

13 March 1998

The Committee Secretary
House of Representatives Standing Committee on Environment,
Recreation and the Arts
Parliament House
CANBERRA

Dear Sir

Inquiry into the regulatory arrangements for trading in greenhouse gas emissions

The National Association of Forest Industries welcomes the opportunity to contribute to the development of Australian government policies on greenhouse issues and achievement of Kyoto Protocol commitments. We appreciate that the issues surrounding greenhouse gas emissions are complex and that it will take considerable careful analysis and consultation to develop acceptable public policies for dealing with them. The main points that NAFI would like to make to the inquiry are:

- We appreciate that the Kyoto Protocol imposes obligations on Australian governments and industries and that these obligations may be met by both greenhouse gas emission abatement and by increasing the size of carbon stores.
- Any measures introduced by Australian governments to meet these obligations must be consistent with measures developed in other countries.
- Australia has substantial potential to develop forests that will play a role as carbon stores. Reforestation is worthwhile for a range of economic, social and environmental reasons, irrespective of their role as carbon stores. The forest industries and governments have jointly developed the strategy "Plantations for Australia - the 2020 vision" to capture these benefits.
- The National Greenhouse Gas Inventory and the assessment of sources and sinks are not dependent on the development of a system for carbon credit trading. NAFI is not at this stage promoting the development or adoption of such a system.
- There is also potential for the forest industries to contribute to greenhouse gas abatement by producing alternatives to fossil fuels. Research and development is required to achieve this potential.

The following submission outlines the Association's views on trading in greenhouse gas emissions, describes a model to assess greenhouse gas capture by forests and discusses our concerns with regulatory and market based approaches to these issues.

The forest industries are willing to be involved in further development of Australia's response to Kyoto Protocol commitments.

Yours Sincerely

Warren Lang
Deputy Executive Director

1. INTRODUCTION

This submission to the House of Representatives inquiry into regulatory requirements for trading in greenhouse emissions is presented by the National Association of Forest Industries. NAFI recognises that achievement of Kyoto Protocol commitments may impose a substantial economic cost on Australia. However, the Association believes that it also presents an opportunity to achieve substantial economic and environmental benefits consistent with National objectives.

2. THE FOREST INDUSTRIES

The National Association of Forest Industries represents companies and organisations that manage natural forests, establish and manage plantation forests, process timber and manufacture timber products for domestic and export markets.

The forest industries represent a substantial proportion of Australia's manufacturing industries. Together, we have an estimated annual turnover of around \$10 billion, approximately 1% of gross domestic product, and annual value added of around \$3 billion, representing some 4% of total manufacturing value added. Employment in the forest industries (as at August 1995) was around 82 500 people.

The forest industries draw timber resources from plantations and from a portion of Australia's native forests. The areas of plantations and native forests, and the areas from which timber may be harvested, are shown in the accompanying Table. These data were prepared by the National Forest Inventory and were published in Australia's First Approximation Report for the Montreal Process, June 1997.

Forest areas by tenure category (million ha)

Forest land tenure category	Gross area	Net harvestable area
Conservation reserves	17.6	nil
State forest	13.3	7.3
Other Crown land	15.6	2.9
Private land	42.0	n.d.
Leasehold land	66.1	n.d.
Plantations	1.0	1.0
Total forests, woodlands and plantations	156.9	11.3

n.d. = no data or insufficient data

In the context of developing Government policy for meeting greenhouse gas commitments, there are several points that NAFI would like to bring to the attention of the inquiry:

- The value of timber products imported into Australia exceeds the value of exports by around \$2 billion per year. This is because we export low value raw materials and import high value added manufactured products.
- Our potential to increase value adding processing and to compete on world markets would be improved if the scale of our forest resource was increased.
- The existing natural and plantation forests represent a large store of greenhouse gas. The carbon is held in above ground biomass, some of which is harvested periodically, and below ground biomass. The Bureau of Resource Sciences is currently developing an estimate of the amount of carbon held in Australia's plantations.
- Australia is one of few countries with the land base and technical knowledge to greatly increase the extent of its forest resources, mainly on cleared land. Despite these advantages, the current rate of plantation expansion is low. The reasons for this are addressed in "Plantations for Australia -The 2020 Vision", which is a strategy for plantation expansion agreed to by the forest industries and Governments. A copy of this document is enclosed with this submission.

The Plantations 2020 vision sets a goal of trebling Australia's plantation estate by 2020, a goal which is supported in the Prime Minister's response to the Kyoto Protocol "Safeguarding the future: Australia's response to climate change". As well as increasing the store of carbon, achieving that goal would substantially increase the sustainable volume of timber that may be harvested and substantially assist many of Australia's severe land degradation problems.

3. ABATEMENT VS CAPTURE

The Kyoto Protocol requires achievement of targets for greenhouse gases at a country level by abatement of emissions to the atmosphere and by capture of carbon from the atmosphere. Abatement may be achieved by a range of measures that reduce the amount of energy and materials used. In NAFI's view, the concept of "best available technology economically achievable" should apply to any regulatory requirements for abatement to avoid inequitable burdens on industry.

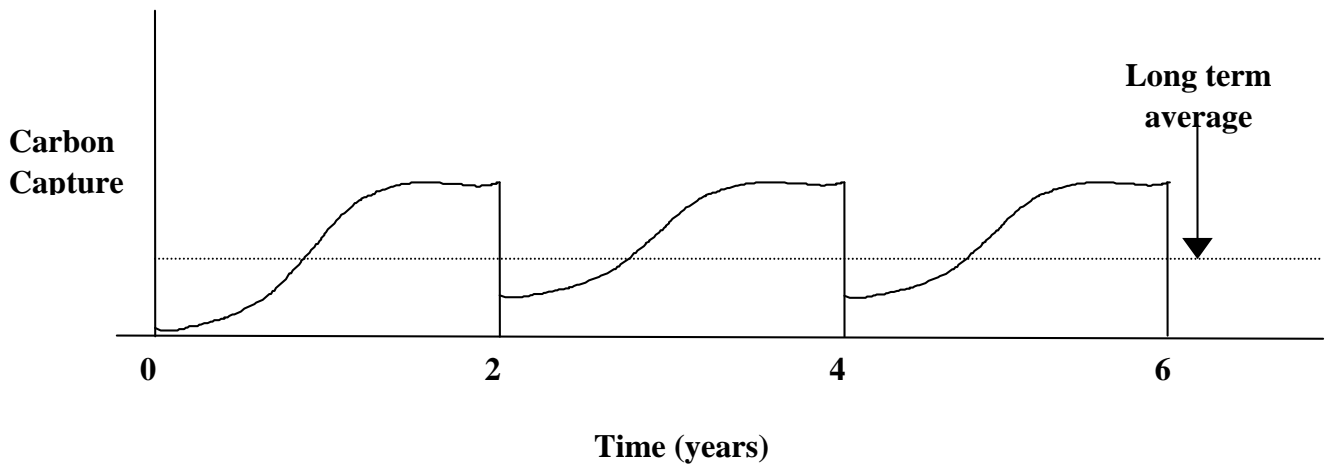
The forest industries can contribute to greenhouse gas emission abatement through production of fuelwood and use of wood residues and waste paper as substitutes for fossil fuels. More research and development is required in this area. NAFI recommends that the inquiry develops priorities and facilitates funding for this work.

The Protocol permits carbon capture achieved by direct human induced land use changes, such as reforestation, that have occurred since 1990 to be included in a national greenhouse gas inventory.

Changes to the management of natural forests and vegetation can increase the size of the carbon store in vegetation and soil organic matter. The carbon accumulated in a plantation forest stand established on cleared land provides a simple scenario because the "base line" level for comparison of the extent of the carbon store is relatively easy to identify. Carbon accumulated reaches a steady level when the trees mature, decreases temporarily when timber products are harvested, and returns to the mature level as the next crop grows. This pattern is

shown diagrammatically below. It can be seen that the average level of carbon stored on the plantation site is greater than under the previous land use.

Cumulative carbon benefits from the trees in a forest plantation on converted pasture land over three 20 year rotations



This is a conservative approach to assessing effects on carbon stores because it does not include carbon exported from the site and held in durable timber products. A draft workbook developed for the Commonwealth Government's Greenhouse Challenge Office provides a procedure to estimate the carbon stored on a plantation site. This procedure may be used to set a standard that may be up-dated as the technology for greenhouse gas inventory is further developed.

4. EMISSIONS TRADING

NAFI appreciates that a combination of mechanisms (regulation, taxation incentives, and market based mechanisms) may be applied to facilitate achievement of Kyoto Protocol targets and that different mechanisms may be appropriate for different sectors of the community. As a general rule, a market based system enables industry to assess the costs of alternative approaches to achieving targets. For example, energy intensive industries may weigh up the costs and effects of improving the energy efficiency of their operations, purchasing emission "entitlements" from other emitters of greenhouse gases and/or investing in the development of carbon stores.

NAFI therefore agrees with the conclusion of the Industry Commission Staff Research Paper *"Framework for greenhouse emission trading in Australia"* that market based systems are likely to provide more cost-effective ways to achieve Kyoto Protocol commitments than regulatory approaches. The Association accordingly encourages the inquiry to consider the development of approaches that minimise the need for regulatory intervention.

A market based approach to achievement of greenhouse gas targets is implicit in several articles of the Kyoto Protocol and is anticipated in the Terms of Reference of the inquiry. However, a system for trading in emissions may seriously affect the competitiveness of energy intensive Australian industries and impose substantial transaction and compliance costs. Any decision to establish such a system should therefore be taken only after proper

testing of the economic concepts and thorough consideration of the cost impacts on industries and consequent effects on the Australian economy.

If there is to be a market based system then we firmly believe it must be complementary with systems developed in other countries. This would be required to allow international exchange of entitlements and assist transfer of technology. To be practical it will require:

- effective emissions monitoring and reporting by participants;
- independent verification of emissions;
- efficient enforcement mechanisms; and
- good information about the market in order to keep transaction costs to a minimum.

Schemes such as that developed to facilitate trading in sulphur dioxide emission permits in the United States provide examples of how these issues may be dealt with in the case of trading in emissions of greenhouse gases.

5. CARBON CREDITS

NAFI has data on several transactions and joint implementation projects involving trading in carbon credits between industrial companies, government authorities and forest owners in North America, Central America, south east Asia and Europe. These examples suggest that development of a market in carbon credits in parallel with development of mechanisms for emissions trading may be inevitable.

Our competitive advantages in forestry suggest that Australia may be well placed to become a credit provider in a market for carbon credits. While this may increase investment in plantation development, NAFI is concerned that growth of trading in carbon credits may have the potential to distort the economics of the timber industry and cause significant disruption. It may also have other unforeseen economic effects. The Association is therefore not promoting the development of a market for carbon credits until these potential effects have been thoroughly explored.

If the inquiry considers that a mechanism to enable trading in credits for capture of greenhouse gases should be developed, then NAFI believes that the mechanism must:

- allow credits for capturing carbon from the atmosphere to be accrued by tree growers;
- enable emitters of greenhouse gases to balance investment in control of emissions with investment in development of carbon stores; and
- permit tree growers and emitters to negotiate freely on the assignment of proprietary rights to carbon stores.

NAFI has undertaken substantial background research into the issues associated with trading in emissions and credits for greenhouse gases. We are willing to work with the appropriate agencies in further development of Australia's response to Kyoto Protocol commitments.

In conclusion, NAFI recommends that the inquiry focus public policy efforts on the development of a market based approach to achievement of greenhouse gas abatement targets because a market based system will enable emitters to determine the most cost-effective

means of achieving targets. A market in carbon credits may develop based on trading in emissions. While there may be environmental and economic benefits to Australia from a market in carbon credits, the forest industries believe that further assessment of potential economic effects is required before such a market should be promoted.

