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SUBMISSION ON EMISSIONS TRADING SCHEME DISCUSSION PAPER GARNAUT CLIMATE CHANGE REVIEW

This submission on the Emissions Trading Scheme Discussion Paper from the Garnaut Climate Change Review is made on behalf of the plantation products and paper industry by A3P. A3P welcomes the opportunity to make a submission and congratulates the Garnaut Climate Change Review for the scope of topics covered in the issues paper. A3P has been engaged with consultation among the forestry industry and supports the joint submission to the Garnaut Review made on behalf of the overwhelming majority of forest growers in Australia (this submission is included as *Attachment C* to this paper).

A3P is the national representative body for the Australian plantation products and paper industry. A3P's 30 member companies have sales revenues of more than \$4 billion per annum and directly employ 13,500 people predominantly in rural and regional Australia in centres such as Mt Gambier, Morwell, Tumut, Albury, Oberon and Gympie.

A3P agrees with many of the issues, and proposed approaches, outlined in the Discussion Paper. There are four issues of great importance to the plantation products and paper industry in the implementation of an emissions trading scheme (ETS). These are:

- the inclusion of forest carbon storage in an ETS;
- the acknowledgement of the carbon stored in timber during use and after disposal;
- maintaining the international competitiveness of the pulp & paper sector; and
- reducing the duplication and confusion in the area of greenhouse and energy policy.

Attachment A gives a plantation products and paper industry view on climate change and emissions trading, detailing the sector's priorities with respect to an emissions trading scheme.

FOREST CARBON STORAGE

A3P notes, and applauds, the stated intention for "Agriculture and forestry to be included as soon as practicable". Reforestation (the establishment of new forests on previously cleared land) can, and should, be included in an ETS from the time of scheme commencement - there are no technical barriers to account for carbon flows in reforestation, and policy distortions will be reduced rather than increased through the inclusion of reforestation.

Reforestation is capable of making an immediate and important contribution to Australia's abatement challenge. The technology and infrastructure to reduce

greenhouse gas emissions through storage in forests is ready and implementable from scheme commencement. Forests can play an important role in providing liquidity and price stability in a carbon market.

PARTICIPATION THROUGH COVERAGE OR AS OFFSET PROVIDER

Realising the potential contribution of forests requires a mechanism for reforestation to participate in the emissions trading market. The principle options to achieve this are either coverage of the reforestation sector or participation by reforestation projects as offsets. The measurement and accounting methods under either option are well understood, tested and rigorous.

Participation by reforestation projects through an offset mechanism has been demonstrated in NSW GGAS. Reforestation is being included in the New Zealand Emissions Trading Scheme through an opt-in mechanism and Attachment B demonstrates how such an approach could be applied in Australia. Either option requires an accounting method that provides adequate recognition of the carbon benefit without imposing inappropriate liabilities in the form of measurement/auditing costs or other requirements.

However, under either option – covered or offsets – a badly designed scheme may send perverse signals including:

- Incentives to abandon existing plantations in favour of establishing new plantations elsewhere.
- Favouring investment in low productivity and marginal plantations.
- Imposition of a cost burden on existing forest owners – both pre- and post-1990 plantations and native forest owners.
- Practical exclusion of demonstrably successful funding models for reforestation.

The treatment of reforestation under an emissions trading scheme should:

- Create incentives for abatement through reforestation.
- Allow a range of reforestation models to participate in the scheme including, as far as possible, all projects that contribute to Australia's national greenhouse gas accounts.
- Not expose existing native forest and plantation owners to a perverse liability for their intended future management (particularly given that these forests are reducing Australia's greenhouse gas emissions).
- Not impose measurement costs that are disproportional to the benefits that forest owners may receive.
- Include a commitment to acknowledge the carbon that remains stored in harvested wood products during use and after disposal.

Achieving the objectives described above under either a 'covered' or 'offset' model will require caution in the rules that underpin that model. A poorly designed version of either a covered or offset model would punish participants in the reforestation sector despite their positive contribution to greenhouse gas mitigation, and could decimate (or even reverse) the potential contribution of the reforestation sector to Australia's abatement challenge.



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COVERED

In the case of a covered model, existing forest owners must not be exposed to a liability, or a reduction in asset value, from future management of their forests. To expose them to a significant cost would be a perverse outcome given that the forests are making a positive contribution to abatement – at the very least they withhold carbon from the atmosphere for a period of time with no net emission – and, in the case of plantations, they would have been established either in the absence of a carbon cost regime, or with a reasonable expectation that such a regime would provide a positive financial return.

Under a covered model it will also be important not to impose a significant measurement and auditing burden on forest managers that do not wish to participate in the scheme. At worst a forest withholds carbon from the atmosphere for a period of time; hence a decision not to measure and participate (and assume zero net emissions) represents a conservative estimate of net emissions.

Until a draft set of rules is proposed and can be discussed by the industry it is not possible to assess whether coverage would provide appropriate market signals to the forestry sector and, most importantly, whether it rationally treats existing plantation forests. The simplest method to incorporate reforestation under a covered model is to utilise an opt-in mechanism as in the New Zealand scheme.

OFFSETS

Under an offset model the rules regarding eligible projects must allow a broad array of reforestation projects to participate. Schemes such as NSW GGAS and Greenhouse Friendly have failed to capture the full abatement potential of forest offsets; compliance requirements have not reflected the genuine capacity for carbon storage in forests. Any reforestation occurring after 1990 contributes to Australia's national accounts, and as many of these types of projects as possible should be capable of participating in the scheme. Similarly, rules around additionality and permanence should seek to ensure the credibility and rigour of any credit created without being so prescriptive as to perversely preclude a potentially significant source of abatement.

Crediting methodologies must be appropriate to the carbon flows resulting from plantation management. The lack of large numbers of participants in current schemes surely says something about the compatibility and cost/benefit of entry into these schemes for existing forestry businesses and business models.

In the case of both the 'covered' and 'offset' models, mechanisms should also be in place to credit the carbon-motivated investment that has already taken place, including a number of investment programs that had financial objectives relating to carbon, projects accredited under NSW GGAS and investments clearly motivated by the storage of carbon (e.g., investment by major consumers of fossil fuels).

In conclusion, reforestation is capable of making an immediate and important contribution to Australia's abatement challenge and should be included from the commencement of an emissions trading scheme. Realising the potential contribution of forests requires a mechanism for reforestation to participate in the emissions trading market through either opt-in coverage, or participation by reforestation projects as offsets. The measurement and accounting methods under either option are well understood, tested and rigorous.

Coverage of reforestation is the likely outcome in the medium term given the Government's appropriate ambition to develop a scheme with maximal coverage.



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Government may decide that a robust set of rules cannot be developed for coverage of reforestation by the time of scheme commencement in 2010. This may be particularly true in the treatment of existing plantations (both pre 1990 and post 1990) and a desire not to send perverse market signals to owners of these plantations. In this case, A3P strongly urges the Government to at least include reforestation as an eligible offset with a set of detailed rules that enable the participation of conventionally funded reforestation projects. This will be vital to maintain the reforestation momentum generated through the NSW GGAS and Greenhouse Friendly programs and ensure that early movers are not bizarrely punished for their rapid uptake.

The experience of NSW GGAS, the developing scheme in New Zealand and the method included in *Attachment B* all demonstrate that reforestation can be incorporated in an emissions trading scheme in a robust manner. ***However, until proposed ETS rules for the treatment of reforestation under either option are proposed it is not possible to provide more certain advice on whether opt-in coverage or offsets provides the most appropriate market signals.***

HARVESTED WOOD PRODUCTS

Finally, participation of reforestation in an emissions trading scheme under either a 'covered' or 'offset' model would provide financial incentives for additional carbon storage in forests. However, the greatest ability for forests to mitigate the impact of climate change is through a combination of forests storage, carbon stored in wood products, and substitution for greenhouse-intensive alternatives in building and energy contexts. Unleashing this potential requires a mechanism for acknowledging the carbon stored in wood products while in use and after disposal.

There is a growing amount of data to underpin such a mechanism. It is acknowledged that the detailed method for creation and attribution of a credit is not tested but it would require only relatively minor effort to achieve such an outcome. The inclusion of reforestation in an emissions trading scheme should be accompanied by a commitment to, and timeline for, the crediting of carbon stored in harvested wood products.

INTERNATIONAL COMPETITIVENESS OF THE PULP & PAPER SECTOR

A3P welcomes the acknowledgement that "Until our major competitors have broadly similar emissions constraints, payments to TEEIs are justified for reasons of environmental and economic efficiency". The pulp and paper sector is one of the most emissions intensive sectors of the economy and faces competition in domestic markets from producers in China, Indonesia and Korea. We note the analysis that suggests that payments could be in the form of cash or permits. A3P is of the view that permits will more appropriately offset the financial impact because the increased costs and permit value are linked. It is important for the security of investment that this policy approach is secure in the long-term and free from political interference.

At this stage of policy development it is also crucial that Government gives an indication of the process and criteria by which trade-exposed, emissions-intensive status will be assessed. It is clear from the timelines that decisions of this type will be made in the near future and that industries and individual companies will have only a short time to respond. The process outlined in the Discussion Paper – requiring an estimate of the global product price if all producers were operating under a carbon constraint – though theoretically accurate, will be extremely difficult and expensive to implement in practice due to a lack of credible and transparent information on emissions from many international producers. A process of permit



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allocation based on the increased costs endured by Australian producers would achieve the same outcome and could be based on robust and auditable data.

In defining TEEI industries it will be critical to consider increases in the cost of purchased energy as well as increased costs associated with direct and indirect emissions to properly determine the extent to which producers will be affected. For example, the cost of hydro electricity will increase in line with coal fired electricity even though it is a lower emissions source.

A3P calls for further detail on the process and criteria to define trade-exposed and emissions-intensive industries and proposes that payments should be in the form of permits and under secure long-term arrangements.

GREENHOUSE AND ENERGY POLICY

Currently there are a range of conflicting, competing and duplicative greenhouse and energy reporting requirements at a State and Federal level. These are imposing a significant cost burden on industry. It has been a frequently stated objective of industry to see these schemes reduced and rationalised and an almost as frequently stated intention of governments to do so. Despite this, little progress has been achieved in recent years and in many cases the situation has got worse.

The implementation of an Australian Emissions Trading Scheme and the associated reporting under the National Greenhouse and Energy Reporting System provide the basis of future policy in this area. If implemented rationally these will impose a carbon cost broadly to the economy, create financial incentives for an efficient level of, for example, renewable energy and energy efficiency, and impose a nationally consistent and transparent reporting obligation on emitters.

It follows that other programs at a State and national level that also purport to address these areas should be removed and that new programs not be implemented with the same or similar objectives. If there are policy needs outside the influence of emissions trading and reporting, these must be clearly articulated and the policy must be subject to rigorous cost-benefit assessment.

It is not credible to suggest that a policy that listed emissions reductions as one of its objectives – the Mandatory Renewable Energy Target, Energy Efficiency Opportunities Assessment and a multitude of State schemes all fall into this category – should continue unchanged following the implementation of an emissions trading scheme, due to “other objectives”. If one of its principle objectives (emissions reductions) is now being targeted by a significant and broad Government intervention then it must follow that the program should be substantially reworked and reduced, but more likely removed altogether.

A3P calls for a rigorous and aggressive examination of Government greenhouse and energy programs to ensure that the emissions trading scheme is allowed the freedom to operate efficiently.



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Thank you for the opportunity of providing comment. A3P would appreciate the opportunity to participate in processes that develop further detail. If you have any questions please contact Miles Prosser on 02 6273 8111 or miles.prosser@a3p.asn.au.

Yours sincerely



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CLIMATE CHANGE AND EMISSIONS TRADING

A PLANTATION PRODUCTS AND PAPER INDUSTRY VIEW

SUMMARY

A3P accepts that human-induced climate change is real and requires urgent and substantive action on a large scale.

A global emissions trading scheme would be an effective component of a global response. However, there appears little likelihood that this can be achieved in the short or medium term.

At a domestic level, emissions trading, if designed well, will be more efficient than the current arrangement of conflicting and duplicative Government programs, as well as contributing towards a global response in the longer term.

Accordingly A3P supports the development and implementation of an Australian emissions trading scheme provided the international competitiveness of emissions-intensive, trade-exposed industries such as pulp & paper manufacturing can be maintained. There are a number of basic principles that should be cornerstones of a domestic scheme design:

- a) A minimum of rules that limit the choice or level of abatement options.
- b) Timeframes that are appropriate for both the required investments (40+ years) and the duration of the environmental challenge.
- c) The scope should be as broad as possible.
- d) The accounting methodology should reflect the true fate of carbon.
- e) It must be national in scope, institutions, administration, implementation and management.
- f) Other Government energy efficiency, energy reporting and greenhouse reporting programs be removed.
- g) The right to emit should exist as a secure property right.
- h) A viable quantity of permits, that cover investment timeframes, should be issued to allow transparency of price and ability to hedge risk.
- i) The scheme must be based on simple, rigorous, efficient accounting rules that minimise the cost of measurement, compliance and transactions.

There are certain design elements of an emissions trading scheme upon which the support of the plantation products and paper industry is conditional.

- j) Forest carbon storage should be included in the scheme design.
- k) There should not be any artificial limitations on the amount of abatement that can be achieved through any particular means such as forestry.
- l) Carbon accounting that acknowledges that carbon remains stored in timber while it is in use and for many decades after disposal.
- m) All competing building materials (such as steel and concrete) in the domestic market must equally face the full carbon cost for emissions during their manufacture.



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- n) Baselines should be set in manner that does not disadvantage early movers in the production and use of renewable energy.
- o) Other Government impediments or restrictions on the use of waste for energy production must be removed.
- p) Measures must be included to maintain the international competitiveness of emissions-intensive, trade-exposed industries, such as pulp and paper production, for as long as a viable global regime is not in place
- q) These measures should include:
 - o simple, streamlined processes
 - o stable treatment of companies, facilities and products
 - o durable rules and procedures
 - o detailed, unambiguous criteria and rules that prescribe how decisions will be made
 - o decision-making that is rigorous and fact-based
 - o decision-making and regulation through a body that has authority to make determinations but is clearly separated from Government and political influence



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BACKGROUND

A3P is the national representative body for the Australian plantation products and paper industry. A3P's 30 member companies have sales revenues of more than \$4 billion per annum and directly employ 13,500 people predominantly in rural and regional Australia in centres such as Mt Gambier, Morwell, Tumut, Albury, Oberon and Gympie.

The three sectors of A3P's membership are faced with different opportunities and threats by climate change and Governments' response including a possible emissions trading scheme.

- The pulp & paper sector is a significant user of energy, particularly in mechanical pulping processes, and is faced with strong competition from imported product from countries such as China, Brazil, Indonesia and Korea. The sector is also a producer of renewable energy using processing waste such as black liquor from chemical pulping. This renewable energy may be used on-site or exported to the grid. The pulp & paper sector used more than 50 000 TJ of energy in 2003-04 with more than 12 000 TJ produced from renewable sources on-site.
- The solid wood sector is an energy user and a potential producer of renewable energy from residues. Sawntimber stores carbon and has a significantly lower global warming potential than competing building materials.
- The plantation growing sector manages significant carbon sinks. Plantation expansion is contributing to Australia's performance against our Kyoto target and there is potential for increased activity through appropriate market responses to climate change.

The three sectors are strongly linked through supplier/customer relationships, corporate structures and market arrangements. Positive and negative impacts on one sector inevitably flow through to other sectors.

A3P members comprise 30% of the total elective participants in Australia's only current emissions trading scheme (NSW GGAS). This level of participation is the largest of any sector. A3P is therefore able draw on extensive practical experience when commenting on proposed emission trading schemes.

STATEMENT OF PROBLEM AND RESPONSE

A3P accepts that human-induced climate change is real and requires urgent and substantive action on a large scale. Further work is needed on scientific understanding and predictions but enough is currently known to justify action.

Early action will also create flexibility for future emissions paths, encourage rapid development and implementation of new technology, and reduce the cost of future action.

Emissions trading, if designed well, will be an important component of the response and will be more efficient than the current arrangement of conflicting and duplicative Government programs.

Other components of the response that would complement emissions trading include adaptation; research and development directed toward new low- or zero-emission technology; mandated performance standards; and measures for any sectors not covered by an emissions trading scheme.



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A carbon cost already exists in the Australian economy through existing schemes such as MRET, NSW GGAS, VRET, Qld 13% Gas, etc.

Much has already been done by the plantation products & paper industry, partly in response to these carbon costs, but also as part of ongoing investment and cost minimisation. The plantation products and paper industry is already a key part of Australia's response to climate change through activities such as carbon sequestration in plantations, the production of timber – a low greenhouse impact building material, reduction of energy used in processing and production of renewable energy.

A3P members have been involved in current Australian and international emissions trading schemes. This includes a number of A3P members being benchmark participants in the NSW GGAS scheme, and members with operations in countries working under the European trading scheme.

A GLOBAL SCHEME?

A global emissions trading scheme would be an effective component of a global response, enabling efficient action to be taken at the necessary speed, scale and scope.

Because of the inherent impacts on global competitiveness, the minimum definition for an effective global scheme from an Australian perspective would be a substantial proportion of global emissions and our major trading partners in emissions-intensive sectors. In effect, this will add up to most of the world's emissions anyway. There appears little likelihood that this can be achieved in the short or medium term.

Given the current situation, the only conceivable way to work towards a global scheme seems to be for Australia (and others) to take a two-pronged approach:

- (1) develop a workable domestic emissions trading scheme that deals with local circumstances; and
- (2) encourage others to do the same through international fora and link the schemes through decisions that allow the import of particular overseas permits.

Within this framework it will be important that Australia continues to participate in work on identifying international long-term targets for emissions reductions and seeks to link any domestic scheme as widely as possible with other credible emissions trading schemes.

PRINCIPLES OF EMISSIONS TRADING

In the design of a domestic emissions trading scheme, there are a number of basic principles that the Australian Government should establish as cornerstones of the scheme design. These principles should be important to any party interested in an effective and efficient response to climate change and are not specific to the plantation products and paper industry.

- a) *Harness the power of the market* – the greatest benefit of emissions trading is the ability of the market to find the lowest cost solution. It follows from this that scheme should have a minimum of rules that limit the type or level of abatement. The underlying principle should be to treat all opportunities equally based on their mitigation impact.
- b) *Timeframes* – an emissions trading scheme should be based on timeframes that are appropriate for both the required investments (40+ years) and the



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duration of the environmental challenge. Targets and property rights should be established that are mindful of these timeframes.

- c) *Scope* – The scope of any scheme should be as broad as possible. All gases and sectors that contribute to emissions or abatement should be included. A failure to do so will increase the cost of the scheme and reduce its effectiveness. Difficulties in accounting and abatement are often overstated. There would need to be a compelling loss of efficiency (i.e., higher costs of measurement than benefits of abatement) before gases or sectors were excluded.
- d) *True fate of carbon* – The accounting methodology should reflect the true fate of carbon – emissions should be “charged” as and when they occur and sequestration should be “paid” as and when it occurs. The scheme should aim to expose producers and consumers to the true carbon cost of their decisions.
- e) *National* - An emissions trading scheme must be national in scope, institutions, administration, implementation and management.
- f) *Other government programs* - There are a range of Government energy efficiency, energy reporting and greenhouse reporting programs that have been implemented because a greenhouse market signal has not been present in the Australian economy. If a national emissions trading scheme is implemented it is vital that these other programs be removed.
- g) *Property rights* - The right to emit should exist as a secure property right. It should not be possible for the right to be diluted or removed without compensation.
- h) *Allocation* - A viable quantity of permits, that cover investment timeframes, should be issued to allow transparency of price and ability to hedge risk.
- i) *Rules and Regulations* – The scheme must be based on simple, rigorous, efficient accounting rules that minimise the cost of measurement, compliance and transactions.



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THE PLANTATION PRODUCTS AND PAPER INDUSTRY & CLIMATE CHANGE

There are four issues specific to the plantation products and paper industry which we would like to highlight to those developing Government policy responses to climate change:

1. *Sequestration in plantations and products.* The primary production component of the industry – plantation growing – is a major contributor to carbon sequestration and has the potential to make a greater contribution under the right policy settings. Plantation products retain carbon while in use and, based on recent research, for many decades after use. Long term plantation products therefore also represent a significant carbon sink.
2. *Greenhouse friendly building material.* International studies, including those by the National Council for Air and Stream Improvement (NCASI) in USA, have demonstrated that timber has lower levels of embodied energy and a lower greenhouse footprint than other building materials.
3. *Renewable Energy Use.* The processing sectors of the industry – sawmilling, pulp and paper – already have high levels of renewable energy use, including the production, and export to the grid, of electricity generated from wood residues and the by-products of chemical pulping (black liquor).

There is also significant potential for increased renewable energy production from plantation wood.

4. *Emissions-intensive, trade-exposed.* The pulp & paper sector particularly is a large user of energy and despite high levels of renewable energy use is relatively emissions-intensive. The sector also faces intense competition from suppliers in countries with lower environmental standards and little likelihood of introducing a carbon cost, such as China, Brazil, Indonesia and Korea. The impact of an Australian carbon cost on the competitiveness of the pulp & paper sector is a major concern.

Points 2 and 4 above are a specific example of a conundrum that faces the designers of a policy response to climate change, in the absence of a truly global response.

The introduction of a carbon cost will change the relative competitiveness of competing products or services on the basis of their emissions profile. This is central to the objective of the policy and must be allowed to occur. It creates the market signal that brings about the behavioral change needed to reduce emissions.

However, the introduction of a carbon cost in some countries and not others will change the competitiveness between products based on their country of origin, not their emissions profile. This is contrary to the policy objective, damaging to the economy, and will not lead to reductions in emissions. Measures should be implemented to minimise or eradicate this effect.

The challenge to policy makers is to design a response that allows the former outcome but prevents the latter. In the context of the plantation products and paper industry, it must reward the lower greenhouse footprint of timber compared to competing building materials but not reduce the competitiveness of Australian pulp & paper producers relative to producers in countries with no carbon cost.

IMPLICATIONS FOR EMISSIONS TRADING

It follows from the four specific issues highlighted above that there are certain design elements of an emissions trading scheme that are crucial to the plantation products and paper industry. These are not requests for special treatment but areas where the policy must closely align with the real climate change impacts of behavior so that perverse incentives or distortions are not created. Other examples of greenhouse policy including the European Emissions Trading Scheme and the NSW Greenhouse Gas Abatement Scheme have not always effectively addressed these issues.

1. *Sequestration in plantations and products.* Ensuring that the carbon stored in plantations and plantation products is appropriately accounted for in an emissions trading scheme suggests the following high-level design elements:
 - j) Forest carbon storage should be included in the scheme design.
 - k) There should not be any artificial limitations on the amount of abatement that can be achieved through any particular means such as forestry.
2. *Greenhouse friendly building material.* An emissions trading scheme will provide a clearer carbon price signal and lead to more abatement if it has the following design elements:
 - l) Carbon accounting that acknowledges that carbon remains stored in timber while it is in use and for many decades after disposal - this brings the carbon storage up to the 100-year threshold often used as a surrogate for permanence.



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- m) All competing building materials (such as steel and concrete) in the domestic market must equally face the full carbon cost for emissions during their manufacture. Any measures to address the international competitiveness of these sectors must not negate the carbon market signal in the domestic building market.
3. *Renewable Energy Use.* Renewable energy production and use will be an important part of a response to climate change.
- n) Baselines should be set in manner that does not disadvantage early movers in the production and use of renewable energy.
- o) Other Government impediments or restrictions on the use of waste for energy production must be removed.
4. *Emissions-intensive, trade-exposed.* Given that an effective global regime is unlikely in the short or medium term, and there are strong arguments for commencing action sooner rather than later in Australia, the following design elements should be incorporated in any domestic scheme:
- p) Measures must be included to maintain the international competitiveness of emissions-intensive, trade-exposed industries, such as pulp and paper production, for as long as a viable global regime is not in place
- q) These measures should include:
- simple, streamlined processes
 - stable treatment of companies, facilities and products
 - durable rules and procedures
 - detailed, unambiguous criteria and rules that prescribe how decisions will be made
 - decision-making that is rigorous and fact-based
 - decision-making and regulation through a body that has authority to make determinations but is clearly separated from Government and political influence

Three types of measures are often proposed as methods of maintaining international competitiveness.

Exemption – exempt trade exposed industry from obligations under the scheme.

Compensation (including free allocation) – Payment of compensation (including cash or partial free allocation of permits) to emissions-intensive, trade-exposed industry to offset increased production costs.

Border measures – rebates of increased costs for exports, and tariffs on imports.

Exemption is difficult in practice, if not impossible, given that emissions and increased costs occur predominantly within the energy sector rather than the manufacturing sector. Compensation has the drawback that it is likely to neutralise the desired impact on, for example, building materials in that it would offset any increased costs for steel and concrete relative to timber.

Border measures appear to most effectively address the problem and minimise collateral damage. However there is an enormous level of sovereign risk associated with whether such an approach would be durable under World Trade Organisation

rules or could feasibly be negotiated internationally. There is a strong case to explore this option further and either identify what would need to change internationally to make it feasible, or definitively rule it out as an option.

It would appear that the task of introducing a carbon cost to the Australian economy without disadvantaging a large component of the existing manufacturing industry is the most significant challenge in the development of policy on climate change mitigation. A3P is of the view that, in light of the currently available information, permits are more likely to appropriately offset the financial impact because of the intrinsic link between increased costs and permit value.

As emissions trading policy development moves to more advanced stages, it is crucial that Government gives an indication of the process and criteria by which trade-exposed, emissions-intensive status will be assessed. It is clear that this decision will be made in the near future, with only a short response time for industries and individual companies. It is becoming imperative that Government achieves clarity in this area, as the current climate of uncertainty is already affecting and complicating investment decisions of some of A3P's member companies.

The process for assessment of TEEI status outlined in the Discussion Paper - requiring an estimate of the global product price if all producers were operating under a carbon constraint – though theoretically accurate, will be extremely difficult and expensive to implement in practice due to a lack of credible and transparent information on emissions from many international producers. A process of permit allocation based on the increased costs endured by Australian producers would achieve the same outcome and could be based on robust and auditable data.



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INCLUSION OF THE FOREST AND WOOD PRODUCTS INDUSTRY IN AN AUSTRALIAN EMISSIONS TRADING SCHEME



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1. SUMMARY

Carbon storage (and emissions) in reforestation projects can be covered in an Australian Emissions Trading Scheme efficiently and accurately from scheme commencement in 2010.

Carbon accounting for reforestation projects will enable the forest manager to gain credit for the removals during forest growth but be exposed to the liability for emissions at harvest. In this way, carbon in forests and wood is treated exactly the same as carbon in fossil fuels or any other store.

Reforestation projects after a defined *eligibility date* will have the option of entering the scheme. Once a parcel of land is entered into the scheme all carbon emissions and removals after a set *accreditation date* will be covered by the scheme.

Challenges such as difficulties in measuring or estimating emissions, covering a large number of small entities, or a lack of abatement options have been proposed as valid reasons for excluding sectors such as agriculture. However, none of these challenges apply to reforestation.

The science of measuring carbon in forests is now well understood and has been demonstrated as the basis for credit creation in the NSW GGAS and is about to be applied as the first stage of the New Zealand ETS. Existing forest management systems are constructed around the measurement, tracking and commercial sale of wood – the quantity of which is directly related to the quantity of carbon.

As soon as possible, an accounting method should be developed so that all wood products in long-term use would create a credit for the carbon stored.

2. THE FOREST AND WOOD PRODUCTS INDUSTRY

This paper is concerned with the mechanisms for inclusion of the forest and wood products sector in an Australian Emissions Trading Scheme. It draws on the design promulgated by the Prime Minister's Task Group on Emissions Trading (TGET), that of the National Emissions Trading Taskforce (NETT), and the interim findings of the Garnaut Review.

The forest and wood products industry can be most simply thought of as three sectors: forest growing, sawmilling (and particleboard and medium density fibreboard production), and pulp & paper manufacturing. Forest growing in turn can be divided into native forests and plantation forests. Plantation forests, in turn, can be differentiated based on their year of first planting. This paper is particularly concerned with how to incorporate the forest growing sector and, conceptually, harvested wood products into an emissions trading scheme as these are the areas open to discussion.

3. CURRENT STATUS OF THE FOREST AND WOOD PRODUCTS INDUSTRY IN EMISSIONS TRADING

The (mainly) fuel and electricity related emissions of the sawmilling sector and the pulp & paper sector will be captured through the normal thresholds and mechanisms that apply to all industries under an emissions trading scheme.

Forests were preliminarily identified as an 'uncovered' sector by the previous Government with the ability to participate in early action as a provider of offsets. The existing Greenhouse Friendly rules were proposed to apply initially with these to be reviewed in 2008. These rules allow certain new plantations established after 2001 (and earlier through changed management) to generate offsets. While forests were listed with agriculture as potentially outside the scope of a national emissions trading scheme, no final decision has been made.

The TGET also identified that "Australia should make it a priority to explore and demonstrate more rigorous methodologies for plantation products, which take into account the carbon contained in harvested wood products".

The Interim Report of the Garnaut Climate Change Review stated "there is considerable potential for sequestering large amounts of carbon through changes in land and forest management and agricultural practices. It is important that incentives to realise this potential are in place as early as possible in the life of the ETS."

The Commonwealth Government is currently considering the design of an Australian emissions trading scheme (AETS). Amongst the many design elements to be decided is whether to, and the method for, inclusion of reforestation within an AETS. There are, in broad, three options:

1. exclusion from the scheme – neither storage of carbon in new forests nor emissions through harvesting would be subject to a carbon cost, though other measures may apply in the sector.
2. not covered but participating as offset projects – projects would need to be compared to a baseline in order to generate credits.
3. full coverage – the storage of carbon and emissions through forest management would be the subject of a carbon cost.



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This paper proposes a method by which forest carbon storage could be simply and efficiently incorporated into an emissions trading scheme and a framework for incorporating the carbon contained in harvested wood products.

MAXIMAL COVERAGE

On face value, the principle of maximal coverage would be a clear justification for the inclusion of reforestation. However there are limits to the extension of the maximal coverage position. Challenges such as difficulties in measuring or estimating emissions, annual variability in emissions, covering a large number of small entities, or a lack of abatement options have been proposed as valid reasons for excluding sectors such as agriculture. However, none of these challenges apply to reforestation.

The science of measuring carbon in forests is now well understood and has been demonstrated as the basis for credit creation in the NSW GGAS and is about to be applied as the first stage of the New Zealand ETS. Existing forest management systems are constructed around the measurement, tracking and commercial sale of wood – the quantity of which is directly related to the quantity of carbon.

The structure of reforestation in Australia is similar to other sectors proposed to be covered by the AETS, that is, the vast majority of the activity is undertaken by a small number of companies (less than a dozen) and measures could be implemented to make the scheme accessible to small landowners.

Unlike some agricultural land uses, there are ample opportunities for managers of reforestation projects to provide increased abatement if appropriate market signals are provided. These opportunities include new plantation projects, changes in management regimes and species selection, longer rotations, and even a decision to postpone harvest.

No credible reasons have yet surfaced for exclusion of reforestation from an AETS. Therefore the principle of maximal coverage provides strong justification for full coverage.

4. AIMS OF EMISSIONS TRADING SCHEMES

The incorporation of reforestation offsets and harvested wood products into an emissions trading scheme must maintain the credibility and rigour of the scheme; create consistent market signals; and assist the future development and efficient operation of the scheme. Accordingly it is suggested that the incorporation of reforestation offsets and harvested wood products should deliver on the following aims:

- Reflect real carbon flows – the accounting treatment should reflect the actual greenhouse gas emissions, removals and long-term storage.
- Provide incentives for abatement – the accounting treatment should provide appropriate financial signals: credit for removals and liabilities for emissions.
- Response to carbon prices – flexibility for changes in management and emissions profile in response to changes in carbon price.
- Additional – if included as an offset, abatement should be credited only if it is additional to what would otherwise have occurred.
- Permanent – long term offset credits should only be created by long-term storage of carbon.
- Measurable – greenhouse gas emissions and removals must be measurable and quantifiable.



- Verifiable – greenhouse gas emissions and removals must be verifiable by an external party.
- Real – offset credits should only be created once the carbon has been stored.
- Broad coverage where feasible – consistent with the principles of emissions trading, sectors should be covered by the scheme as soon as feasible.
- International links – accounting treatment should assist in building linkages with other schemes internationally.
- Manageable administrative cost – the accounting methods should not impose undue administrative costs.
- Implementable at entity or enterprise level – the accounting treatment should be implementable, and provide appropriate signals, at an entity, enterprise or project level.
- Boundary issues and knock-on policy effects – boundary issues with other sectors and undesirable implications in other policy areas should be minimised.



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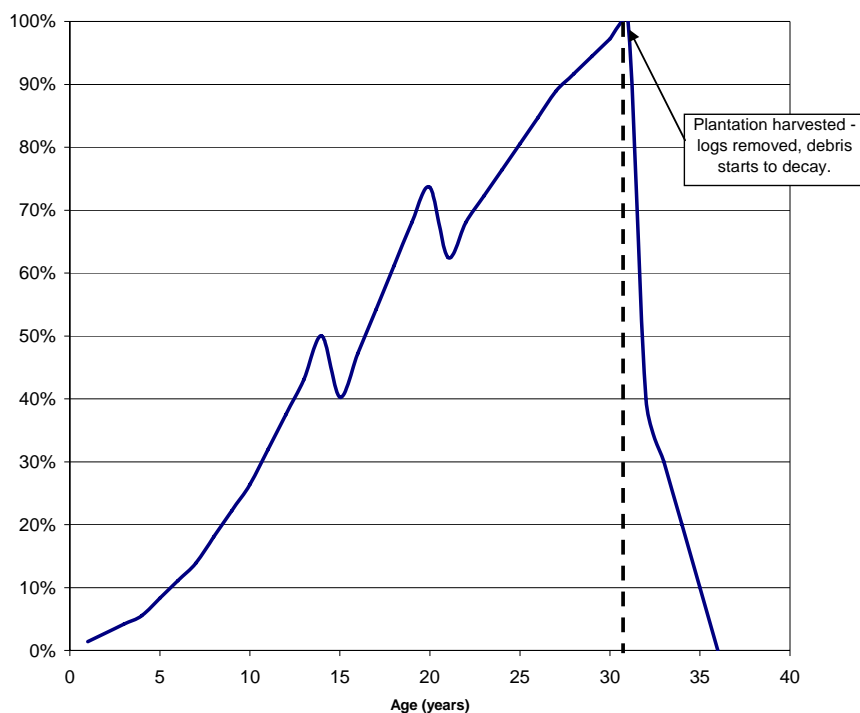
5. ISSUES FOR INCLUSION OF FORESTS AND WOOD PRODUCTS

The forest and wood products industry has specific characteristics that require explicit treatment if they are to be effectively integrated into an emissions trading scheme.

BASIC CARBON PROFILE

The basic on-site carbon profile of a long-rotation production plantation is shown in Figure 1.

Figure 1 – Carbon profile of single plantation rotation



The on-site carbon storage rises as the plantation grows, declines when thinned, before commencing the final decline at the time of harvest. The decline is not immediate at the time of final harvest. Some carbon is released as the debris decomposes over a number of years.

It is important to note that this profile shows the on-site, above-ground carbon stocks. A portion of the decline at each thinning and harvest consists of carbon taken off-site in the form of products (logs that will become paper and timber). This carbon is not a real emission at that time, simply a transfer from 'forest carbon' to 'forest product carbon'. If the carbon that is retained in harvested wood products was taken into account, the stocks would not decline to 0% at the end of the rotation.



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COVERED SECTOR OR OFFSETS?

The first challenge is to determine if forests should be a covered sector in an emissions trading scheme; or eligible to participate through the provisions of offsets; or excluded entirely. Variants on these basic options include a timeline for inclusion or inclusion of components, but not all, of the forest sector.

It is commonly accepted that an emissions trading scheme should be as broad as possible. Broad coverage increases the likelihood that the lowest cost abatement options will be available to the market and spreads the cost of abatement across a larger proportion of the economy. Against this, the reasons for possible exclusion of the forest sector include the fluctuations of removals and emissions inherent in the forest management cycle, difficulties in measurement and the relative cost of measurement compared to the likely abatement or emissions.

In considering possible coverage of the forest sector (or participation as offsets) it may be beneficial to consider the measurement challenges separately for: plantations and native forests; small-scale and large-scale growers; forests with planned emission events (harvesting) and forests without planned emission events; and for 'new' forests (that represent a land-use change) and existing forests.

IMPERMANENCE

Biosequestration (including forest sequestration) is different to most other forms of abatement in that action taken today may only represent an impermanent removal of greenhouse gases. While a decision to change fuel sources, for example, leads to a known reduction in greenhouse gas emissions and atmospheric concentrations, a decision to establish a forest may only cause a temporary removal of carbon dioxide from the atmosphere depending on the future management of the forest and products harvested from it. Carbon capture and storage is perhaps the only other significant abatement option that shares this characteristic.

This characteristic leads to consideration of the 'impermanence' of the claimed abatement and the relative risk that a reversal of the removals will reduce the effectiveness in ameliorating the greenhouse effect. This has been dealt with in some schemes by measures that require the carbon to be maintained in the forest for a minimum period (e.g., seventy or a hundred years). However it could also be dealt with through a carbon accounting methodology that accurately tracked the flux in carbon storage - crediting storage and creating liabilities for emissions, as and when they occur.

ELIGIBLE START AND ACCREDITATION DATE (INCLUDING MID-ROTATION PLANTATIONS)

Forests also differ from many other forms of abatement in that significant abatement will only occur a number of years (e.g., 3-5 years) after the management action is taken (establishment of a new forest). This has led a number of companies to establish forests in recent years in the expectation that they will produce abatement that would be credited during the timeframe of a future scheme.

This issue, in turn, has led the regulators of schemes to specify threshold dates (perhaps different to the scheme commencement date) for inclusion of forests in emissions trading. Two separate dates may be specified:

Eligibility date – the establishment of forests must have occurred after this date for the project to be eligible.

Accreditation date – for forests established after the eligibility date, only the carbon sequestration (from forest growth) after the accreditation date will be eligible for creating credits.

For example the eligibility date may be 1990 while the accreditation date may be 2005, meaning that only new forests established after 1990 would be eligible and even then, only carbon sequestered as a result of forest growth after 2005 could generate credits.

Separate eligibility and accreditation dates may be used to acknowledge action taken in anticipation of a carbon cost but maintain consistency between forests and other industries.

If a forest was established after the eligibility date and before the accreditation date, only part of the total carbon stocks would be capable of generating credits – the carbon stored after the accreditation date. At the time of harvest the on-site carbon stocks would be reduced to a level lower than existed at the accreditation date (but not lower than the pre-plantation, eligibility date level). Even if the emission liability at the time of harvest was limited so that it didn't exceed the level of credits created, the forest owner would still lose the benefit of the long term carbon storage in the logging debris and early growth of the new plantation. This would create a perverse incentive to abandon the plantation and establish a new plantation elsewhere (with no carbon benefit). See Attachment A for a more detailed explanation

ADDITIONALITY

If forests are not covered in an emissions trading scheme but participate through the provision of offsets, the issue of additionality becomes important. Offset credits should only be created by action that is additional to what would otherwise occur or beyond business-as-usual. Elements of additionality can include financial, environmental and regulatory.

Whether a forest planting is 'additional' can be a complex issue. Investment in commercial plantations by Government forest services or by forest processing companies through the 1990s and early 2000s has been low. The expansion in the resource base over this time has been largely the result of investments through managed investment schemes. Although these schemes have established varying amounts of plantations over the years, it is important to note that they are a collection of individual annual investment decisions by a large number of investors not a single program of investment over a number of years by a single entity. Investment by any individual in any year does not require, imply, or even encourage, investment by that same investor in future years.

Ongoing plantation establishment under MIS structures may continue but future investments are new decisions by new investors, not a continuation of a previous business.



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FLUCTUATING CARBON PROFILES

Harvesting of forests leads to a reduction in the quantity of carbon stored on site (though depending on the fate of the harvested material, not necessarily an overall reduction in stored carbon). If the forest is re-established, regenerated or maintained the carbon stored on site will again increase, producing a fluctuating carbon storage profile over time. These fluctuations in the estate carbon storage profile are reduced if multiple forests and ages are managed jointly but in most commercial situations, particularly for small-scale projects, the variable nature is still significant.

In Australia, operating crediting approaches for forests use long term minima as the basis of credit creation to deal with concerns about impermanence. Such an approach can limit the creation of credits to a level significantly less than the long term abatement benefit of the forest.

HARVESTED WOOD PRODUCTS

Under most existing carbon accounting approaches it is assumed that upon harvesting a forest, all carbon in the trees is immediately emitted. This has been implemented to simplify the accounting approach on the assumption that the pool of carbon stored in wood products in use is static and that any additional use of wood products displaces current wood products in use. Obviously this does not always hold true and it has been shown in Australia's case that pool of carbon stored in wood products in use is currently increasing. Demonstrably the carbon in the forest products (timber, paper, etc) remains stored both while those products are in use and recent research has shown that for timber products it remains stored for many decades after disposal. The carbon stored in wood products in use and after disposal may keep increasing and represents a real sink.

Wood products compete primarily in building and construction markets against materials such as concrete, steel and aluminium that have much higher greenhouse footprints. There are two elements to the greenhouse benefit of timber compared to these other products – fewer emissions from the manufacturing process, and the carbon stored in timber while in use and for many years after disposal. Both components should be reflected in an emissions trading scheme.

It is possible that manufacturers of steel, concrete and aluminium building products will be shielded from the carbon cost of their products through the proposed measures to address trade-exposed, emissions-intensive industries. If an emissions trading scheme is to provide effective carbon price signals in the construction materials market it is therefore even more critical to incorporate accounting methods that appropriately credit the carbon stored in wood products.

The credibility and clarity of a carbon market signal, particularly in situations where timber competes against non-timber alternatives, is dependent on developing pricing and policy initiatives that provide incentives for producers and consumers to appropriately favour products that lead to lower emissions.

BIOENERGY

Biomass based fuels (bioenergy) can potentially make an important contribution to climate change mitigation by providing a renewable alternative to fossil fuels. Bioenergy derived from forest biomass is generally considered to be carbon-neutral in that the burning of these fuels returns carbon to the atmosphere that was only recently removed from the atmosphere through sequestration.



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The forestry sector, particularly processors with high energy requirements, have been instrumental in developing the means to utilise residual forest (processing) biomass to generate energy *in situ*, for example through combined heat and power (CHP). Forest based residual biomass (that part that remains in the forest after harvesting operations are complete) is another important, yet relatively untapped source of feedstock for bioenergy.

The importance of bioenergy, particularly with respect to avoided emissions, is that it has implications for the carbon and greenhouse gas profile of the forestry sector, it contributes to the value chain for the sector thereby influencing product use and substitution, and has important implications with respect to relevant public policy.

Forest biomass can make an important contribution to Australia's renewable energy target through, for example for transport fuels and power generation. A nationally consistent policy approach to the utilisation of forest biomass for bioenergy is required.

6. PROPOSAL

The intent is to develop mechanisms for the incorporation of forest and wood products into an emissions trading scheme that deliver on the aims outlined in Section 4 and effectively addresses the issues outlined in Section 5. More detail on the proposed treatment is provided below but in summary - *from scheme commencement in 2010, a new forest, if entered into the scheme, would generate credits in the year that the forest takes in and stores carbon and would generate an emission liability if harvested (forest accounting as proposed in the NZ emissions trading scheme).*

As soon as possible an accounting method should be developed so that all wood products in long-term use would create a credit for the carbon stored. An off-setting number of credits equivalent to the current level of long-term timber usage could be quarantined so that additional credits are not created for business-as-usual.

REFORESTATION PROJECTS

At a sector level, it is proposed that reforestation be covered from the commencement of an emissions trading scheme in Australia in 2010. If deforestation is addressed (through regulation?) and forests that are maintained are assumed to have static carbon stocks, then effectively forestry is covered. At a company or project level all reforestation projects, on a defined piece of land, after a set *eligibility date*, would have the option of entering into the scheme. The carbon storage and emissions from projects that did not enter the scheme would be borne by the Government (and would not lead to a net emission).

Once a parcel of land is entered into the scheme all carbon pool emissions and removals after a set *accreditation date* would be accounted for, as and when they occur. That is, the removal of carbon dioxide by the reforestation project could create a credit and the harvesting and associated emissions of the forest would create a liability. The *eligibility date* may precede the *accreditation date*. Note: the date from which 'reforestation' is defined may also be different (e.g., land that was non-forest in 1990).

The issue of additionality is dealt with in Section 8 - Achievement of Aims.



Reforestation projects need only consider carbon stock changes. The fertiliser and fuel use emissions will be captured in other sectors.

Credits (and liabilities) created through this means would be equivalent and fungible with other credits and permits within the scheme.

A reforestation project that had opted into the scheme could only opt out at a later date by fully reconciling all credits and liabilities created to that date.

A registry or scheme regulator would be required. Contractual obligations between the forest grower and the scheme regulator would be the basis for accreditation and compliance rather than the risk being passed on to the purchaser of the credit.

Once a project is certified it should be able to maintain that certification (as long as it is not in breach of contractual obligations). A deficiency of the current Greenhouse Friendly rules is the uncertainty resulting from the need for recertification every five years.

Deforestation of plantations that existed prior to the date defined for reforestation (if allowed by regulation) would incur a liability. The value of these forests will be reduced as a result of the reduced management options (they can no longer be converted back to agriculture) or increased costs (converting back to agriculture will incur a cost). It would be therefore be appropriate to provide some compensation to owners of these forests for the reduced asset value. This is a similar approach to that proposed for industries suffering 'disproportionate loss'. Reforestation projects established after the reforestation date that opted not to enter the scheme would not incur a liability.

It is also feasible that the approach could be extended to include reforestation by other methods (natural regeneration). Increases in forest carbon stocks through changed forest management practices and through avoided deforestation may also be worthy of consideration but are not the subject of this paper.

WOOD PRODUCTS

An Australian emissions trading scheme should aim to use an accounting method for forests and timber that 'credits' the carbon remaining in timber products while in use and after disposal. For example, by not imposing a liability on the forest grower for the carbon in timber, or allowing the carbon stored in timber employed in long-term uses (e.g., greater than 15 years: construction, furniture, etc) as an offset. It is unclear whether the accounting method could be developed in time for inclusion of harvested wood products at the time of scheme commencement in 2010. However there should be a clear commitment to develop the method and include harvested wood products as soon as possible.

There is clearly a quantity of timber currently used in such situations that represents business-as-usual storage. The potential problem of 'additionality' of timber use could be resolved, for example, by quarantining (not allocating) an annual quantity of permits equivalent to the historical use of timber for these purposes. Any concern of unduly favouring timber production is likely to be grossly outweighed by measures to maintain the competitiveness of the competing industries – albeit against imported product of the same material but with the unintended consequence of assisting these products in comparison to lower-greenhouse-footprint Australian timber.



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Utilising an approach such as this would require the establishment of factors that determine, for any project, the proportion of timber destined for long term use and disposal pathways. The project proponent would be obliged to establish and justify these factors using standard methodology and being subject to audit and monitoring.

The method for the incorporation of harvested wood products in an Australian emissions trading scheme will be the subject of a research project to be funded by Forest and Wood Products Australia. This project may, for example, propose the development of conservative factors that reflect the risk of emissions from wood products or the means by which the liability for future emissions can be attributed to a responsible entity.

Offset credits for harvested wood products could be allocated at the appropriate point along the forest - timber production – timber use, value chain. The carbon in the wood product is not lost to the atmosphere at the time of harvest suggesting that the credit may appropriately accrue to the grower. This may also be the most administratively simple method. However consideration may also be given to exposing processors, retailers and users of timber to the carbon cost of their decisions.

Two specific sub-measures are proposed to deal with characteristics of the forest sector and the imposition of emissions trading- specifically to deal with the issue of mid-rotation plantations (established after the eligibility date and before the accreditation date) and the fluctuating profile of forest carbon stocks.

BIOENERGY

Energy (including renewable energy) is proposed as a covered sector in the AETS. As such, the use of forest and processing residues to replace fossil fuels will be 'rewarded' through the carbon cost imposed on non-renewable sources and the higher price for energy. The complexities of including bioenergy in establishing the GHG profile of a sector (or entity) arise through the uncertainties associated with the assumptions that are required to estimate emissions that would have occurred in the absence of bioenergy. It is also important that no external constraints (outside the AETS) or emissions trading rules are imposed that limit the extent to which forest and processing residues could contribute abatement through energy production.

In summary from scheme commencement in 2010, a new forest, if entered into the scheme, would generate credits in the year that the forest takes in and stores carbon and would generate an emission liability if harvested.

As soon as possible an accounting method should be developed so that all wood products in long-term use would create a credit for the carbon stored. An off-setting number of credits equivalent to the current level of long-term timber usage could be quarantined so that additional credits are not created for business-as-usual.

7. KEY ISSUES

A design of this type requires decisions on a number of key issues. In some cases the detail has been proposed above and in others it has been left open. The major issues in such a design are:

ATTACHMENT B - INCLUSION OF THE FOREST AND WOOD PRODUCTS INDUSTRY IN AN AUSTRALIAN EMISSIONS TRADING SCHEME



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Coverage – it is proposed that the rules above apply to eligible reforestation projects established after the eligibility date that opt in. This concentrates the measurement and accounting effort where it will have an impact on net emissions. Deforestation is also covered. Other options include mandatory inclusion of all reforestation, coverage of all planted forests, coverage of all production forests, and coverage of all forests.

The option of mandatory inclusion of reforestation has the benefits of completeness and consistency but may suffer from the reporting burden imposed on smaller participants. The application of a threshold for mandatory participation warrants further examination and may have benefits from an industry perspective as well.

The New Zealand ETS has commenced on 1st January 2008 with reforestation as the only covered sector. The NSW GGAS has operated as a baseline and credit scheme for a number of years where reforestation projects participate in a way compatible with offset projects under a cap-and-trade scheme. In all senses discussed above – maximal coverage, minimising distortions – fully covering the reforestation sector would be best-policy. Furthermore, in all senses, participation as an offset would be better policy than exclusion from the scheme.

Eligibility date – reforestation projects are included if implemented after the eligibility date. The eligibility date has not yet been specified and may be linked to Kyoto; some other scheme; an assessment of when carbon costs became a motivating factor; or some other date.

Accreditation date – only storage (and emissions) that occur after the accreditation date would be credited. This date may be the same or later than the eligibility date and may be linked to a similar range of factors as described above.

Forests do not remove significant amounts of carbon dioxide from the atmosphere for a number of years after establishment. For that reason many organisations commenced establishment of forest offsets when a scheme seemed inevitable but prior to its announcement. An eligibility date that is earlier than the announcement of the scheme would fairly treat organisations that have been making investments based on the emerging carbon markets for some time.

Deforestation – to guard against leakage (e.g., maintenance of carbon stocks in qualified forests and deforestation of older forests) a liability would be imposed for the deforestation of any forest that existed at the reforestation date. In this context deforestation is the harvest of a forest and replacement with an alternate land use. Under current conventions harvest and re-establishment of a forest would not be seen as deforestation. Given that owners of forests, especially plantations established on farmland, would lose the option of being able to revert to another more profitable land use at a later date, it would be necessary to provide compensation for owners of these forests for their loss of value from a restriction of future options. Other approaches to deforestation could also be considered.

Accounting methodology for harvested wood products – the incorporation of harvested wood products in the manner described above requires the development of a methodology and a range of factors to be applied to activity levels, including the fate of timber in landfill. Although these are well developed for sawn forest products, it would require further work before the method could be applied robustly.



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8. ACHIEVEMENT OF AIMS

The proposed approach's achievement against the earlier stated aims (Section 4) is outlined below under the same headings:

REFLECT REAL CARBON FLOWS

The proposal reflects, as closely as can be achieved, the actual emissions and removals of carbon dioxide by the forest and wood products industry. Owners of qualified forests can create credits when the forest removes additional carbon but are exposed to liabilities when the trees are harvested and emissions occur. Manufacturers of wood products can create a credit only if the wood can be demonstrated to store carbon in the long term.

PROVIDE INCENTIVES FOR ADDITIONAL GENUINE ABATEMENT

By accurately tracking the fate of carbon through the forests and wood products cycle, the proposal provides incentives only for abatement that is genuine and additional – that is, forests can only create credits for the period of time they store carbon and timber is only credited when it results in the long-term storage of carbon.

RESPONSE TO CARBON PRICE

The proposal uses a real time accounting approach that does not constrain or lock in forest management, in contrast to a 'minimum stocks' or 'permanence' approach. As a result the management of forests will adjust in response to the carbon price. A higher carbon price will lead to not only more planting, but longer rotations and lighter harvesting of covered forests. Likewise a lower carbon price will enable forest owners to pursue other revenue streams that involve harvesting. Forest sinks will act as a mild buffer to fluctuations in the carbon price through this management response – a rising carbon price will draw in more credits through changed forest management which in turn will limit the extent of the carbon price rise. A lower carbon price may lead to a lower supply of credits from forests and a reduction in the extent of the carbon price fall.

ADDITIONAL

All reforestation projects established after the eligibility date would have the option of entering into the scheme and generating credits.

The absence of any investor (not manager of investments) with an ongoing new plantation establishment program through the 1990s, 2000s and beyond; the requirement that plantations be established on land that was clear in 1990; and that a credit can only be created (without a commensurate liability) by maintaining the carbon stocks in plantations over multiple rotations; is clearly additional to any commercial intent prior to the prospect of a carbon price.

PERMANENT

A long-term credit should only be created by the permanent or long-term storage of carbon. This is achieved in the proposal by the imposition of a liability for harvesting emissions on any forest where credits have been created. That is, a long term credit, without a commensurate liability, can only be created by the long-term or permanent storage of carbon in the forest.

It would be achieved in the case of wood products by the long-term use of the product and the ongoing storage of carbon after disposal as demonstrated from recent research.



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MEASURABLE

It has been demonstrated in the NSW GGAS that carbon stored in forests can be measured and appropriately accounted. This process has resulted in the development of an Australian Standard: AS4978.1 *Quantification, monitoring and reporting of greenhouse gases in forest projects Part 1: Afforestation and reforestation*. This Australian Standard was developed to be applicable in any emissions trading scheme with a similar architecture.

Unlike NSW GGAS, this proposal does not require the estimating of 100 year minima and therefore does not rely on the modelling of future growth. The measurement of storage is therefore more robust.

VERIFIABLE

Similarly the NSW GGAS has demonstrated that forest offsets can be independently verified to a high level of confidence and security. Under this proposal, the potential imposition of a liability for emissions and the removed, or reduced, reliance on modelling increases the credibility of the accounting.

The measurement and verification of carbon in timber would need to be developed but it is proposed to be done through research, development of factors and then ongoing monitoring and sampling, similar to many other elements of greenhouse accounting.

REAL

The proposal only credits carbon after it has been stored and any future emission whether planned (e.g., harvest) or unplanned (e.g., bushfire) would incur a liability.

BROAD COVERAGE WHERE FEASIBLE

The proposal would bring some or all reforestation activities within the scope of the scheme. This delivers on the stated objective that sectors should be 'covered' as soon as feasible. The energy and transport emissions of the sector would already be covered by the scheme.

INTERNATIONAL LINKS

There are few international models for accounting of forests to link with. The proposed accounting is consistent with New Zealand's model and the closeness of the two economies, and particularly their forest and wood product industries, would enable rapid linkage. The scheme is also broadly consistent with developing voluntary and North American models.

MANAGEABLE ADMINISTRATIVE COST

The proposed accounting is manageable and builds on the type and level of information that is available at a forest management level. The option to enter the scheme or not, allows forest owners to choose whether they wish to take on the administrative burden. The restriction of the method to reforestation projects (not all forestry) ensures that accounting is only required where carbon flows will impact the national accounts.

IMPLEMENTABLE AT ENTITY OR ENTERPRISE LEVEL

The proposed accounting method operates at a land unit level, matching the level at which forests are managed, and which information is available, within entities, enterprises or projects. The proposed method, particularly incorporating the rolling ex-post 20 year average or non-declining yield method, is also suitable for small growers.



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BOUNDARY ISSUES AND KNOCK-ON POLICY EFFECTS

There are no boundary issues or knock-on policy effects from the proposal other than providing incentives for actions that deliver abatement. The proposal addresses a major boundary issue that currently exists in the competitiveness of timber and steel in construction markets.

Inclusion of forests in an AETS may lead to the suggestion of unwanted boundary effects at the interface between forestry and agriculture in rural areas if agriculture is excluded initially from the scheme. Before accepting this thesis a number of arguments must be effectively countered by its proponents:

1. Should agriculture be excluded from an AETS? As a major proportion of Australia's emissions there is a strong argument for inclusion of agriculture.
2. If agriculture is excluded, should that be used as the basis for excluding other sectors? Every sector interfaces with many other sectors of the economy and through them, all sectors of the economy. There is thin justification for the exclusion of a sector solely on the basis that it has a boundary with another sector that may be excluded.
3. Does the inclusion of reforestation and exclusion of agriculture create a distortion? Agriculture is a net emitter, reforestation a net sink of carbon. Coverage of both sectors would minimise any distortions – acknowledging the carbon impact of both activities. It is the best theoretical policy for providing a clear carbon price signal. Excluding both sectors would fail to both cost the emissions of agriculture and credit the storage of reforestation – a significant distortion. It is poor policy for providing clear carbon price signals. Covering reforestation and excluding agriculture, though failing to credit the full carbon differential between the land uses, would at least reduce the distortion compared to both being excluded. It is a 'second-best' policy for providing clear carbon price signals.
4. Will greater distortions be created elsewhere? All parts of the economy are responsible for some level of emissions and exist adjacent to many other parts of the economy. As well as the land allocation interface between agriculture and forests, there are also impacts at the interface of timber and other building materials with higher greenhouse footprints, domestic production competing with imports, and land competition between forests and overseas companies buying or leasing agricultural land (pursuing carbon-cost-free production?).

As noted above, excluding reforestation is poor policy and would worsen the distortion between agriculture and reforestation. All the other potential distortions listed above would also be worsened if reforestation was excluded.



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Attachment C

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Garnaut Climate Change Review
Level 2, 1 Treasury Place
Melbourne VIC 3002

By email: contactus@garnautreview.org.au

5 May 2008

**Australian Forest Industry Joint Submission to the
Garnaut Climate Change Review Emissions Trading Scheme Discussion
Paper**

This submission to the Garnaut Review addresses the issue of inclusion of the forests sector in an emissions trading scheme.

The submission is supported by the organisations listed below, which collectively represent the overwhelming majority of owners and managers of Australia's existing native forests, pre-1990 plantations and post-1990 (Kyoto) plantations. It includes organisations in the public and private sector (including managed investment schemes), large and small forest growers and managers, as well as the bulk of Australia's wood and paper processing capacity.

Some of the listed organisations are also making individual submissions, which address in greater detail those matters that are particularly relevant to them.

Collectively, these organisations call for the following.

- An Australian Emissions Trading Scheme that:
 - allows optional participation of post-1990 reforestation projects through either an offset or a NZ-style inclusion, from scheme commencement;
 - incorporates the carbon stored in wood products during use and after disposal as a priority;
 - provides incentives for the use of bioenergy and does not create unnecessary impediments to the use of forest-based material for energy; and
 - includes measures to maintain the competitiveness of trade-exposed emissions-intensive elements of the forest processing industry – for example, pulp and paper and reconstituted board products.

ATTACHMENT B - INCLUSION OF THE FOREST AND WOOD PRODUCTS INDUSTRY IN AN
AUSTRALIAN EMISSIONS TRADING SCHEME

- An assessment of the merits of the future coverage of pre-1990 plantations, on the proviso that the ETS incorporates the carbon stored in wood products.
- Significant work to be undertaken to assess the implications of any form of inclusion of native forests in an ETS.

With respect to the last of the points above, these organisations register their strong concern about any proposals for the inclusion of native forests in an ETS at this stage. Any future decision to be made about the inclusion of native forest must be based on solid underpinning analysis of both the financial and carbon balance implications, conducted in consultation with native forest growers and managers and other relevant impacted parties.

Our organisations look forward to working rapidly and constructively with the Garnaut review and with the Government to further develop each of the matters listed above. A whole-of-industry forum is proposed for later in May, to consider the various elements of each of the above matters in greater detail. The organisations expect to provide the Garnaut review and the Government with the outcomes of the forum.



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Representative industry bodies

Australian Plantation Products and Paper Industry Council (A3P)

Australian Forest Growers (AFG)

Treefarm Investment Managers Association (TIMA)

NSW Forest Products Association (NSWFPA)

Timber Queensland (TQ)

Managers of current and former public production forests (also members of the representative bodies)

Forests NSW

Forest Products Commission Western Australia

Forestry Plantations Queensland

ForestrySA

Forestry Tasmania

HVP Plantations [Victoria]