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Submission to
Garnaut Climate Change Review

Issues Paper 1
Climate Change: Land use – Agriculture and Forestry

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Submission

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Introduction

This submission has been written in response to the request for comment on Issues Paper 1 released as part of the Garnaut Climate Change Review.

New Forests Pty Limited is a Sydney-based forestry asset management and advisory services business. We support investment by institutional investors (e.g. super funds, pension funds, insurance companies, foundations) in the forestry sector and manage those investments on behalf of our clients. We have a specialized business which focuses on forestry investments that are exposed to environmental markets and can deliver additional returns from carbon credits, biodiversity conservation, renewable energy development and other environmental attributes.

Investors are increasingly interested in finding investments that will contribute to solutions to climate change, land and water degradation and biodiversity conservation. Forestry investments can be unique in contributing to all three of these challenges. Our role is to source investments and manage those investments to generate returns to the investors from these emerging opportunities.

Accordingly, New Forests supports the development of an Australian Emissions Trading Scheme and welcomes the opportunity to participate in consultation on the design of the scheme. We believe that the sequestration of carbon in forests is an important component in enabling Australia to achieve emission reduction targets and that the scheme design should encourage investment in this sector to the greatest extent.

We would be happy to provide additional feedback on any of the elements in this submission.

Submission outline

The Issues Paper called for input on four key issues facing Australian agriculture and forestry as a result of climate change, and their participation in the efforts to reduce greenhouse gas emissions:

- adaptation in the agriculture and forestry sectors;
- the mitigation options for agriculture and forestry;
- the practical considerations in relation to the inclusion of agriculture and forestry in an emissions trading scheme; and
- the recognition of carbon sinks and offsets.

Given that New Forests operates primarily within the forestry sector, this submission is focussed on issues relating to forestry. In particular, our discussion of the forestry sector is limited to reforestation and afforestation and excludes timber and paper processing and the native forest management sub-sectors.

In addition to responses to the questions posed within the Issues Paper (**Section A**), we have also included further discussion of key issues that we believe are relevant for the inclusion of forestry offset projects in an emissions trading scheme for Australia (**Section B**).

SECTION A – Response to discussion points in Issues Paper 1.

Note: The headings within this section are consistent with those in the Issues Paper. New Forests has no comment where a heading from the Issues Paper is not included here.

3.2 Mitigation options for agriculture and forestry

The mitigation challenge

Questions for consideration

What potential is there for mitigation in the agricultural sector in the short term? What practical options for mitigation are likely to become commercially viable in the near future?

What incentives, policy innovations and/or market-based mechanisms would guarantee an optimal contribution to the national mitigation effort?

What is the best way to deal with trade exposure if policy measures are implemented to reduce emissions from the agriculture and forestry sector?

Comment

The issues paper makes the argument that mitigation within the agricultural and forestry sectors is difficult, and cited the following reasons for this:

- diffuse sources and sinks,
- high diversity of entities,
- high variability of emissions,
- trade exposed industries,
- highly elastic consumer markets, and,
- long-term liability.

While this may be true for the agricultural sector, New Forests believes that these arguments are less relevant to the forestry sector and, in particular, the plantation sub-sector. There is a substantial number of smaller forest growers managing plantations for forest products, as well as biodiversity outcomes. However, the greatest potential for large-scale sequestration of carbon is within the commercial plantation sector, in which there are a limited number of highly sophisticated operators.

Forestry organisations within Australia have been considering the potential opportunities relating to carbon sequestration for many years, and there is a good understanding of the systems and processes required to accurately estimate carbon stocks within forests. Most forest growers already collect data that is suitable for forming the basis of carbon stock calculations, and this should be recognised in differentiating between opportunities in forestry and agriculture.

Experience from the NSW Greenhouse Gas Abatement Scheme (GGAS) shows that it is possible to quantify carbon sequestration in forests, and the Scheme provides a framework upon which policy for a national emissions trading scheme can be based. In particular, the mechanisms used within the GGAS to ensure that long-term compliance obligations are met by forestry growers has considerable merit.

One criticism of the GGAS framework is that the compliance costs and obligations render the scheme inaccessible to smaller forest growers. For this reason New Forests does not believe that the forestry should be a covered sector in the initial stages of an emissions trading scheme, but that the inclusion of forestry through a provision for offset projects is appropriate. Providing a framework for offset projects will allow project proponents within eligible sectors to decide whether or not the benefits of participation outweigh the costs of compliance and maintenance obligations,

and this will vary between organisations. This will also allow time for the development of information and systems that can be applied to reduce compliance and maintenance costs for smaller scale forest growers.

Mitigation policy options

Questions for consideration

Accepting existing practical limitations, is direct inclusion in an ETS the most appropriate mechanism for encouraging mitigation in the agriculture and forestry sectors?

What policy mechanisms would be more appropriate for these sectors? How would these measures interact with an ETS covering other emitting sectors?

What would be the economic impacts on the agriculture and forestry sectors of a domestic ETS covering stationary energy and transport?

Comment

As discussed above, New Forests believes that direct inclusion of agriculture and forestry is not the best option to encourage mitigation. Instead, the framework for an emissions trading scheme should include a mechanism for offset credits from a wide range of project types. These offset credits could be traded into the regulatory market to help meet obligations within covered sectors, be available for sale into the voluntary market, and also potentially be traded internationally when appropriate linkages are established. This will increase liquidity within the marketplace, increase investment in mitigation projects, and provide the opportunity to achieve least cost emissions abatement across all sectors.

The cost of fuel for use in establishment and harvesting operations as well as transport of harvested material to market is a significant component of the cashflow of forestry operations. It is therefore likely that increased energy costs resulting from coverage of the transport sector will impact on viability of the forestry sector (both plantation and native forest sectors). If the aim is to maximise the development of carbon sequestration in forests, then scheme design needs to provide adequate incentive for ongoing investment and management rather than simply imposing additional costs.

The emissions/removals profile of forestry sequestration projects is dominated by the sequestration of atmospheric CO_2, with relatively minor contribution of emissions of non-CO_2 gases. In fact, when compared with alternative land uses (e.g. grazing), the emission of non-CO_2 gases is generally lower in the forestry operation. In addition, accounting for these non-CO_2 emissions is generally much more complex than accounting for the sequestration in trees. Given this, New Forests believes that forestry offset projects should only need to account for the change in carbon stock within the forest, and that emissions from non-CO_2 emissions should be excluded from calculations. This approach will reduce the complexity of accounting and reduce compliance costs, while at the same time providing an added level of conservatism, and is consistent with the approach used in the GGAS and the NZ ETS.

Providing opportunities

Questions for consideration

What are the opportunities available to the agriculture and forestry sectors as a result of mitigation policies?

How should uptake of these opportunities be maximised?

Do these opportunities create perverse outcomes and, if so, how should these be managed?

Comment

There is considerable potential for sequestration in planted forests, with greater carbon benefit from permanent plantings and production forests managed on longer rotations. However, the majority of investment in new planted forests within Australia over the past decade has been in short rotation crops managed for fibre production, largely through Managed Investment Schemes.

Investment in longer rotation and permanent crops, which can provide additional benefits with respect to balance of trade, biodiversity and salinity, has been limited for reasons which include:

- Uncertainty in long-term carbon policy. The only regulatory scheme (GGAS) was originally legislated to run only until 2012, and development of a national emissions trading scheme has been slow. Forestry related carbon offset projects are a long-term investment, requiring reasonable certainty for project proponents over decades.
- Limited extent of existing regulatory markets. Only forests planted within NSW are eligible for inclusion in the GGAS.
- Existing rule sets do not encourage investment. Since the Greenhouse Friendly Program was started in 2001 only 2 forestry related projects have been accredited. Key rules that discourage participation include: (a) re-certification every 5 years, with potential that project eligibility can be revoked – this creates significant uncertainty for investors, (b) requirement for financial additionality, (c) some of the liability for non-compliance is passed through to the buyers of credits, reducing market confidence in the credits. These elements are discussed further in Section B.

Investment in abatement projects within the forestry sector can be maximised by providing a framework that overcomes these limitations and provides adequate incentive for investment. In particular the framework should provide:

- Long-term certainty with respect to project eligibility.
- Coverage Australia wide, with potential for international linkages.
- Additionality using the GGAS ruleset or at most have a requirement for multiple rotations as sufficient evidence for financial additionality (discussed further in Section B).
- Retention of liability for reversal events by the project proponent, so that buyers of credits have no potential liability for something over which they have no control. The GGAS approach is a good example of this.

3.3 Practical considerations for including agriculture and forestry in an emissions trading scheme

Point of obligation

Questions for consideration

Do the economic efficiency gains from including small emitters in an ETS justify the costs of compliance?

How could transaction costs be minimised?

What should be the point of obligation for agriculture and forestry industries in an ETS?

Comment

As discussed above, New Forests does not believe that it is appropriate for forestry (or agriculture) to be a covered sector under an emissions trading scheme, at least until adequate systems are in place to ensure that compliance costs do not disproportionately disadvantage the smaller growers in the sector. The inclusion of forestry and agriculture through offset project mechanisms will allow

voluntary participation whereby individual organisations (growers/farmers) can judge whether or not the costs of compliance are justified given the benefit that may accrue.

Transition towards forestry becoming a covered sector, or at least greater participation from across the planted forest sector, would be facilitated through the development of appropriate information and systems to reduce compliance costs for forest growers. For example these could include:

- Accounting systems that provide reasonable accuracy in estimating carbon sequestration, while allowing flexibility for project proponents to select a system that is appropriate to their level of data and expertise.
- Public release of relevant data currently held by government organisations, for use in developing growth and yield models and biomass equations.
- Mechanisms for aggregation of smaller forest owners into efficient management units.

Under a model where the forestry sector is involved in the emissions trading scheme through the provision of offset credits it seems logical that the point of obligation should rest with the landowner or owner of carbon sequestration rights for the land.

Monitoring and verification of emissions and mitigation

Questions for consideration

What 'proxies' would be appropriate for the estimation of emissions in the agriculture and forestry sub-sectors?

What systems are available that would allow for efficient and accurate monitoring of emissions at the operator level?

What are the implications if the stringency of monitoring, reporting and verification requirements vary between sectors and sub-sectors?

Comment

The science of estimating carbon sequestration rates in forests is well developed, and there is considerable technical expertise in this field within Australia. Carbon accounting systems can generally be developed as an extension of the management information systems that form part of standard operational activity within commercial forestry operations.

New Forests believes that it is not reasonable to expect to achieve accurate estimation of carbon sequestration within forests without basing these estimates on key measurement data (e.g. basal area, stand height, planted area). However, the use of proxies may be appropriate in developing systems that enable participation of smaller forest growers who do not have the datasets that are collected as part of a commercial forestry operation. Crediting based on these systems would need to recognise the inherently greater uncertainty associated with estimates of carbon sequestration.

It is important to provide a framework where there is the flexibility to allow the use of a range of accounting procedures, recognising that participants will vary in their technical expertise and available data. An approach similar to that proposed for the NZ ETS, whereby the scheme prescribes which methods can be used but provides a range of options, would be acceptable as long as the approved methods were appropriate.

New Forests does not support the mandatory use of the National Carbon Accounting Toolbox for estimation of carbon sequestration in offset projects within an ETS. The toolbox is an excellent tool for national level accounting but is not appropriate for use at the project level. Our experience indicates that model outputs from the toolbox are highly sensitive to the assumptions that are made in parameterising the model, yet there is limited data to support this parameterisation process.

Many government forestry organisations have datasets that would be appropriate for use in developing systems for carbon accounting. It would be useful to make these datasets publicly available to give best opportunity for reliable estimates across all forests.

With respect to the stringency of monitoring, reporting and verification requirements, New Forests does not believe that it is realistic to expect that there will be a single system that is appropriate for use across all sectors within an ETS, or even across all offset project types. Arrangements for monitoring and reporting should take into account differences in uncertainty associated with the estimation methodology, conservatism of estimates, and the consequences of errors in estimation.

Sub-sectoral coverage

Questions for consideration

Should all agriculture and forestry sub-sectors be included in an ETS? What sub-sectors might be better suited for inclusion?

How should economic distortions within the sectors be dealt with?

Comment

As discussed above, New Forests believes that it is not appropriate for the forestry sector to be included as a covered sector at this stage but that the forestry sector should be able to participate through the creation of offset credits. Flexibility to include a wide range of eligible project types will allow individuals and organisations to determine whether participation is economically justified. This will foster innovation across the forestry sector and will provide a basis for the development of information and systems that can potentially be used across the entire sector.

Possible distortions include:

- disproportionate effects on eligible and ineligible stands
- providing greater benefit to larger forest owners, less to small growers

Adoption of the proposal by PM&C to use June 2007 as the project start date for eligible projects will disproportionately disadvantage the owners of plantations planted before this date, providing the perverse incentive to move operations to new land at the end of the current rotation. Therefore, the eligibility rules should allow for greater inclusion of forests, in accordance with the Kyoto Protocol definitions. If NZ approach is adopted – whereby a liability is imposed at harvest for stands planted prior to a certain date but these stands cannot otherwise be included in a carbon pool – then there must be adequate compensation for the fact that the ongoing management options (and value) for these lands has been reduced.

It is possible that forest mangers with larger estates will benefit to a greater extent than those will smaller estates for a number of reasons:

a) trends in carbon stock can be smoothed to a greater extent in larger estates

b) risks can be better managed across a larger estate

c) compliance costs can be spread across a larger base, and,

d) managers with larger estates are likely to have greater resources and a wider skill base to draw on for accreditation and carbon accounting.

To reduce the impact of these factors, it is essential that mechanisms for the aggregation of smaller growers into larger, more efficient carbon pools be developed. This applies equally for inclusion of forestry only through offsets as well as if forestry is a covered sector.

Phasing and timing

Questions for consideration

If a domestic ETS excludes agriculture and forestry initially, but includes them at a later point in time:

What are the advantages/disadvantages of involving these sectors in the scheme through the inclusion of offsets, or an 'opting in' baseline and credit trading scheme?

What sort of transitional arrangements should be incorporated in the initial design?

Comment

A staged approach will allow for the development of adequate data and systems to facilitate participation at a reasonable transaction cost. This is particularly important for smaller forest owners who do not have the resources to develop and implement systems independently. The initial inclusion of forestry offset projects in the scheme will provide incentive for organizations and/or cooperatives to invest in the development of these datasets and systems that can then be used if forestry becomes a covered sector.

We would not support the development of a stand-alone baseline-credit scheme that has a different rule set for accounting to the formal ETS. This would create a second-tier credit that would most likely be of much lower value, thereby not providing adequate incentive for participation. The t-CER and l-CER credits within the CDM are examples of second-tier credits that have lower market acceptance.

There will need to be some flexibility within the scheme rules to allow for the fact that not all smaller forest growers will be in a position to participate in the ETS due to higher proportional transaction costs. Having a minimum size threshold is a way to deal with this. Also, it should be recognized that participants within the sector will have differing capacity to develop and implement accounting procedures. The New Zealand approach of having a range of approved accounting methodologies with differing levels of sophistication and accuracy and differing levels of built-in conservatism is recommended.

3.4 Recognition of carbon sinks and offsets

Prior mitigation action

Offsets and international frameworks

Questions for consideration

What types of carbon sink and mitigation measures should be included as offsets or within an ETS? Are there practical and cost effective monitoring solutions available for these measures?

How should positive incentives to reduce emissions or perverse incentives to increase emissions prior to inclusion in an ETS be managed?

Should offset regimes recognised under an Australian ETS be limited to those that satisfy international carbon accounting protocols?

Comment

Scheme design should allow for as wide a range of offset project types as possible to encourage innovation and provide the opportunity for least cost abatement across the economy. Administrative arrangements, methodologies and systems are well developed for reforestation projects (e.g. arrangements under the GGAS), but there has been less emphasis on project relating to management of existing forests. However, providing a framework for inclusion of different project types will provide incentive for development of methodologies and systems.

Perverse incentives arising from a time lag between scheme design and implementation are less of an issue in the forestry sector than they are for other sectors due to the fact that the majority of abatement projects in forestry relate to the sequestration of carbon (removals enhancement) rather than emissions reduction. The potential impacts of perverse incentives could be reduced by allowing participants to create credits from activity undertaken prior to the start of the scheme. It may be possible to use data from 2007 as baseline rather than 2008-09, although baseline development is less important for reforestation projects if they are only accounting for carbon stock.

The concept of international consistency is good, but it is not necessarily desirable in all cases. For example, within the CDM forestry offset projects can only generate temporary credits. This is due largely to the limited legal framework of land ownership in many of the countries where CDM projects are developed. In contrast, Australia has comprehensive property rights legislation that forms the basis of long-term commitments under the NSW GGAS, allowing for equivalence of credits between forestry and other project types.

We support the inclusion of harvested wood products but recognise that considerable development of the mechanisms for its application is required. With respect of other international programs, the design of an Australian emissions trading scheme should recognise the very high level of complexity (and cost) associated with accreditation under the CDM (and presumably JI as well), and therefore aim to achieve a simpler system with lower compliance costs.

Section B – Further discussion of elements of scheme design relating to forestry offset projects

Requirement for financial additionality

New Forests does not believe the financial additionality test should apply to forest projects. However if government policy requires a financial additionality test for forestry projects, New Forests argues that the criteria should be satisfied by projects that sequester carbon beyond a single rotation.

The reason for this is that the majority of new plantations (first rotation) established in Australia since the mid 1990s have occurred within the managed investment scheme (MIS) sector. The investors in these plantations are not long term investors, and generally commit only to the planting and management of a single forestry rotation. There is no obligation on the investor to replant the crop after harvest.

There is no guarantee that the new plantation estate established by the MIS sector will be replanted in the second rotation. It is possible at least some of the estate will not be replanted due to lower than expected returns, reflecting a combination of productivity (growth) on some sites, market prices and costs. Additionally, any changes to the current tax arrangements which reduce the incentive for investment into the MIS sector could also impact reforestation rates for subsequent rotations.

Since the cessation of broadscale native clearing in Australia, emissions from landuse change have stabilised and reduced. However based on the New Zealand experience, it is possible that Australia's emissions could increase from the conversion of plantation land to non-plantation land. This is consistent with what we have seen in New Zealand in recent years, although the reasons for deforestation in New Zealand are different.

Such an outcome would be inconsistent with the objective of achieving long-term land use change (a reversal of the deforestation that has occurred in Australia over the past centuries), and the long-term storage of carbon in these forest estates. However, access to an emissions market would provide an additional income stream to forestry investors, thereby providing incentive for replanting after harvest of the first and subsequent rotations.

Periodic review of project accreditation

Both the Greenhouse Friendly Program and GGAS have provision for the periodic review of project accreditation for forestry offset projects. New Forests believes that this is reasonable, provided that it is used primarily as a mechanism to ensure that project proponents have met obligations arising from accreditation and the sale of offset credits. New Forests does not support the current Greenhouse Friendly ruleset which provides no certainty that the ruleset for accreditation will not change markedly over time, and that a project that was initially eligible will not be excluded from eligibility at the time of recertification even if all previous conditions have been met.

Forestry investments are inherently made on a long-term timeframe. In the vast majority of cases the guaranteed sale of carbon credits only over the first five years of a forestry project will not provide sufficient revenue to cover the costs of accreditation and ongoing maintenance and reporting obligations. Unless an investor can be confident that the accreditation framework will allow for the generation of credits over the medium term (10 to 20 years) the risk associated with potential variation in eligibility will provide a disincentive to investment in forestry offset projects.

Liability relating to obligations to maintain carbon stocks

The current frameworks for forestry offset projects operating in Australia differ markedly in the way that they deal with liabilities associated with the long-term obligation to maintain carbon stock. Under GGAS, the liability is held solely by the parties involved in the creation of credits (landowner, owner of carbon sequestration rights, carbon pool manager). In contrast, under the Greenhouse Friendly Program some of the liability for reversal events is passed through to the buyer of offset credits.

New Forests believes that the transfer to the buyer of some of the liability for the long-term maintenance of carbon stocks within a forestry offset project is not appropriate. This reduces the credibility and attractiveness of forestry offset credits because the buyer has no management control over the forest and therefore is not able to effectively manage risk associated with potential reversal events (e.g. fire).

In addition, the current arrangement under Greenhouse Friendly are not practical because forestry offset providers cannot adequately control their legal liability from the sale of offset credits. This will increase transaction costs for the sale of forestry offset credits and increase the risk premium that investors will place on forestry offset projects, thereby reducing total investment in abatement projects.

New Forests proposes that an Australian emissions trading scheme adopt arrangements similar to those under the NSW GGAS, whereby offset providers have a legal liability to the scheme administrator (to ensure compliance) and that buyers of offset credits have no legal liability or obligation to maintain carbon stocks over the long term.