducing Australia's greenhouse gas emissions. In the absence of a comprehensive legislative scheme to ensure that such plantations will have a higher standard of environmental performance than existing tree plantations established as MISs under the ITAA 1997 (and in view of extensive evidence of poor enforcement and non-compliance of these existing tree plantations with relevant State and territory environmental legislation), carbon sink tree plantations may very likely result in significant environmental harm. Such harm would stem from the potential destruction of native vegetation and consequent biodiversity loss; reduced streamflows; and potential for increased pesticide and herbicide use. New plantations established as a result of the taxation amendments may also result in greater negative social and economic impacts as noted. Ad hoc taxation amendments are inadequate to properly ensure carbon forest sinks achieve the goal of greenhouse gas abatement, and a comprehensive legislative scheme, complementary to current policy and legislative developments,[15] is required.

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[14] See Sec 40-1035

[15] See: Carbon Pollution Reduction Scheme 2008.

APPENDIX
ENVIRONMENTAL IMPACTS OF TREE PLANTATIONS

- *Water usage:* plantations of young eucalypts in particular use substantially more water than grassland or pasture crops. This additional water is sourced from interception of runoff from rainfall events and groundwater in some areas. Reductions in runoff as a result of plantation establishment have been shown to peak at 10-20 years after planting and then decrease until the rotation ends. The change in runoff as a result of establishment of plantations will depend on the soil type, typography, position of a plantation in the landscape and the annual distribution of rainfall, but may be up to around 30%.[16]
- *Chemical use:* the replacement of biodiverse vegetation communities with a monoculture results in the need for the use of pesticides, herbicides and fertilisers (including Simazine, Rogor, Atrazine and 1080), some of which destroy native plants and animals as well as weeds and pests, and which pollute waterways. The aerial spraying of pesticides is probably the greatest problem. For instance, a 2004 report commissioned by oyster farmers in Tasmania found that "aerial spraying of private forestry plantations on Tasmania's east coast was linked to a major oyster kill early this year, and possibly to the mystery illness which is devastating the Tasmanian devil population."[17] In June 2008 Federal MP for Page Janelle Saffin called for an end to aerial spraying of tree plantations. She cited the use of chemicals which have been banned in the USA and in the European Union and claimed that chemicals drift into the Clarence River and that spraying was happening next to a school in the Clarence Valley.[18]
- *Destruction of native vegetation*: in Tasmania, around 38 000ha of native vegetation was cleared between 1999 and 2002, with some of this area converted to plantations.[19] Clearing for this purpose is prohibited in NSW, except that the legislation allows "irregular" areas of up to 1 ha of native vegetation and habitat trees in excess of 1 per ha to be removed for plantations.[20]
- *Biodiversity*: The destruction of old growth or regrowth native forests for plantations leads to a loss of biodiversity.[21] However, native tree plantations may provide some biodiversity benefits if they are established on cleared farmland.[22]

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[16] M Parsons, I Frakes, A Gerrand, Science for Decision Makers: Plantations and Water Use, Bureau of Rural Sciences, 2007: http://affashop.gov.au/product.asp?prodid=13798; Benyon, R.G., Theiveyanathan, S. and Doody, T.M. (2006) Impacts of tree plantations on groundwater in south-eastern Australia. *Australian Journal of Botany* 54:181-192; Hopkin (2005) 'Tree planting not always green' *Nature.com* NatureNews Available online at http://www.nature.com [Date accessed 19/06/08]

[17] Scammell, M. (2004) Environmental Problems Georges Bay, Tasmania. Available online at http://www.tfic.com.au/domino/tfic/tficweb.nsf/vwTitle/07.04%20Scammell%20Report [Date accessed 30/7/2008]

[18] See http://www.janellesaffin.com.au/display_news.asp?id=53. For more detail, see John Edwards, A Critical Assessment of the Plantation Forest Industry, Clarence Environment Centre, 2008, 9 and 12-20: http://www.cec.org.au/local/Critical.Assessment.Plantation.Forestry/index.htm.

[19] See http://soer.justice.tas.gov.au/2003/recommendation/45/index.php.

[20] *Plantations and Reafforestation (Code) Regulation 2001*

[21] Stockstad, E. (2008) A second chance for rainforest biodiversity. *Science* 320:1436-1438; Salt, D., Lindenmayer, D. and Hobbs, R. (2004) 'Trees and Biodiversity: A guide for Australian farm forestry'. Agroforestry guideline series. Available online at http://www.rirdc.gov.au/reports/AFT/03-047sum.html [Date accessed 30/7/2008]; Lindenmayer, D. and Franklin (2002) Conserving Biodiversity: A comprehensive multiscaled approach *Island Press, Washington DC*

[22] Hartley, M. (2002) Rationale and methods for conserving biodiversity in plantation forests. *Forest Ecology and Management* 155:81-95; Loyn, R., McNabb, E., Macak, P. nad Noble, P. (2007) Eucalypt plantations as

- *Contribution to climate change*: a number of factors influence whether plantation forests will act as carbon sinks or sources, including the rotation period of the plantation (net accumulation of C in plantations does not occur for 10-20 years after plantation establishment due to the initial small size of trees and therefore small C pool in biomass, and the decrease in soil C with plantation establishment)[23]and the permanence of the plantation (permanence of the carbon sink provided by plantation forests may be compromised by failure through bushfire, attack by pests or drought. If the plantation fails i.e. the trees die, the plantation will become a source of carbon to the atmosphere).[24]
- *Viability*: Concerns have been raised that plantations are being established in marginal rainfall areas (less than 400-600 mm per year) and are likely to fail during droughts.[25]

habitat for birds on previously cleared farmland in south-eastern Australia. *Biological Conservation* 137(4):533-548

[23] Turner and Lambert (2000) 'Change in organic carbon in forest plantation soils in eastern Australia' *Forest ecology and management* 133:231-247

[24] Australian Greenhouse Office (2006) Planning Forest Sink Projects: A guide to forest sink planning, management and carbon accounting. *Department of Environment and Heritage* Available online at http://www.greenhouse.gov.au/nrm/publications/forestsinks-planning.html [Date accessed 31/7/2008]

[25] "In 2005 – 06 there was significant authorisation of plantations established for environmental goals, particularly in lower rainfall areas": http://www.planningplantations.com.au/assets/content/plantation_management/regulation_planning/nsw3.html. See also http://www.csiro.au/files/mediaRelease/mr2001/LowRainfallWood.htm.